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FIGURE 1

CTGCAGGCGTCGCGCCAATCTTCGCTCTGAGGTGCTGTCTCACCGGTGAGACCTGGAAGCGGGCGAGTCTCGTGC
TGTGTCGGACCTGCAGCCCCTGGCCTTCCGCCACCATGGAGTACCTCATCGGTATCCAAGGCCCCGACTATGTTC
TTGTCGCCTCCGACCGGGTGGCCGCCAGCAATATTGTCCAGATGAAGGACGATCATGACAAGATGTTTAAGATGA
GTGAAAAGATATTACTCCTGTGTGTTGGAGAGGCTGGAGACACTGTACAGTTTGCAGAATATATTCAGAAAAACG
TGCAACTTTATAAGATGCGAAATGGATATGAATTGTCTCCCACGGCAGCAGCTAACTTCACACGCCGAAACCTGG
CTGACTGTCTTCGGAGTCGGACCCCATATCATGTGAACCTCCTCCTGGCTGGCTATGATGAGCATGAAGGGCCAG
CGCTGTATTACATGGACTACCTGGCAGCCTTGGCCAAGGCCCCCTTTGCAGCCCACGGCTATGGTGCCTTCCTGA
CTCTCAGTATCCTCGACCGATACTACACACCGACTATCTCACGTGAGAGGGCAGTGGAACTCCTTAGGAAATGTC
TGGAGGAGCTCCAGAAACGCTTCATCCTGAATCTGCCAACCTTCAGTGTTTGAATCATTGACAAAAATGGCATCC
ATGACCTGGATAACATTTTCCTTCCCCAAACAGGGCTCCTTAACATCATGTCCTCCCTCCCCTTGCCAGGGAACCTT
TTTTTTGATGGGCTCCTTTATTTTTTCTACTCTTTTCAGGCGCACTCTTGATAAATGGTTAATTCAGAATAAAG
GTGACTATGGATATAATTGAAAAAA

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FIGURE 2

MEYLGIGQPDYVLVASDRVAASNIVQMKDDHDKMFKMSEKILLLCVGEAGDTVQFAEYIQKNVQLYKMRNGYEL
SPTAAANFTRRNLDCLRSRTPYHVNLLLAGYDEHEGPALYYMDYLAALAKAPFAAHGYGAFLTLSILDRIYYTPT
ISRERAVELLRKCLEELQKRFILNLPTFSVRIIDKNGIHDLDNISFPKQGS

CTCCGGCGCAGTGTGTGGGACTGTCCTGGGTATCGGAAAGCAAGCCCTACGTTGCTCACTATTACGTATAATCCTTTT
CTTTTCAAGATGCTGAGGAAGTGCACCATGGAGAGGAGGAGGTGGAGACTTTTGCCTTTTCAGGCAGAAATTGCC
CAACTCATGTCCCTCATCATCAATACCTTCTATTCCAACAAGGAGATTTTCCTTCGGGAGTTGATCTCTAATGCT
TCTGATGCCCTTGGACAAGATTGCTATGAGAGCCTGACAGACCCTTCGAAGTTGGACAGTGGTAAAGAGCTGAAA
ATTGACATCATCCCAACCCCTCAGGAACGTACCCTGACTTTGGTAGACACAGGCATTGGCATGACCAAAGCTGAT
CTCATAAATAAATTTGGGAACCATTGCCAAGTCTGGTACTAAAGCATTTCATGGAGGCTCTTCAGGCTGGTGCAGAC
ATCTCCATGATTGGGCAGTTTGGTGTGGCTTTTATTCTGCCTACTTGGTGGCAGAGAAAGTGGTTGTGATCACA
AAGCACAAACGATGATGAACAGTATGCTTGGGAGTCTTCTGCTGGAGGTTCCCTTCACTGTGCGTGCTGACCATGGT
GAGCCCATTTGGCAGGGGTACCAAAGTGATCCTCCATCTTAAAGAAGATCAGACAGAGTACCTAGAAGAGAGGCGG
GTCAAAGAAGTAGTGAAAGAAGCATTTCTCAGTTTCATAGGCTATCCCATCACCCTTTATTTGGAGAAGGAACGAGAG
AAGGAAATTAGTGATGATGAGGCAGAGGAAGAGAAAGGTGAGAAAGAAGAGGAAGATAAAGATGATGAAGAAAAA
CCCAAGATCGAAGATGTGGGTTTCTGATGAGGAGGATGACAGCGGTAAGGATAAGAAGAAGAAAACTAAGAAGATC
AAAGAGAAATACATTGATCAGGAAGAACTAAACAAGACCAAGCCTATTTGGACCAGAAACCCCTGATGACATCACC
CAAGAGGAGTATGGAGAATTCTACAAGAGCCTCACTAATGACTGGGAAGACCCTTGGCAGTCAAGCACTTTTCT
GTAGAAGGTCAGTTGGAATTACAGGGCATTGCTATTTATTCTCTCGTTCGGGCTCCCTTTTGACCTTTTTTGAGAACAAG
AAGAAAAAGAACAACATCAAATCTATGTCGCCCGTGTGTTTCATCATGGACAGCTGTGATGAGTTGATACCAGAG
TATCTCAATTTTATCCGTGGTGTGGTTGACTCTGAGGATCTGCCCCCTGAACATCTCCCGAGAAATGCTCCAGCAG
AGCAAAATCTTGAAAGTCAATTCGCAAAAACATTGTTAAGAAGTGCCTTGAGCTCTTCTCTGAGCTGGCAGAAGAC
AAGGAGAATTACAAGAAATTCTATGAGGCATTCTCTAAAAATCTCAAGCTTGGAAATCCACGAAGACTCCACTAAC
CGCCGCCGCCTGTCTGAGCTGCTGCGCTATCATACCTCCCAGTCTGGAGATGAGATGACATCTCTGTGAGAGTAT
GTTTCTCGCATGAAGGAGACACAGAAGTCCATCTATTACATCACTGGTGAGAGCAAAGAGCAGGTGGCCAACTCA
GCTTTTGTGGAGCGAGTGCAGAAACGGGGCTTCGAGGTGGTATATATGACCGAGCCCATTGACGAGTACTGTGTG
CAGCAGCTCAAGGAATTTGATGGGAAGAGCCTGGTCTCAGTTACCAAGGAGGGTCTGGAGCTGCCTGAGGATGAG
GAGGAGAAGAAGAAGATGGAAGAGAGCAAGGCAAAGTTTGAGAACCCTCTGCAAGCTCATGAAAGAAATCTTAGAT
AAGAAGGTTGAGAAGGTGACAATCTCCAATAGACTTGTGTCTTCACTTGTCTGATTGTGACCAGCACCTACGGC
TGGACAGCCAATATGGAGCGGATCATGAAAGCCAGGCACCTTCGGGACAACCTCCACCATGGGCTATATGATGGCC
AAAAAGCACCTGGAGATCAACCCTGACCACCCCATTTGTGGAGACGCTGCGGCAGAAGGCTGAGGCCGACAAGAAT
GATAAGGCAGTTAAGGACCTGGTGGTGTCTGCTGTTTGAACCGCCCTGCTATCTTCTGGCTTTTCCCTTGAGGAT
CCCCAGACCCACTCCAACCGCATCTATCGCATGATCAAGCTAGGTCTAGGTATTGATGAAGATGAAGTGGCAGCA
GAGGAACCCAATGCTGCAGTTCTGATGAGATCCCCCTCTCGAGGGCGATGAGGATGCGTCTCGCATGGAAGAA
GTGATTAGGTTAGGAGTTCATAGTTGGAAAACCTTGTGCCCTTGTATAGTGTCCCCATGGGCTCCCACTGCAGCC
TCGAGTGGCCCTGTCCCACCTGGCTCCCCCTGCTGGTGTCTAGTGTTTTTTTTCCCTCTCCTGTCCTTGTGTTGAA
GGCAGTAAACTAAGGGTGTCAAGCCCCATTCCCTCTCTACTCTTGACAGCAGGATTGGATGTTGTGTAATTGTGGT
TTATTTTATTTTCTTCATTTTGTCTGAAATTAAAGTATGCAAAATAAAGAATATGCCGTTTTTAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAA

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FIGURE 4

MPPEVHHGEEEVETFAFQAEIAQLMSLIINTFYSNKEIFLRELISNASDALDKIRYESLTDP SKLDSGKELKIDI
IPNPQERTLTTLVDTGIGMTKADLINNLGTIAKSGTKAFMEALQAGADISMIGQFGVGFYSAYLVAEKVVVITKHN
DDEQYAWESSAGGSFTVRADHGEPIGRGTKVILHLKEDQTEYLEERRVKEVVKKHSQFIGYPITLYLEKEREKEI
SDDEAEEEEKGEKEEEDKDDEEKPKIEDVGSDEEDDSGKDKKKKTKKIKEYIDQEELNKTPIWTRNPDDITQEE
YGEFYKSLTNDWEDHLAVKHFSVEGQLEFRALLFIPRRAPFDLFENKKKKNNIKLYVRRVFIMDSCDELIPEYLN
FIRGVVDSEDLP LNISREMLQQSKILKVIRKNIVKKCLELFS ELAEDKENYKKFYEA FSKNLKLG IHEDSTNRRR
LSELLRYHTSQSGDEMTSLSEYVSRMKETQKSIYYITGESKEQVANS AFVERVRKRGFEVVYMT EPIDEYCVQQL
KEFDGKSLVSVTKGLELPEDEEEKKKMEESKAKFENLCKLMKEILDKKVEKVTISNRLVSSPCCIVTSTYGWTA
NMERIMKAQALRDNSTMGYMAKKHLEINPDHP IVETLRQKAEADKNDKAVKDLVLLFETALLSSGFSLEDPQT
HSNRIYRMIKLGLGIDEDEVAAEEPNA AVPDEIPPLEGDEDASRMEEVD

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FIGURE 5

GAATTCGGGGCC**ATG**AGCTGCCCCGTGCCCGCCTGCTGCGCGCTGCTGCTAGTCCTGGGGCTCTGCCGGGCGCGT
CCCCGGAACGCACTGCTGCTCCTCGCGGATGACGGAGGCTTTGAGAGTGGCGCGTACAACAACAGCGCCATCGCC
ACCCCGCACCTGGACGCCTTGGCCCGCCGCAGCCTCCTCTTTGCAATGCCTTCACCTCGGTACAGAGCTGCTCT
CCCAGCCGCGCCAGCCTCCTCACTGGCCTGCCCCAGCATCAGAATGGGATGTACGGGCTGCACCAGGACGTGCAC
CACTTCAACTCCTTCGACAAGGTGCGGAGCCTGCCGCTGCTGCTCAGCCAAGCTGGTGTGCGCACAGGCATCATC
GGGAAGAAGCACGTGGGGCCGAGACCGTGTACCCGTTTGACTTTGCGTACACGGAGGAGAATGGCTCCGTCCTC
CAGGTGGGGCGGAACATCACTAGAATTAAGCTGCTCGTCCGGAATTCCTGCAGACTCAGGATGACCGGCCTTTC
TTCTCTACGTCGCCTTCCACGACCCCCACCGCTGTGGGCACTCCAGCCCCAGTACGGAACCTTCTGTGAGAAG
TTTGGAACGGAGAGAGCGGCATGGGTCTATCCCAGACTGGACCCCCAGGCCTACGACCACTGGACGTGCTG
GTGCCTTACTTCGTCCCCAACACCCCGGCAGCCGAGCCGACCTGGCCGCTCAGTACACCACCGTCGGCCGCATG
GACCAAGGAGTTGGACTGGTGTCTCAGGAGCTGCGTGACGCCGGTGTCTTGAACGACACACTGGTGTCTTCACG
TCCGACAACGGGATCCCCCTTCCCCAGCGGCAGGACCAACCTGTACTGGCCGGGCACTGCTGAACCCCTTACTGGTG
TCATCCCCGGAGCACCCAAAACGCTGGGGCCAAGTCAGCGAGGCCTACGTGAGCCTCCTAGACCTCACGCCACC
ATCTTGGATTGGTTCTCGATCCCGTACCCAGCTACGCCATCTTTGGCTCGAAGACCATCCACCTCACTGGCCGG
TCCCTCCTGCCGGCGCTGGAGGCCGAGCCCTCTGGGCCACCGTCTTTGGCAGCCAGAGCCACCACGAGGTACCC
ATGTCTTACCCCATGCGCTCCGTGCAGCACCGGCACCTTCCGCTCGTGCACAACCTCAACTTCAAGATGCCCTTT
CCCATCGACCAGGACTTCTACGTCTCACCCACCTTCCAGGACCTCCTGAACCGCACACAGCTGGTCAGCCCACG
GGCTGGTACAAGGACCTCCGTCACTACTACCGGGCGCGCTGGGAGCTCTACGACCGGAGCCGGGACCCCCAC
GAGACCCAGAACCTGGCCACCGACCCGCGCTTTGCTCAGCTTCTGGAGATGCTTCGGGACCAGCTGGCCAAGTGG
CAGTGGGAGACCCACGACCCCTGGGTGTGCGCCCCGACGGCGTCTGGAGGAGAAGCTCTCTCCCCAGTGCCAG
CCCCCTCCACAATGAGCTG**TGAC**CATCCCAGGAGGCCTGTGCACACATCCCAGGCATGTCCCAGACACATCCCACA
CGTGTCCGTGTGGCCGGCCAGCCTGGGGAGTAGTGGCAACAGCCCTTCCGTCCACACTCCCATCCAAGGAGGGTT
CTTCTTCTCTGTGGGGTCACTCTTGCCATTGCCTGGAGGGGGACCAGAGCATGTGACCAGAGCATGTGCCCAGCC
CCTCCACCACCAGGGGCACTGCCGTCTATGGCAGGGGACACAGTTGTCTTGTGTCTGAACCATGTCCCAGCACGG
GAATTCTAGACATACGTGGTCTGCGGACAGGGCAGCGCCCCAGCCCATGACAAGGGAGTCTTGTTTTCTGGCTT
GGTTTGGGGACCTGCAAAATGGGAGGCCTGAGGCCCTTTCAGGCTTTGGCAGCCACAGATACTTCTGAACCCCTC
ACAGAGAGCAGGCAGGGGCTTCGGTGCCGCGTGGGCAGTACGCAGGTCCCACCGACACTCACCTGGGAGCACGGC
GCCTGGCTCTTACCAGCGTCTGGCCTAGAGGAAGCCTTTGAGCGACCTTTGGGCAGGTTTCTGCTTCTTCTGTTT
TGCCCATGGTCAAGTCCCTGTTCCCCAGGCAGGTTTTCAGCTGATTGGCAGCAGGCTCCCTGAGTGATGAGCTTGA
ACCTGTGGTGTCTTCTGGGCAGAAAGCTTATCTTTTTTGAGAGTGTCCGAAGATGAAGGCATGGCGATGCCCGTCTT
CTGGCTTGGGTAAATTCTTCGGTGACACTGGCATTGCTGGGTGGTGTATGCCCGTCTCTGGCTTGGGTAAATTCT
TCGGTGACACTGGCGTTGCTGGGTGGCAATGCCCGTCTCTGGCTTGGGTAAATTCTTCGGTGACACTGGCGTTG
CTGGGTGGCGATGCCCGTCTCTGGCTTGGGTAAATTCTTGATGACGTCGGCGTTGCTGGGAGAATGTGCCGTT
CCTGCCCTGCCTCCACCCACCTCGGGAGCAGAAGCCCGGCCTGGACACCCCTCGGCCCTGGACACCCCTCGAAGGA
GAGGGCGCTTCCTTGAGTAGGTGGGCTCCCCTTGCCCTTCCCTCCCTATCACTCCATACTGGGGTGGGCTGGAGG
AGGCCACAGGCCAGCTATTGTAAAAGCTTTTT

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FIGURE 6

MSCPVPACCALLLVGLCRARPRNALLLADDGGFESGAYNNSAIATPHLDALARRSLLFRNAFTSVSSCSPSRA
SLLTGLPQHONGMYGLHQDVHHFNSFDKVRSLPLLLSQAGVRTGIIIGKKHVGPETVYPDFAYTEENGSVLQVGR
NITRIKLLVRKFLQTQDDRFFFLYVAFHDPHRCGHSQPQYGTFCCKFGNGESGMGRIPDWTPQAYDPLDVLVPYF
VPNTPAARADLAAQYTTVGRMDQGVGLVLQELRDAGVLNDTLVIFTSDNGIPFPGRNLYWPGTAEPLLVSSPE
HPKRWGQVSEAYVSLDLTPTILDWFSIPYPSYAIFGSKTIHLTGRSLLPALEAEPLWATVFGSQSHHEVTMSYP
MRVQHRHFRVLVHNLNFKMPFFIDQDFYVSPTFQDLLNRRTAGQPTGWYKDLRHYYRARWELYDRSRDPHETQN
LATDPRFAQLLEMLRDQLAKWQWETHDPWVCAPDGVLEEKLSPOCQPLHNEL

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FIGURE 7

TATATTGGCAGTTATTGAGGGTAAAGCAATATATTGTAACAGAATGTATAAAATATTTTTGATAAAACAGTCTATA
TTTTATTAAAAAATGAATTATAACCCATTTTCAGTTTTGCCTGCATCATAAGAGTGAGCACTCCATTGCTTTCTT
TCCTGGCCACACTGCTACAATCCAGCACTAACTATCCATGTCCAGGGTAAGGATCGAGATCGAGAAGCCACACT
GCCAGTGAAAAAGCTACGCTTTTACTGCATAAATTAGAGGAAGCAATTTGGAACAACGGAACCTTCAAACCTATA
AATACTGAATTATCGAACACTTGCCAGGCACTTCAGCAGAAGACAAGGAACTGAAGAAGCTTTTTAGATGAGGA
ATTTCTCACTATGATTCCCTGTCCTGCGCAGATGCAATTCAACAACCTCTTCAAGAAAAATTGAAGCAGTGTTG
CCACAAACTATATGGTGGTCAAGAAGCAAGAATACATCAGACACCCCTGACCTTGAAACATACGTGCTGGTACAC
ACCTCTGCTGGATGCTTATCTCTGGATAGTTTTACAGCAGTTCCAACCTGGAATCAACACCTTTCTCAGGTGT
AGCCAACCAAATCCCACTCTGTGTGAAAGGCCACATATGGAGAAGTAAAGGATGGTGTCTTGGATGTAAAAAG
ACAACACAAGTGCCAGGCCCCACAAGTGGCCCCAGCCCAGGAACGAATCTCTCAGGCTGCATCAGGATGAATGA
TGACCCAAGTATGGAAGAGAATGGTGTGAAAGCGTGTGTCTGAGAGCCTGCTGCAGTCCAGGGGATATTCCTC
ACTACCATTACCCAGACACACTTCATCGACAGACGGTACTATAACTTCAAGTGATCCTGGATTAGAAATCTGAA
TATGGCTTCTTGTGACCTTGACAGAACTCGCTCTGTGAAGAAAGAGGAGGATACAAGATCAGCTTCTCCCACGAT
AGAGGCCCAAGGCACAAGTCCAGCTCATGATAATATTGCATTCCAAGACTCTACGAGTAAGGATAAAACCATATT
AAATCTGGAAGCCAAAGAGGAACCAGAAACAATAGAAGAACATAAAAAAGAACATGCTTCAGGAGACTCTGTGGT
TTCCCTCTTCTGTAACTGTGAAATCGGTTAACGTTAGACAAAGTGAGAACACTTCTGCTAATGAGAAGGA
GGTGGAGGCAGAAATTTCTCAGATTATCTTTGGGATTTAAGTGTGACTGGTTTACCTTGGAGAAGAGAGTGAAGCT
TGAAGAGAGGTCCCGTGAAGTGGGCAGAGAAAATTTGAAGAAAGAAATCACTAATCTTTAAACTATTAGAGTC
TTTAACACCTCTGTGTGAAGATGACAACAGGCACAGGAAATCATTAAGAAGCTGGAGAAGAGTATAAAGTTTCT
TAGCCAGTGTGCAGCACGAGTGGCCAGTAGGGCTGAGATGTTGGGAGCCATCAATCAGGAAAGCCGGGTTAGTAA
AGCAGTTGAAGTGATGATTGAGCACGTAGAAAACCTTGAAGAGGATGTATGCCAAAGAGCACGCTGAATTAGAAGA
ACTGAAACAGGTTCTTCTGCAGAAATGAAAGGTCTTTCAATCCTCTTGAAGATGATGATGACTGCCAAATTAAGAA
ACGTTTCACTTCTCTAACTCCAAGCCATCTTCTCTACGAAGAGTGACTATTGCCTCTTTACCCAGAAATATTGG
AAATGCAGGAATGGTGGCTGGGATGGAAATAATGATCGATTGATGAGGTAAGGTAAGCAGTTGGCGTATTTTGGG
GTCAAAGCAGAGTGAACACCGTCCCTCATTACCTCGATTTATTAGCACCTATTCCTGGGCAGATGCTGAAGAAGA
AAAATGTGAACTAAAACTAAAGATGACTCAGAGCCATCTGGAGAAGAAACAGTAGAAAGGACAAGGAAGCCAAG
TCTTTCTGAAAAGAAAAATAATCCATCAAAGTGGGATGTCTCTTCACTTATGACACAATAGCTTCTTGGGCAAC
AAATCTCAAGTCTCCATCAGAAAGGCTAATAAGGCCCTCTGGCTCTCTATTGCATTCACTGTACTGTTTGCAGC
TTTGATGAGCTTCTCACAGGCCAATTATTCCAGAAGTCTGTGGATGCCGCTCCACACAGCAAGAGGACTCATG
GACGTCTCTAGAACATATCTTGTGGCCATTTACCAGACTCCGACACAATGGGCCACCACAGTGTGACAGCAGGA
CATCCTAATATATGGATCTTGATTTTAAAGTTTCACTATCTGAACTTCGTAAATTAGTAACTTTTAGCTGGGAAA
GTATAGCATGAAACCAGAGGTTCTCAGAATGACCGTAAGATAGCTTACATTTCTCTTTTTGCCTTTATCTCCCC
AACTAAATACAATGGG

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FIGURE 8

MESTPFGVANQIHTLCERPTYGEVKDGDVLRQHKCPGPTSGPSPGTNLSGCIRMNDDPSMEENGVERVCPES
LLQSRGYSSLPLPRHTSSTDGTITSSDPGLEILNMASCDLDRNSLCKKEEDTRSASPTIEAQGTSPAHDNIAFQD
STSKDKTILNLEAKEEPETIEEHKKEHASGDSVVSPLPVTTVKSVNVRQSENTSANEKEVEAEFLRLSLGFKCDW
FTLEKRVKLEERSRDWAEENLKKEITNSLKLLES LTPLCEDDNQAQEIIKKLEKSIKFLSQCAARVASRAEMLGA
INQESRVSKAVEVMIQHVENLKRM YAKEHAELEELKQVLLQNERSFNPLEDDDDCQIKKRSASLNSKPSSLRRVT
IASLPRNIGNAGMVAGMENNDRFSRRSSSWRILGSKQSEHRPSLPRFISTYSWADAEEEKCELKTKDDSEPSGEE
TVERTRKPSLSEKKNNPSKWDVSSVYDTIASWATNLKSSIRKANKALWLSIAFIVLFAALMSFLTGQLFQKSVD
APTQQEDSWTSLEHILWPFTRLRHNGPPP

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FIGURE 9

AGTAATTCCGGGAAGCTCGCCTTACAACCTCCGCGCGGCCTCGGCCCCCTGCGCCGCCCGCCCCACAACAAACTC
AGCGCAGCGCTCCCGGGCGCCCGGTTTCAGAGCGACCTGCGGCTCAGAGCGGAGGGGAGACTGACCGGAGCGCGGA
TCGGGACAGCGGCCGGGACAGCGGCGAGACGCGCGTGTGTGAGCGCGCCGGACCAAGCGGGCCCAGAAGCGGGTC
TGCAGCCCAGAGGGCACCTTCTGCAAAACATGTCTGTGGATCCCCTATCCAGCAAAGCTCTAAAAGATCAAGCGAGA
GCTGAGCGAGAACACGCCGCACCTGTTCGGACGAGGCGCTGATGGGGCTGTTCGGTGC GCGAGCTGAACCGGCATCT
GCGCGGGCTCTCCGCCGAGGAGGTGACACGGCTCAAGCAGCGGCGCCGCACACTCAAAAACCGTGGCTACGCCGC
CAGCTGCCGCGTGAAGCGCGTGTGCCAGAAGGAGGAGCTGCAGAAGCAGAAGTCGGAGCTGGAGCGCGAGGTGGA
CAAGCTGGCGCGCGAGAACGCCGCCATGCGCCTGGAGCTCGACGCGCTGCGCGGCAAGTGCAGGCGCTGCAGGG
CTTCGCGCGCTCCGTGGCCGCCGCCCGCGGGCCCCGCCACGCTCGTGGCGCCGGCCAGCGTCATCACCATCGTCAA
GTCCACCCCGGGCTCGGGGTCTGGCCCCGCCACGGCCCCGACCCCGCCACGGCCCCGGCCTCCTGCTCCTAGTG
CCCGCCCCGCCATGCCTCAGCCACGCCCTCCGGCCTCAGTCCCTCCCCAAAGTGCTGAGCGCCGCCCTCTGT
GCCAGGTCCCATTTCTCTGCAGCACTGGCCCCCTTGGTGCACACACATTCCCTTCGTGGGCCCTGTCTTCCTCTT
GCAGCCCCCAAAGTGGGACCGAATGACCCCTGGGAAGGGGAAGTGGGTAGGTTGGGGATGGGGCAGAGGTCTGG
ATCTGGGATCGCCCTTGGCTGAAAAGTTTAGCCTTTTTAGATTGAGAGATACAGAGCCGGCTTAGAGAACAGCTGT
TGGGGGAGAAGAGGGCACCCCTCATCTTGGAAACTGCTCTTATTGTGCCAATATGCCCTCCAAACCTCCCAGGA
TTCAAAGCTAGGTTTGGCTGTCTGTGACTTACGGGACCGTCCCTGCTGAGAAATTGCACTGAAGAGATGCCCCAC
CTCTGGTTGGGCCTGGGGGTGCCTGGCCTTCCGAAACTAAAAGAGTGGGTGGGAAGACTAGTGAAACCCAGTTCA
CGGATGGGGAAACAGGCCTGAGGTCACATTTCACTTAGTGGTTGTGTTGGGACCAAAACCTGGGTGTCTCACTG
CTGCCCTGAGTCCAGCCATGGTTTTTCAGGGGGACAGTGGACAGGGACTCAGAAATGTGGTGGGAGGGCCTCCCTG
GCTTGGGAGACCGCTCTCTGCAAGGGAGGGGGAGAGAAGCAGAGGGAGAGAGAAGGTGACACGGATGGAAGAGTG
GGAAGGAGCTGGCCTGGCTCAGCCCTAGGCTGTCCCTGCAGCCAGGGTGTCCGGGGGCTGGCCAGTCAGAGAAAG
GGGGCCATGGACTGCTGTGGCAAATAGGGAGACAAGGAGACAGACCCTGCAGTCCTACTACAGTCTGGAGTGGGG
TCCTAAGAAGAAGGGTCCACCTCAACCCCTGTCAGTGTCCACTGTGGGGTGGGGGCTGACCCCTGCCTTTGATT
GTCATTCTCCTGGGAAGCCCAGTCTCAGTCCCTCCCCAACACTGTCCACACTGCCCCCTCCCCACTGTTTTATTTA
TTGCACGGATCTAAGTTATTCTCCCCAGCCAGAGCCCCGAGCTCCTGCTCCCTGGGAAAAGTGCGGTATGGCCCTG
AGCTGGGCTTTATATTTTATATCTGCAAAATAAATCACATTTTATCTTATATTTAGGGAAAGCCGGAGAGCAACAA
CAAAAAATGTTTAAAGCCGGGCGCGGTGGCTCACATCTGTAATCCCAGCACTTTGGGAGTCCAAGGAGGGGGATCG
CTTGAGTCCAGGAGTTTGAGACCAGCCTGGACAACATGGTGAACCCCGTCTCTACAAAAAATACAAAAATTAGC
CATGCATGGTGGCTCATGCCTGTAGTCCCAGCTACTTGGGAGGCTGAGGCAGGAGGATCACTTAAGCCCAGAAGG
CAGAGGTTGTAGTGAGCTGAGATCGCACCCTGCACTCCAGCCTGGGCAACATAGCAAAATCCTGTCTCAAAAAA
AAAGTTAAAAAATATTGCCCGGCTCCTAGAATTTATTTATTTTCTGACTTACAGCAAGCGAGTTATCGTCTTCTG
TATTTTGTAGACTTTCTAAATAAAGTCAAATTTCTTTCTTTTTCACAGAGAAAAAA

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FIGURE 10

MSVDPLSSKALKIKRESENTPHLSDEALMGLSVRELNRHLRGLSAEEVTRLKQRRRTLKNRGYAASCRVKRVCQ
KEELQKQKSELEREVDKLARENAAMRLELDALRGKCEALQGFARSVAAARGPATLVAPASVITIVKSTPGSGSGP
AHGPDPAHGPPASCS

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FIGURE 11

ACGCGTCCGCTTCGGAATGAGAGACTCAACCATAATAGAAAGAATGGAGAACTATTAACCACCATTCTTCAGTGG
GCTGTGATTTTCAGAGGGGAATACTAAGAAATGGTTTTCCATACTGGAACCCAAAGGTAAAGACACTCAAGGACA
GACATTTTTGGCAGAGCATAGATGAAAAATGGCAAGTTCCTGGCTTTCCTTCTGCTCAACTTTTCATGTCTCCCTC
TTCTTGGTCCAGCTGCTCACTCCTTGCTCAGCTCAGTTTTCTGTGCTTGGACCCTCTGGGCCCATCCTGGCCATG
GTGGGTGAAGACGCTGATCTGCCCTGTCACCTGTTCCCGACCATGAGTGCAGAGACCATGGAGCTGAGGTGGGTG
AGTTCCAGCCTAAGGCAGGTGGTGAACGTGTATGCAGATGGAAGGAAGTGGAAGACAGGCAGAGTGCACCATAT
CGAGGGAGAACTTCGATTCTGCGGGATGGCATCACTGCAGGGAAGGCTGCTCTCCGAATACACAACGTACAGCC
TCTGACAGTGGAAAGTACTTGTGTTATTTCCAAGATGGTGACTTCTACGAAAAAGCCCTGGTGGAGCTGAAGGTT
GCAGCATTGGGTTCTGATCTTCACATTGAAGTGAAGGGTTATGAGGATGGAGGGATCCATCTGGAGTGCAGGTCC
ACTGGCTGGTACCCCCAACCCCAAATAAAGTGGAGCGACACCAAGGGAGAGAACATCCCGGCTGTGGAAGCACCT
GTGGTTGCAGATGGAGTGGGCCTGTATGCAGTAGCAGCATCTGTGATCATGAGAGGCAGCTCTGGTGGGGGTGTA
TCCTGCATCATCAGAAATTCCCTCCTCGGCCCTGGAAAAGACAGCCAGCATATCCATCGCAGACCCCTTCTTCAGG
AGCGCCAGCCCTGGATCGCGGCCCTGGCAGGGACCCTGCCTATCTCGTTGCTGCTTCTCGCAGGAGCCAGTTAC
TTCTTGTGGAGACAACAGAAGGAAAAAATTGCTCTGTCCAGGGAGACAGAAAGAGAGCGAGAGATGAAAGAAATG
GGATACGCTGCAACAGAGCAAGAAATAAGCCTAAGAGAGAAGCTCCAGGAGGAACTCAAGTGGAGGAAAATCCAG
TACATGGCTCGTGGAGAGAAGTCTTTGGCCTATCATGAATGGAAAATGGCCCTCTTCAAACCTGCGGATGTGATT
CTGGATCCAGACACGGCAAACGCCATCCTCCTTGTTTTCTGAGGACCAGAGGAGTGTGCAGCGTGTGAAGAGCCG
CGGGATCTGCCAGACAACCTGAGAGATTTGAATGGCGTTACTGTGTCTTGGCTGTGAAAACCTTCACATCAGGG
AGACATTACTGGGAGGTGGAAGTGGGGGACAGAAAAGAGTGGCATATTGGGGTATGTAGTAAGAACGTGGAGAGG
AAAAAAGGTTGGGTCAAAATGACACCGGAGAACGGATACTGGACTATGGGCCTGACTGATGGGAATAAGTATCGG
GCTCTCACTGAGCCAGAACCAACCTGAACTTCCTGAGCCTCCTAGGAAAGTGGGGATCTTCTTGACTATGAG
ACTGGAGAGATCTCGTTCTATAATGCCACAGATGGATCTCATATCTACACCTTTCGCACGCCTCTTTCTCTGAG
CCTCTATATCCTGTTTTTCAAAATTTGACCTTGGAGCCCACTGCCCTGACCATTTGCCCAATACCAAAAGAAGTA
GAGAGTTCCCCCGATCCTGACCTAGTGCCTGATCATTCCCTGGAGACACCACTGACCCCGGGCTTAGCTAATGAA
AGTGGGGAGCCTCAGGCTGAAGTAACATCTCTGCTTCTCCCTGCCACCCCTGGAGCTGAGGTCTCCCTTCTGCA
ACAACCAATCAGAACCATAAGCTACAGGCACGCACTGAAGCACTTTACTGATATTTCATTCCATTATTCCATATGA
CAGTTGTTTTGAGTTTTCGTACCACCTTATTGTCCCCTTATACAGATAAGGAAACTGGGGTGCAGAAAGGTGAATT
AACTTTACAAAGTAGACATGACAAGTGAACAGCAGAGCTGGGATCTAAACAGCAATAACTAACATTAAACAGAGAA
TTTAAATGTTCTTAGTGCTGTGTTATAAGCTTTGGTGGATGTCACTCCTTTAATCCTCACAACACCCTGTGCGG
TAGTCATATTTTGAAGTATGGAAGCTGAGGCAGGGCAACATGAAGTAACCTTACATAATTCATACAGTAATTTGT
GCAGTTGGGAGATGTTACGCCTTAGTCCCTGGCTAATTGCCTGTTCTTTTCCAGCCTGATTTTTTTTCCACAGG
AAGAGCCACATGTAGCCCTGAGGTTTCCTTCCAGGACAGCTGCAGGGTAGAGATCATTTTAAGTGCTTGTGGA
GTTGACATCCCTATTGACTCTTTCAGCTGATATCAGAGACTTAGACCCAGCACTCCTTGATTAGCTCTGCAG
AGTGTCTTGGTTGAGAGAATAACCTCATAGTACCAACATGACATGTGACTTGGAAAGAGACTAGAGGCCACACTT
GATAAATCATGGGGCACAGATATGTTCCACCCAAACAAATGTGATAAGTGATTGTGCAGCCAGAGCCAGCCTTCC
TTCAATCAAGGTTTCCAGGCAGAGCAAATACCCTAGAGATTCTCTGTGATATAGGAAATTTGGATCAAGGAAGCT
AAAAGAATTACAGGGATGTTTTTAATCCCACTATGGACTCAGTCTCCTGGAAATAGGTCTGTCCACTCCTGGTCA
TTGGTGGATGTTAAACCCATATTCTTTCAACTGCTGCCTGCTAGGGAAAAGTGTCTCCTCATTATCATCACTATT
ATTGCTCACCCTGTATCCCTCTACTTGGCAAGTGGTTGTCAAGTTCTAGTTGTTCAATAAATGTGTTAATAAT
GAAAAAAAAA

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FIGURE 12

MKMASSLAFLLLNFHVSFLVQLLTPCSAQFSVLGSPGPILAMVGEDADLPCHLFPTMSAETMELRWVSSSLRQV
VNVYADGKEVEDRQSAPYRGRTSILRDGITAGKAALRIHNVTASDSGKYLCYFQDGFYEKALVELKVAALGSDL
HIEVKGYEDGGIHLECRSTGWYPQPQIKWSDTKGENIPAVEAPVVADGVGLYAVAASVIMRGSSGGGVSCIIRNS
LLGLEKTASISIA DPFFRSAQPWIAALAGTLPISLLLLAGASYFLWRQQKEKIALSRETEREREMKEMGYAATEQ
EISLREKLQEELKWRKIQYMARGEKSLAYHEWKMALFKPADVILDPDTANAILLVSEDQRSVQRAEEPRLPDNP
ERFEWRYCVLGCENFTSGRHYWEVEVGDRKEWHIGVCSKNVERKKGWVKMTPENGYWTMGLTDGNKYRALTEPRT
NLKLPEPPRKVGIFLDYETGEISFYNATDGSHIYTFPHASFSEPLYPVFRILTLEPTALTICPIPEVESSPDPD
LVPDHSLETPLTPGLANESGEPQAEVTSLLLPAHPGAEVSPSATTNQNHKLQARTEALY

FIGURE 13A

CCGGGCTGCGCGGCGAGGCTGAGCCGGGCCCCGGGCGCCGGGGCCGGGGCGGGCTGGCGCGGGCAGGAAGCGCCTC
GCGGACCCGGGCCCCGCCCCCGCTCCCGCCGCCTCCGGGCTCCCGGCTCCCGGCCGCGCCTCGCCCCATGCACT
CGCCGCGCGCGCAGCCCGCGCACGCCCGGATGGCTCCTCGCGCCGCGGGCGGCGCACCCCTTAGCGCCCGGGCC
GCCGCGCCAGCCCCCGCGTTCAGACGCCGCGCGGTGCCCGGTGCCGCTGCTGTTGCTGCTGCTCCTGGGG
GCGGCGCGGGCGGGCGCCCTGGAGATCCAGCGTCGGTTCCCTCGCCACGCCACCAACAACCTTCGCCCTGGAC
GGCGCGGCGGGGACCGTGACCTGGCGGCCGTCAACCGCCTCTATCAGCTGTCGGGCGCCAACCTGAGCCTGGAG
GCCGAGGCGGCCGTGGGCCCGGTGCCGACAGCCCGCTGTGTACGCTCCGCACTGCCGAGGCCTCGTGCGAG
CACCCGCGGCGCCTCACGGACAACATAACAAGATCCTGCAGCTGGACCCCGGCCAGGGCCTGGTAGTCGTGTGC
GGGTCCATCTACCAGGGCTTCTGCCAGCTGCGGCGCCGGGGTAACATCTCGGCCGTGGCCGTGCGCTTCCCGCCC
GCCGCGCCGCCCGGAGCCCGTCACGGTGTTCCCGAGCATGCTGAACGTGGCGGCCAACCACCCGAACGCGTCC
ACCGTGGGGCTAGTTCTTGCTCCCGCCGCGGGCGCGGGGGGAGCCCGCTGCTCGTGGGCGCCACGTACACCGGT
TACGGCAGCTCCTTCTTCCCGCGCAACCGCAGCCTGGAGGACCACCGCTTCGAGAACACGCCCGAGATCGCCATC
CGCTCCCTGGACACGCGCGGCGACCTGGCCAAGCTCTTACCTTCGACCTCAACCCCTCCGACGACAACATCCTC
AAGATCAAGCAGGGCGCCAAGGAGCAGCACAAGCTGGGCTTCGTGAGCGCCTTCTGCACCCGTCCGACCCGCCG
CCGGGTGCACAGTCTACGCGTACCTGGCGCTCAACAGCGAGGCGCGCGCGGGCGACAAGGAGAGCCAGGCGCGG
AGCCTGCTGGCGCGCATCTGCCTGCCCCACGGCGCCGGCGGGCGACGCCAAGAAGCTCACCGAGTCTACATCCAG
TTGGGCTTGCACTGCGCGGGCGGCGGGGCCGCGGCGACCTCTACAGCCGCTGGTGTGCGTCTTCCAGCCCGG
GAGCGGCTCTTTGCTGTCTTCGAGCGGCCCCAGGGTCCCCCGGGCCCGCGCTGCTCCGGCCGCACTCTGCGCC
TTCCGCTTCGCCGACGTGCGAGCCGCCATCCGAGCTGCGCGCACCGCCTGCTTCGTGGAACGGCGCCCGACGTG
GTGGCGGTGCTCGACAGCGTGGTGCAGGGCACGGGACCGGCTGCGAGCGCAAGCTCAACATCCAGCTCCAGCCA
GAGCAGCTGGACTGTGGAGCTGCTCACCTGCAGCACCGCTGTCCATCCTGCAGCCCTGAAGGCCACGCCCGTG
TTCCGCGCCCCGGGCTCACCTCCGTGGCCGTGGCCAGCGTCAACAACATACACAGCGGTCTTCTGGGCACGGTC
AACGGGAGGCTTCTCAAGATCAACCTGAACGAGAGCATGCAGGTGGTGAAGCAGGCGGGTGGTGAAGTGTGGCCTAT
GGGGAGCCCGTGACCATGTGATGCAGTTTGACCCAGCAGACTCCGTTTACCTTTACCTGATGACGTCCCACCAG
ATGGCCAGGGTGAAGGTGCGCCCTGCAACGTGCACTCCACCTGTGGGGACTGCGTGGGTGCGGCGGACGCCTAC
TGCGGCTGGTGTGCCCTGGAGACGCGGTGCACCTTGACGAGGACTGCACCAATTCCAGCCAGCAGCATTCTTG
ACCAGTGCCAGCGAGGGCCCCAGCGCTGTCTGCCATGACCGTCTGCTTCCGAGATCGATGTGCGCCAGGAG
TACCCAGGCATGATCCTGCAGATCTCGGGCAGCCTGCCAGCCTCAGTGGCATGGAGATGGCCTGTGACTATGGG
AACAACATCCGCACTGTGGCTCGGGTCCCAGGCCCTGCCTTTGGTACCAGATTGCCTACTGCAACCTCCTGCCG
AGGGACCAGTTTCCGCCCTTCCCCCCAACCAGGACCACGTGACTGTTGAGATGTCTGTGAGGGTCAATGGGCGG
AACATCGTCAAGGCAATTTACCATCTACGACTGCAGCCGCACTGCACAAGTGTACCCCCACACAGCCTGTACC
AGCTGCCTGTGCGCACAGTGGCCCTGTTTCTGGTGCAGCCAGCAGCACTCCTGTGTTTCCAACAGTCTCGGTGC
GAGGCCTACCAAACCCACGAGCCCTCAGGACTGCCCCCGGACCCCTGCTCTACCCCTGGCACCCGTGCCTACG
GGTGGCTCCCAGAACATCCTGGTGCCTCTGGCCAACACTGCCTTTTCCAGGGTGACCCCTGGAGTGTAGTTTT
GGGCTGGAGGAGATCTTCGAGGCTGTGTGGGTGAATGAGTCTGTTGTACGCTGTGACCAGGTGGTGTGACACG
ACCCGGAAGAGCCAGGTGTTCCCGCTCAGCCTCCAACATAAGGGGCGGCCAGCCCGATTCTGGACAGCCCTGAG
CCCATGACAGTCATGGTCTATAACTGTGCCATGGGCAGCCCCGACTGTTCCAGTGCCTGGGCCGCGAAGACCTG
GGTACCTGTGCATGTGGAGTGATGGCTGCCGCTGCGGGGGCCTCTGCAGCCATGGCTGGCACCTGCCCGCC
CCCGAGATCCGCGCGATTGAGCCCTGAGTGGCCCGTTGGACGGTGGGACCCTGCTGACCATCCGAGGAAGGAAC
CTGGGCCGGCGGCTCAGTGACGTGGCCACGGCGTGTGGATTGGTGGTGTGGCCTGTGAGCCACTGCCTGACAGA
TACACGGTGTGCGAGGAGATCGTGTGTGTACAGGGCCAGCCCCAGGACCACTCTCAGGTGTGGTGACCGTGAAC
GCCTCTAAGGAGGGCAAGTCCCGGGACCGCTTCTCCTACGTGCTGCCCTGGTCCACTCCCTGGAGCCTACCATG
GGCCCCAAGGCCGGGGGACACAGGATCACCATCCATGGGAATGACCTCCATGTAGGCTCCGAGCTCCAGGTCTTG
GTGAACGACACAGACCCCTGCACGGAGCTGATGCGCACAGATACCAGCATCGCCTGCACCATGCCTGAGGGGGCC
CTGCCGGCTCCGGTGCCTGTGTGTGTGCGCTTCGAGCGTCGGGGCTGCGTGCACGGCAACCTCACCTTCTGGTAC
ATGCAGAACCCGGTCAACAGGCCATCAGTCCCCGCGCAGCCCTGTGAGTGGCGGCAGGACCATCACAGTGGCT
GGTGAGCGTTTCCACATGGTGCAGAATGTGTCCATGGCCGTCCACCACATTGGCCGGGAGCCACGCTCTGCAAG
GTTCTCAACTCCACCCTCATCACCTGCCCGTCCCCGGGGCCCTGAGCAACGCATCAGCGCCAGTGGACTTCTTC

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FIGURE 13B

ATCAATGGGCGGGCCTACGCAGACGAGGTGGCTGTGGCTGAGGAGCTACTGGACCCCGAGGAGGCACAGCGGGGC
AGCAGGTTCCGCCTGGACTACCTCCCCAACCCACAGTTCTCTACGGCCAAGAGGGAGAAGTGGATCAAGCACCAC
CCCGGGGAGCCTCTCACCCTCGTTATCCACAAGGAGCAGGACAGCCTGGGGCTCCAGAGTCACGAGTACCGGGTC
AAGATAGGCCAAGTAAGCTGCGACATCCAGATTGTCTCTGACAGAATCATCCACTGCTCGGTCAACGAGTCCCTG
GGCGCGGCCGTGGGGCAGCTGCCCCATCACAATCCAGGTAGGGAACCTCAACCAGACCATCGCCACACTGCAGCTG
GGGGGTAGCGAGACGGCCATCATCGTGTCCATCGTCATCTGCAGCGTCTGCTGCTGCTCTCCGTGGTGGCCCTG
TTCGTCTTCTGTACCAAGAGCCGACGTGCTGAGCGTTACTGGCAGAAGACGCTGCTGCAGATGGAGGAGATGGAA
TCTCAGATCCGAGAGGAAATCCGCAAAGGCTTCGCTGAGCTGCAGACAGACATGACAGATCTCACCAAGGAGCTG
AACCGCAGCCAGGGCATCCCCCTTCTGGAGTATAAGCACTTCGTGACCCGCACCTTCTTCCCCAAGTGTTCCTCC
CTTTATGAAGAGCGTTACGTGCTGCCCTCCCAGACCCTCAACTCCCAGGGCAGCTCCCAGGCACAGGAAACCCAC
CCACTGCTGGGAGAGTGGAAAGATTCTTGAGAGCTGCCGGCCCAACATGGAAGAGGGGAATTAGCTTGTCTCTCTCA
CTACTCAACAACAAGCACTTCTCTATCGTCTTTGTCCACGCGCTGGAGCAGCAGAAGGACTTTGCGGTGCGCGAC
AGGTGCAGCCTGGCCTCGCTGCTGACCATCGCGCTGCACGGCAAGCTGGAGTACTACACCAGCATCATGAAGGAG
CTGCTGGTGGACCTCATTGACGCCTCGGCCGCCAAGAACCCCAAGCTCATGCTGCGGCGCACAGAGTCTGTGGTG
GAGAAGATGCTCACCAACTGGATGTCCATCTGCATGTACAGCTGTCTGCGGGAGACGGTGGGGGAGCCATTCTTC
CTGCTGCTGTGTGCCATCAAGCAGCAAATCAACAAGGGCTCCATCGACGCCATCACAGGCAAGGCCCGCTACACA
CTCAATGAGGAGTGGCTGCTGCGGGAGAACATCGAGGCCAAGCCCCGGAACCTGAACGTGTCTTCCAGGGCTGT
GGCATGGACTCGCTGAGCGTGGCGGCCATGGACACCGACACGCTGACACAGGTCAAGGAGAAGATCCTGGAGGCC
TTCTGCAAGAATGTGCCCTACTCCAGTGGCCGCGTGCAGAGGACGTGACCTTGAGTGGTTGCGCTCCAGCACA
CAGAGCTACATCCTTCGGGACCTGGACGACACCTCAGTGGTGGAAAGACGGCCGCAAGAAGCTTAACACGCTGGCC
CATTACAAGATCCCTGAAGGTGCCCTCCCTGGCCATGAGTCTCATAGACAAGAAGGACAACACACTGGGCCGAGTG
AAAGACTTGACACAGAGAAGTATTTCCATTTGGTGTGCCTACGGACGAGCTGGCGGAGCCCCAAGAAGTCTCAC
CGGCAGAGCCATCGCAAGAAGGTGCTCCCGGAAATCTACCTGACCCGCTGCTCTCCACCAAGGGCACGTTGCAG
AAGTTTCTGGATGACCTGTTCAAGGCCATTCTGAGTATCCGTGAAGACAAGCCCCACTGGCTGTCAAGTACTTT
TTCGACTTCTGAGGAGCAGGCTGAGAAGAGGGGAATCTCCGACCCGACACCTACACATCTGGAAGACCAAC
AGCCTTCTCTCCGTTCTGGGTGAACATCCTGAAGAACCCCCAGTTTGTCTTTGACATCGACAAGACAGACCAC
ATCGACGCCTGCCTTTTACGTATCGCGCAGGCCCTTCATCGACGCCTGCTCCATCTCTGACCTGCAGCTGGGCAAG
GATTCGCCAACCAACAAGCTCCTCTACGCCAAGGAGATTCTGAGTACCGGAAGATCGTGCAGCGCTACTACAAG
CAGATCCAGGACATGACGCCGCTCAGCGAGCAAGAGATGAATGCCATCTGGCCGAGGAGTCGAGGAAATACCAG
AATGAGTTCAACACCAATGTGGCCATGGCAGAGATTTATAAGTACGCCAAGAGGTATCGGCCGCAGATCATGGCC
GCGCTGGAGGCCAACCCACGGCCCGGAGGACACAACCTGCAGCACAAGTTTGAGCAGGTGGTGGCTTTGATGGAG
GACAACATCTACGAGTGCTACAGTGAGGCCTGAGACACATGGAGAGTTGGTCAGGCTGCTGCTGGGAGAAATGGA
CGCCCACTGGGCCTCAACTTGATCTTCTACCCGTCCTGTGACTCAGACTGGGAAATACTGAGCAGAGACGGCT
GGGGCGGGGCAGGAGGAGGGGCTGCTCTCTGAGACAGGGGCGCCCCGCTTGACCCCTGGGCACCTCCATCCC
CTCCACCTGTCCCAGATCAGTCTCTGGGATGGAGGCCAGAGAGCTGGTCAGGCTCCCCCATCTGCCAGCACG
GCCTGCACTGTGCCCACCACTTGCTCCACAACTCCAGTTGGTCTCTGCTGCCAAGAGCCCCGTGCATCCAGGCG
GCCAAGCACAACTGGGGGAGAGGAGGCCGCCAGCCGGAGGCTGCAGCCCAGAACTCTACCTCATCCACACTG
GTGCAGGGAGCCCTCCTTGAAGTACCTTTGATTGGTTTCTGCTTCAACTACCAAAATGTTATCTCCACTTCCCC
CTACCCGTAGAGGATCCTGGCCACAGACAGTTTCAAGTAGTGTGAGATTTTGTGTTGCTTGGGCGGCTGTTGGTA
GAGTGGGCAGTGCCCGCGCCATGGGGTGTCTGTGGGCTTCTCCAGGAGCAGGGAGGGTGGAGGGGAGGGATGGG
GGGCACAGGAGCTGGGAGCCCCGTCTCCAGGAAAAGGAGAGGGGTTAAGATGCACCGAGGCTGTAGCTGGGCTAC
TTGATCTTGCTGAAAGTGTCTTCTAAAGATAGCACCCTTTTTTTTTTAAAGCTTTTATATATTAACCAACGTATC
ATGC

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FIGURE 14

PGCAARLSRARAPGPGAAGAGRKRLADPGPPPASRRLRAPGSRPRLAPCTRRAAQPAAHARMAPRAAGGAPLSARA
AAASPPPFQTPPRCPVPLLLLLLLGAARAGALEIQRRFPSPTPTNNFALDGAAGTVYLAAVNRLYQLSGANLSLE
AEAAGVPVPSPLCHAPQLPQASCEHPRRLTDNYNKILQLDPGQGLVVVCGSIYQGFCQLRRRGNISAVAVRFPP
AAPPAEPVTVFPSMLNVAANHPNASTVGLVLPPAAGAGGSRLLVGATYTYGSSFFPRNRSLEDHRFENTPEIAI
RSLDTRGDLAKLFTFDLNPSSDNILKIKQGAKEQHKLGFVSAFLHPSDPPPGAQSYAYLALNSEARAGDKESQAR
SLLARICLPHGAGGDAKKLTESIQLGLQCAGGAGRGDLYSRLVSVFPARERLFAVFERPQGSFAARAAPAALCA
FRFADVRAAIRAARTACFVEPAPDVVAVLDSVVQGTGPACERKLNQLQPEQLDCGAHLQHPLSILQLKATPV
FRAPGLTSVAVASVNNYTAVFLGTVNGRLLKINLNESEQVVSRRVTVAYGEPVHHVMQFDPADSVLYLMTSHQ
MARVKVAACNVHSTCGDCVGAADAYCGWCALETRCTLQDCTNSSQQHFWTSASEGPSRCPAMTVLPSEIDVRQE
YPGMILQISGSLPSLSGMEMACDYGNNI RTVARVPGPAFGHQIAYCNLLPRDQFPFPNPDHVTVEMSVRVNGR
NIVKANFTIYDCSRTAQVYPHTACTSCLSAQWPCFWCSQQHSCVSNQSRCEASPNPTSPQDCPRTLSPPLAPVPT
GGSQNILVPLANTAFFQGAALECSFGLEEIFEAVWVNESVVRCDQVVLHTRKSQVFPLSLQLKGRPARFLDSPE
PMTVMVYNCAMGSPDCSQCLGREDLGHLCMWSDGCRRLRGPLQPMAGTCPAPEIRAIEPLSGPLDGGTLLTIRGRN
LGRRLSDVAHGVWIGGVACEPLPDRTVSEEIVCVTGPAAGPLSGVTVNASKEGKSRRDRFSYVLPVLVHSLEPTM
GPKAGGTRITIHGNDLHVSELQVLVNDTDPCTELMRTDTSIAC TMPEGALPAPVPVCVRFERRGCVHGNLTFWY
MQNPVITAISPRRSPVSGGRTITVAGERFHMVQNVSMVHHIGREPTLCKVLNSTLITCPSGALSNASAPVDF
INGRAYADEVAVAEELLDPEEAQRGSRFRDLPLNPQFSTAKREKWKHHHPGEPLTLVIHKEQDSLGLQSHEYRV
KIGQVSCDIQIVSDRIIHCSVNESLGAAVGQLPITI QVGNFNQTIATLQLGGSETAIIVSIVICSVLLLLSVVAL
FVFCTKSRAERYWQKTLQMEEMESQIREEIRKGF AELQDMDTLTKELNRSQGIPFLEYKHVTRTFFPKCSS
LYEERYVLPSQTLNSQGSSQAQETHPLLGEWKIPESCRPNMEEGISLFSLLNNKHFLIVFVHALEQQKDFAVRD
RCSLASLLTIALHGKLEYYSIMKELLVDLIDASAANKPKMLLRTE SVVEKMLTNWMSICMYSCLRETVGEPFF
LLLCAIKQQINKGSIDAITGARYTLNEEWLLRENIEAKPRNLNVSFQCGMDSL SVRAMD TDTLTQVKEKILEA
FCKNVPYSQWPRAEDVDLEWFASSTQSYILRDLDDTSVVEDGRKKLNTLAHYKIPEGASLAMSLIDKKDNTLGRV
KDLDTKEYFHLVLP TDELAEPKKSHRQSHRKKVLPEIYLTRLLSTKGT LQKFLDDLKAILSIREDKPPLAVKYF
FDFLEEQA EKRGISDPDTLHIWKTNSLPLRFVWNILKNPQVFVDIDKTDHIDACLSVIAQA FIDAC SISDLQLGK
DSPTNKLLYAKEIPEYRKIVQRYKQIQDMTPLSEQEMNAHLAEESRKYQNEFNTNVAMAEIYKYAKRYRPQIMA
ALEANPTARRTQLQHKFEQVVALMEDNIYECYSEA

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FIGURE 15A

CCCTTTTCTCCCGTTTTGAAGAGACAATGCTACTTCAGTTTGGAGCACAAACATATGATCAGCACATGGAAAT
GTGGTAATTCGGATGCATTCGTGATTGCAACAGATTGAAGAAATTAGACCAGACAAAGAGTGTTTTAGAGGAGA
GAGGAGGAGGAGGAGGCTGAGAGAGGGAGGGCGACGGGGTGAGAAAGGGGAGGCCGCTCTGAGCGGGACGCCG
GGACTCCCGCCGCTGCTAAATATATCCGTAGAAATGAGAGGGACCGGATCTCAGCCTTGAAAAGATCTTTTGAAG
TCGAGGAGGTCGAGACACCCAATCCACCCACCCCGAGGGTCCAGACTCCCCTACTCCGAGCCACTGTGGCCA
GCTCCACCCAGAAATTCAGGACCTGGGCGTGAAGAACTCAGAACCTCGGCCCGCCATGTGGACTCCCTAAGCC
AACGCTCCCCCAAGGCGTCCCTGCGGAGGGTGGAGCTCTCGGGCCCCAAGGCGGCCGAGCCGGTGTCCCGGCGCA
CTGAGCTGTCCATTGACATCTCGTCCAAGCAGGTGGAGAACGCCGGGGCCATCGGCCCGTCCCGGTTCCGGGCTCA
AGAGGGCCGAGGTGTTGGGCCACAAGACGCCAGAACCGGGCCCCCTCGGAGGACGGAGATCACCATCGTCAAACCCC
AGGAGTCAGCCCACCGGAGGATGGAGCCCCCTGCCTCCAAGGTCCCCGAGGTGCCCACTGCCCTGCCACCGACG
CAGCCCCCAAGAGGGTGGAGATCCAGATGCCCAAGCCTGCTGAGGCGCCACCGCCCCCAGCCCAGCCCAGACCT
TGGAGAATTCAGAGCCTGCCCTGTGTCTCAGCTGCAGAGCAGGCTGGAGCCCCAAGCCCCAGCCCCCTGTGGCTG
AGGCTACACCCCGGAGCCAGGAGGCCACTGAGGCGGCTCCCAGCTGCGTTGGCGACATGGCCGACACCCCCAGAG
ATGCCGGGCTCAAGCAGGCGCTGCATCACGGAACGAGAAGGCCCGGTGGACTTCGGCTACGTGGGGATTGACT
CCATCTTGAGCAGATGCGCCGAAGGCCATGAAGCAGGGCTTCGAGTTCAACATCATGGTGGTCCGGCAGAGCG
GCTTGGGTAAATCCACCTTAATCAACACCCTCTTCAAATCCAAATCAGCCGGAAGTCGGTGCAGCCCACCTCAG
AGGAGCGCATCCCCAAGACCATCGAGATCAAGTCCATCACGCACGATATTGAGGAGAAAGGCGTCCGGATGAAGC
TGACAGTGATTGACACACCAGGGTTCGGGGACCACATCAACAACGAGAACTGCTGGCAGCCCATCATGAAGTTCA
TCAATGACCAGTACGAGAAATACCTGCAGGAGGAGGTCAACATCAACCGCAAGAAGCGCATCCCGGACACCCGCG
TCCACTGCTGCCTCTACTTCATCCCCGCCACCGGCCACTCCCTCAGGCCCCCTGGACATCGAGTTTATGAAACGCC
TGAGCAAGGTGGTCAACATCGTCCCTGTCATCGCCAAGGCGGACACACTCACCTGGAGGAGAGGGTCCACTTCA
AACAGCGGATCACCGCAGACCTGCTGTCCAACGGCATCGACGTGTACCCCCAGAAGGAATTTGATGAGGACTCGG
AGGACCGGCTGGTGAACGAGAAGTTCGGGAGATGATCCATTTGCTGTGGTGGGCAGTGACCACGAGTACCAGG
TCAACGGCAAGAGGATCCTTGGGAGGAAGACCAAGTGGGGTACCATCGAAGTTGAAAACACCACACACTGTGAGT
TTGCCTACCTGCGGGACCTTCTCATCAGGACGCACATGCAGAACATCAAGGACATCACCAGCAGCATCCACTTCG
AGGCGTACCGTGTGAAGCGCCTCAACGAGGGCAGCAGCGCCATGGCCAACGGCGTGGAGGAGAAGGAGCCAGAAG
CCCCGGAGATGTAGACGCCCCCTGCCACCCCCGGGATCCTGCCCCCAAGTCATTTCCGTCCCCCCCCCAGGCC
TCCCACCACCCCATTTTATTTTATATGATTTTCTCCATTTGTTCATCGTTCCCCACCCCTTCGACATGCTGCCAGG
AAACAAGGGAAGGGGCTCCCTCCGAGTGAGTCAGTGATGAGGCCGCGGCTCCCCGAGGTTGTGGGGAGGCTGC
ACTGGAGCCACAGGCAGGGGTGAGAGCACCCACTGAATTGACATGACCTCTGTCCCCAGGCCTGGCTCCCCGAG
GGCTCAGAAGAGCAGCTTCGGTGTGCAGATCATCCGTCGTGTGGGGTTCTCAGTGCCGAGCTTGGGGTGGGGG
CAGGCCTCGCACTTGCAGAGGAGCCAGTGGGCTGCACGCTCCCCCTCCATCCCCATCGGCCCTGTCCCCTGGAGT
GTGTGAGAGCCAGGGGAGAATGCAGCCACCAGGAGCACCTGGACCCCCCTGCCCGCCACATGGTGTGGCCATCA
CTCAGCCCCCTACCCCTGCCCTGCTCCTAAGGGTAGAAAATCCAGGGTCCCCCTGCCACCGACTGCCAGCCACTC
CAAGCCCCCTGGCAGCTGCCCTCCTGGAGCAGAAAGTGCTTTATCTCAGCCATCCGCAGACTGCTGGCCAGAT
GCGGGGACAGGCTGGAATGAGGGAGGCGTCTTATCTCCCTGCCATCCCCCTCTACGCCACCCCCGCCCCACC
GGGCTGCAGGTGCTGCTGATGCGCTGGGATCTGATTGAGGATAAAAAGGAAGGAGAGATGACCCCTACCCCTCA
TCCCCCAGTTTGAAGGCTTAAGCAAGTGAGTCTGGTGGAGGAGCTGAGGGAGGGAGCCATGGAAGGTGCCAG
AAGGAAGGTTGGCGGGGGCACGTGTGGGCCGTGGCTTGGGCTGGTCAGAGTGGCGTGAGCTGCCCGGCGCCTGCC
CTGCCCAAGTGACCAGGGAAGTGTGTGTGTGTCATGTGTATGCGTGTCCGTCTGTCTGTCTAGTGTCTGGGTTT
GGCCCAAGACTGGGCTGTAGTTACATTAATGCCAGCCAGCCACCCCTGCCACTCACCCCTCCTGGCCAGGCCT
TGCTGACTCTCTGAGCTGGGGAGGTGGGAGGCCAGGCGAGCCTGACTCTGTTGATCTACCCGTGCCCTGGGCCCT
CCCCTCAGAGCCCATGGTAACGAACCCCTAGAAAAGGAGAGAACGGGCGTCAGGGGTGCACAGTCCACAGCTGAAG
AGCAAGGTTTCGTGGCAGCACGGCCCCGGCCCCCTCACCTCTGTCCCCACGAGGGGACCCATGGGGGCTGTCTTG
CAGGGCACAGATGACCAAAGTCCCTTCCCTGCTTCCCTGTTACCTGTCTTGGCTCCTGGGGAGAAAGAGGGGCTGAT
GAGACTCCACTCAGGTGCACACATCACCAGGTGCATCTGCAGGCACCGGGCTGGCTGCTTGCAGCCAGGAGAAGG
TCAGCGAGAAGGAGTGTATGAGTGTGAGTGTGTGTGCATGGAAGTTGGGGCACTGGGCGTCTGACTCCCTCCCCA
CCCAAGAGAGGAAGGACCCCTCACCACCCCACTGGCGAGACAGTTTACTTTGCCGACTTGCCATGTTTTTGCCA

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FIGURE 15B

AAACCAAGATTTTGAAGGAAATGAGTGGCCAGCGCCAGGGCCCAGGCCATGTGGCCTGCCCAGCCTCAATGTCAC
TTGGCGGCGGGGTGGGGTGGGGTGGGCAGCAGCATCCCAGCCTTGAGATGCTTCACTTTCCTTCTGTGAACCA
GACTTTGAAAAATTGTTTCGTTTCATCAGGCTCTGTTTCCTCAATGGCCTTTTGCTACGTGCCTCCCGAGAAATTTG
TCTTTTGTATAAATGACAAAGTGTTGAAAATGTATTTCTGAAATAAATGTTTCAAATGCAGAAACCCAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 16

MERDRISALKRSFEVEEETPNSTPPRRVQTPLLRA TVASSTQKFQDLGVKNSEPSARHVDSLSQRSPKASLRRV
ELSGPKAAEPVSRTELSIDISSKQVENAGAIGPSRFGLKRAEVLGHKTPEPAPRRTEITIVKPQESAHRRMEPP
ASKVPEVPTAPATDAAPKRVEIQMPKPAEAPTAPSPAQTLENSEPAPVSQLQSRLEPKPQPPVAEATPRSQEATE
AAPSCVGDMA DT PRDAGLKQAPASRNEKAPVDFGYVGIDSILEQMRRKAMKQGFENIMVVGQSGLGKSTLINTL
FKSKISRKSVQPTSEERIPKTIEIKSITHDIEEKGV RMKLTVIDTPGFGDHINNENCWQPI MKFINDQY EKYLQE
EVNINRKKRIPDTRVHCCLYFIPATGHSLRPLDIEFMKRLSKVVNIVPVI AKADTLTLEERVHFKQRITADLLSN
GIDVYPQKEFDEDS EDRLVNEKFREMIPFAVVGSDHEYQVNGKRILGRKTKWGTIEVENTHCEFAYLRD LLI RT
HMQNIKDITSSIHF EAYRVKRLNEGSSAMANGVEEKEPEAPEM

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FIGURE 17

CCGCTTCCCGTCTTGTACACCCCTAACTCCTGAGGCTCCTCCGAATCACGCGAGTGGAAGCGGAGAAGCTCAAG
TGGCCGCC**ATGT**CAGAGGCTTATTTCCGAGTGGAGTCGGGTGCGCTGGGGCCTGAGGAGAACTTTCTTTCTTTGG
ACGACATCCTGATGTCCCACGAGAAGCTGCCGGTGCACGAGACCGCCATGCCTCGCCTTGGCGCTTTCTTCC
TGGAGCGGAGCGCAGGCGCCGAGACTGACAACGCGGTCCACAGGGTTCCAAGCTTGAACCTACCCTTGTGGCTGG
CAAAAGGACTTTTTTGACAACAAGCGACGGATCCTTTCTGTGGAACCCCCAAGATCTACCAAGAGGGTTGGAGGA
CTGTGTTTCAGTGCAGATCCCAATGTGGTGGACCTCCACAAAATGGGGCCCCATTTCTACGGGTTTGGCTCCCAGC
TCCTGCATTTTACAGTCCCGAGAATGCAGACATTTCCAGTCTCTGCTGCAGACTTTTATCGGACGTTTTTCGCC
GCATCATGGACTCCTCACAGAATGCTTACAACGAAGACACTTCAGCCCTGGTAGCCAGGCTAGACGAGATGGAGA
GGGGCTTATTTCAAACAGGGCAGAAAGGACTGAATGACTTTCAGTGTTGGGAGAAGGGGCAGGCTTCTCAGATCA
CAGCTTCCAACCTCGTTCAGAATTACAAGAAGAGAAAATTCAGTGATATGGAAGAC**TGA**AAGCCGGAAGAACACA
GAATGGCTCCTCACAGACGTATCCCTCCGTGTGTCCTTGATAGGAGCTGGTTGACCTTGTACAGAACCAGAATCC
TGTCCCATTTTCATGGCTTATTTCCGTGTGGCCATAGAGAATTATAGGGAACCTGGACATGCTGGAGGATGTGGGTGT
CCCTGGCTCTGTGAGTCTTCCAGGACCGTCCCACCCTGCTGACCCACAGCCCAGGCCCTTTAACCCAAGAACCCA
TGGCCAAGGAGAAATCAAAGTCCTTCCTAAATAAGAATCACTGCCATATAATATATCACAGTAGAGTTGCAACTG
AGATTTCCTTGTGTCTGGGAGTTTGGACAGCTTCAGATGTACAGTTTCACTAGCCACAAAGCACAGGTACAAACTG
GGTCATCGCCTGTTTCAAAAATGCTCTCTTGATCTTATTTGCCTCATCTTCCTCATGGTTGTACAGAGGATAGCA
CCCCACCATGCCAGCCTGACTTGGAGATATCTCCTGCTGCCTGCCTGCAGGGAGTTACCCAGTTTCCAAAAACA
GTCGCCCAGATAAAGGAGGAAAAGGGAAAGGCAGACGAATGGCATGGCTTTTACTAAAGAAAAGATGTTGGCCTC
ATACTCTATACTCAGGGCTTAATGAACTGGAATCTGCATAACTCAGCAGTCAACCCAGAAGGGAAATGGTTAAAC
TGAGCTTGTTATTGCCTCGGAGAGCCTAAGAGCACCCGCACACTTAATTCTACTCCCTGTCTAGAAAAGCTGTCA
GGGAGTCGTTTGAATTGCAATGTAGTTATTAAGGGCTGTTAACCAGCCTGCATTACATCTGGAAGTCAGGACTT
GGGTGCTGACTATGAAGGGCCCTGTTTTCAAATCTAACATTGCAAGTGTAATGGGCAAGAAGCCTCCGTTGTG
CTTTTTTTTTCTCTTCAGTAACTTTTGCAACATTATTGCATAGAAGATCCCTGACCATTTACTAGGAACCTGGT
TAAGCAAGCACTAATCTCTTTTCCCTGGAGATCAAGGATGCAACCTCAGGTTGAGAAAGAAACAGGGTTCCCTGGG
CCCATTAGACTGTTTGCAGGGCATCACTGCTTCCCCCTGACACCTCACAACCTAGCAAAAATTGTCTTTGTCTTTG
GAAATTATAGAGGGATTGGGTATCCAGATTGTGCAGATGCAAACTTAGGCTGTCTTGATGCAAACTTAGAACCA
CAGAAATGCTTTTAAATGCCTGTTTTAAGATGGAATTGTTGTTTTTATAATTTGATTTTAGTGCTAAATAAATG
ATTGGCTTTGTACATGAATATGTTCTGTACAAGTGCTCTTTCACTAGTACTACAGATAATCAAAGCTATCAGAAT
TGTGTCTTTGATCATATTTGACGGTAATACACAAATAAATCCATGTTTTAGCAAAAAAAAAAAAAAAAAAAAAA
A

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FIGURE 18

MSEAYFRVESGALGPEENFLSLDDILMSHEKLPVRTETAMPRLGAFFLERSAGAETDNAVPOGSKLELPLWLAKG
LFDNKRRILSVELPKIYQEGWRTVFSADPNVVDLHKMGPHFYGFSQLLHFDSPENADISQSLLQTFIGRFRRIM
DSSQNAYNEDTSALVARLDEMERGLFQTGQKGLNDFQCWEKGQASQITASNLVQNYKKRKFTDMED

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FIGURE 19

GTTTACGTCTCGCTCCGGGGCGGAAAGTGGGTACAGGCCGGGCTGGCGGAGCGCGCAGCGGGGGCTGCAGATTCT
TTCCACCATGGCCAGACGCCCCCGGAACAGCAGGGCCTGGCACTTCGTCTGAGTGCAGCCCGCCGAGACGCAGA
TGCCCGGGCCGTGGCTCTAGCGAGGCCTCCTTCTGTAGCAGCCTGCACTCGGCCCCACCGGGGCAGGGACTGCCGC
TGCGGAGAGGAAGACGAGTGTGAGCGTGGGGCCAGCCCCTGTCTGGGACTGCACTGCGGGCGGGCCTGGGGGTGG
GCAGGGCAGAGCCCCATGGAGCTCTCAGGGCTGCCCCAGCCTGGGCCTCTCTTGCAGATTTGCACTGGGTCTGGG
ATGACTTAAATAAGTCATCAGCCACCCTGCTGAGCTGTGACAACCGTAAGGTCAGCTTCCACATGGAGTACAGCT
GCGGCACAGCGGCCATCCGGGGCACCAAGGAGCTGGGGGAGGGCCAGCACTTCTGGGAGATCAAGATGACCTCTC
CCGTCTACGGCACACTCACCTTTTTCAAGAACAGGAAGTGTATAGGTGTGGCAGCCACCAAGCTGCAGAACAAGA
GATTCTACCCGATGGTGTGCTCCACGGCGGGCCCGAGCAGCATGAAGGTCACCCGCTCCTGTGCCAGCGCCACTT
CCCTCCAGTACCTGTGCTGCCACCGCCTGCGCCAGCTGCGGCCAGACTCGGGAGACACGCTGGAGGGTCTGCCGC
TGCCGCCGGGCCTCAAGCAGGTGCTACACAACAAGCTGGGCTGGGTCTGAGCATGAGTTGCAGCCGCCGCAAGG
CTCCAGTGTCCGATCCCCAGGCAGCGACCTCCGCCCACCCCAGCAGTCGCGAGCCTCGGCCCTGCCAGAGGAAGC
GCTGCCGCCGGACCTTGACTGACTTCCCAGTGGAAGTGCCTTCTTGGGCTGGGGCAGCCCCCTTTCCTCTGTCCCTT
CTTTCTCTGTCCCTTCCTTCCAGCCACACTCCAGGGCGGAGTTGGATGAGGCCCCGTCCGGAGGGAGCCATCTCTT
GCTCCCGAGGCTGGGACAGTCCCTTCTGTGGGGGCTCTAGGGCCCCCTCTGCTGCTGTGCTGGGTGGGGAAGCGGC
TGCCCTGAGCCCCAGGTCTTGTGGGAGGCTGCGAGGACGAGAGCCTGGCTGGAGCCCGCTTGTCTTCTAGAT
GGTGGGCATCGGGACGTCGGATGTGGACCTGGACAAATACCGCCACACGTTCTGCAGCCTGCTGGGCAGGGATGA
GGACAGCTGGGGCCTCTCCTACACGGGTGCGTGAGGCCAGGGTGGGGCGGGGCCGAGCCTGGAGCTCCCGGGCT
CACTGCGACCCTGGCTGCCCCAGGCCTCCTCCACCACAAGGGCGACAAGACCAGCTTCTCGTCGCGGTTCTGGCC
AGGGCTCCATCATTGGCGTGACCTGGACACCTGGCACGGCACACTCACCTTTTTCTTAACCTTGCTCTGCATGCT
GTCAGCGGCTGCCCCGCCGTCATAGACTTAAAGGACTGCAATAAATGTAGAGTTGATGTCTAACCCC

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FIGURE 20

MEYSCGTAAIRGKELGEGQHFWEIKMTSPVYGTLTFFKNRKCIGVAATKLQNKRFYPMVCSTAARSSMKVTRSC
ASATSLQYLCCHRLRQLRPDSGDTLEGLPLPPGLKQVLHNKLGWVLSMSCSRRKAPVSDPQAATSAHPSSREPRP
CQRKRCRRT

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FIGURE 21

AGAAATCAACTGCTTAGCCGGGTGTTAGGAGGATCTGATGAGACTAGGATGTGAGTTGAAACTGCTGTGCCAGG
CACACCTGTGTGGGTCTCACTTGTGCCAGGCATACCTGCGTGGGTCTCACCTGTGTAGGTCTCACCTGTGCCAGG
TGTACCTGTGTGGGTCTTACCTGTGCAGGTCTCCTGATGCAGGTCTCACCTGTGCCGAGTGTACCTACCTGTGCG
GGTCTCACCTGTGTGAGCGTACGTGTAGGGGTCTCACCTGTGAACGTCTCACCTGTGCCAGGTGTATACCTGTG
TGGCTCTCACTTGTGTGGGTCTGGTATGTGACAAAGGCCTGGGAATTGGCAGCTGTCACTGTGCCAGGAGCAGACC
CTGAGCCAAGTTCCCTGTGCCTTAGGCTCATTTCATGCCCTCAGCTCTGGGAGGCCAATCCCTTTACTGCCACAT
TTTATAAATGGAAGACTGAGGTTAAGCAGTGGGCCCAGGGCCATAGAACAGCTGAGCTGTGGAGCTGGACATCGA
CCTTGGGCAGGTGCTGCCAGGGGCCTGAGCCCAGGCCCTCCACTCCCGCATCCTCTGATGACCCATCCTGGGTGA
GTGGAGGCATCTGCCCCGCGCCAGTCAGGCCCAGTGGTGATGGCCCCCATGCCCACAGGACAGAAGCTGCTGGACT
CACTGGCAGAGACCTGGGACTTCTTCTTCACTGACGTGCTGCCCATGCTGCAGGCCATCTTCTACCCGGTGCAGG
GCAAGGAGCCATCGGTGCGCCAGCTGGCCCTGCTGCACTTCCGGAATGCCATCACCCCTCAGTGTGAAGCTAGAGG
ATGCGCTGGCCCCGGGCCCCATGCCCCGCTGCCCCCTGCCATCGTGCAGATGCTGCTGGTGCTGCAGGGGGTACATG
AGTCCAGGGGCGTGACTGAGGACTACCTGCGCCTGGAGACGCTGGTCCAGAAGGTGGTGTCGCCATACCTGGGCA
CCTACGGCCTCCACTCCAGCGAGGGGCCCTTACCCATTCTGTCATCCTGGAAAAGCGCCTCCTCCGCGCTCCC
GCTCGGGGGACGTGCTGGCCAAGAACCCTGTGGTGCGCTCCAAGAGCTACAACACGCCTCTGCTGAACCCCGTGC
AGGAGCACGAGGCGGAGGGCGCGCGGCCGGCGGTACCAGCATCCGCTGGCACTCTGTGTGCGGAGATGACGTCTT
GCCCCGAGCCTCAGGGCTTCTCCGACCCGCGCCAGGGCCCCACCGGGACCTTCAGGTCTCCTCCGCGCGCCCC
ACTCAGGGCCCTGCCCCAGCAGACTGTACCCACGACCCAGCCCCCTGAGCAGGGCTTGGATCCACCCGCAGCT
CCCTGCCCCGCTCCAGCCCGGAGAACCCTGGTGGACCAGATCCTGGAGTCCGTGGACTCGGATTCTGAAGGGATTT
TCATTGACTTTGGCCGGGGCCGGGGCTCTGGCATGTCCGACTTGGAGGGCTCTGGGGGCCGCGCAGAGTGTCTGTG
GAGGCCTCACAGCTGGCCTTGAGTTTTTACTGACACGTCCCTGTGTGCGGGGGTGTCATGTGGCGTGTGTGTGA
GTGAGACTTTTTTACTGCGTCCCGTCCCGCCAGCCCTGTGCGCCTCGTCACTGGCCTTGGTCACTTTGTATTTCT
GTCTTGGTTGAAAATACCATCAGCCTTCCTTGCTCGGCCAGGTCTGTTTCAGGCATCTGAGTCAGCGTTTACCC
AGGGGCCGGGCCAGAGACGGGGGCCGGCGCTCGCTCCCACGCTCCTCCTGCCCCAGCCCTCTGGTGTCCACACC
TGCCACAGAGAATGTAAACCCAGTGGGCTCTGCCCACGCGGGCCCCAAAGTGACCAGACTCCAGCACACCTGT
CTCCTCCTGCCTGGGGTGGCCATGGGGATGGAAGGGGGTGAATAAAACCTGTCAACCTGAAAAAAAAAAAAAA
AAAAAA

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FIGURE 22

MAPMPTGQKLLDSLAE TW DFF FSDVLPMLQAIFYPVQGKEPSVRQLALLHFRNAITLSVKLEDALARAHARVPPA
IVQMLLV LQGVHESRGVTEDYLRLET LVQKVVS PYLGT YGLHSSEGPFTHSCILEKRLLR SRSGDVLAKNPVVR
SKSYNTPLLNPVQEHEAEGAAAGGTSIRWHSVSEMTSCPEPQGFSDPPGQGPTGTFRSSPAPHSGPCPSRLYPTT
QPPEQGLDPTRSSLPRSSPENLVDQILESVDSDSEGIFIDFGRGRGSGMSDLEGS GGRQSVV

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FIGURE 23

GTTGCCGCTGCGCACCTGGCTCAGGTGAGCTGCCCCGCCCCCGCCGGCGCGAGCCCCAGGTCTTGGCAGCAGCC
 CCTGACCTGTCCAGGTGCCCTGTCCAGCTGACTGCAAGGACAGAGAGGAGTCTTGCCAGCTCTTGGATCAGTCT
 GCTGGCCGAGGAGCCCCGGTGGAGCCAGGGGTGACCCTGGAGCCCAGCCTGCCCCGAGGAGGCCCGGCTCAGAGC
 C**ATG**CCAGGTGTCTGTGATAGGGCCCCCTGACTTCCTCTCCCCGTCTGAAGACCAGGTGCTGAGGCCTGCCTTGGG
 CAGCTCAGTGGCTCTGAACTGCACGGCTTGGGTAGTCTCTGGGCCCCACTGCTCCCTGCCTTCAGTCCAGTGGCT
 GAAAGACGGGCTTCCATTGGGAATTGGGGGCCACTACAGCCTCCACGAGTACTCCTGGGTCAAGGCCAACCTGTC
 AGAGGTGCTTGTGTCCAGTGTCTGGGGGTCAACGTGACCAGCACTGAAGTCTATGGGGCCTTCACCTGCTCCAT
 CCAGAACATCAGCTTCTCCTCCTTCACTCTTCAGAGAGCTGGCCCTACAAGCCACGTGGCTGCGGTGCTGGCCTC
 CCTCCTGGTCTGCTGGCCCTGCTGCTGGCCGCCCTGCTCTATGTCAAGTGCCGTCTCAACGTGCTGCTCTGGTA
 CCAGGACGCGTATGGGGAGGTGGAGATAAACGACGGGAAGCTCTACGACGCCTACGTCTCCTACAGCGACTGCCC
 CGAGGACCGCAAGTTTCGTGAACCTTATCCTAAAGCCGCGAGCTGGAGCGGCGTCGGGGCTACAAGCTCTTCCTGGA
 CGACCGCGACCTCCTGCCGCGCGCTGAGCCCTCCGCCGACCTCTTGGTGAACCTGAGCCGCTGCCGACGCCTCAT
 CGTGGTGCTTTTCGGACGCCTTCCTGAGCCGGGCCTGGTGCAGCCACAGCTTCCGGGAGGGCCTGTGCCGGCTGCT
 GGAGCTCACCCGCGAGACCATCTTCATCACCTTCGAGGGCCAGAGGCGCGACCCCGCGCACCCGGCGCTCCGCCT
 GCTGCGCCAGCACCGCCACCTGGTGACCTTGCTGCTCTGGAGGCCCGGCTCCGTGACTCCTTCCTCCGATTTTGT
 GAAAGAAGTGCAGCTGGCGCTGCCGCGGAAGGTGCGGTACAGGCCGGTGGAAGGAGACCCCGAGACGCAGCTGCA
 GGACGACAAGGACCCCATGCTGATTCTTCGAGGCCGAGTCCCTGAGGGCCGGGCCCTGGACTCAGAGGTGGACCC
 GGACCTGAGGGCGACCTGGGTGTCCGGGGGCCTGTTTTTGGAGAGCCATCAGCTCCACCGCACACCACTGGGGT
 CTCGCTGGGAGAGAGCCGGAGCAGCGAAGTGGACGTCTCGGATCTCGGCTCGCGAACTACAGTGCCCGCACAGA
 CTTCTACTGCCTGGTGTCCAAGGATGATATG**TAG**CTCCCACCCAGAGTGCAGGATCATAGGGACAGCGGGGGCC
 AGGGCAGCGGCGTGCCTCCTCTGCTCAACAGGACCACAACCCCTGCCAGCAGCCCTGGGACCCTGCCAGCAGCCC
 TGGGAAAAGGCTGTGGCCTCAGGGCGCCTCCAGTGCCAGAAAATAAAGTCCTTTTGGATTCTGAAAAAAAAA
 AA

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FIGURE 24

MPGVCDRAPDFLSPSEDQVLRPALGSSVALNCTAWVVS GPHCSLP SVQWLKDGLPLGIGGHYSLHEYSWVKANLS
EVLVSSVLGVNVTSTEYGAFTCSIQNISFSSFTLQ RAGPTSHVA AVLASLLVLLALLLAALLYVKRLNVLLWY
QDAYGEVEINDGKLYDAYVSYSDCPEDRK FVNFI LKPQLERRRGYKLF LDDRDLLPRAEPSADLLVNLSRCRLI
VVLSDAFLSRAWCSHSFREGLCRLLELTRRPIF ITFEGQRRDPAHPALRLLRQHRHLV TLLLWRPGSVTPSSDFW
KEVQLALPRKVRYRPVEGDPQTQLQDDKDPMLI LRGRVPEGRALDSEVDPDPEGDLGVRGPVFGEPSAPPHTSGV
SLGESRSSEVDVSDLGSRNYSARTDFYCLVSKDDM

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FIGURE 25

GGCACGAGGGGAGCGCTTGTTTGCTGCCTCGTACTCCTCCATTTATCCGCCATGATAAGTGCCAGCCGAGCTGCA
GCAGCCCGTCTCGTGGGCGCCGAGCCTCCCGGGGGCCCTACGGCCGCCGCCACCAGGATAGCTGGAATGGCCTT
AGTCATGAGGCTTTTAGACTTGTTTCAAGGCGGGATTATGCATCAGAAGCAATCAAGGGAGCAGTTGTTGGTATT
GATTTGGGTACTACCAACTCCTGCGTGCGCAGTTATGGAAGGTAAACGAGCAAAGGTGCTGGAGAATGCCGAAGGT
GCCAGAACCACCCCTTCAGTTGTGGCCTTTACAGCAGATGGTGAGCGACTTGTTGGAATGCCGGCCAAGCGACAG
GCTGTACCAACCCAAACAATACATTTTATGCTACCAAGCGTCTCATTGGCCGGCGATATGATGATCCTGAAGTA
CAGAAAGACATTAAAAATGTTCCCTTTAAAATTGTCCGTGCCTCCAATGGTGATGCCTGGGTTGAGGCTCATGGG
AAATTGTATTCTCCGAGTCAGATTGGAGCATTGTGTGATGAAGATGAAAGAGACTGCAGAAAATTACTTGGGG
CGCACAGCAAAAAATGCTGTGATCACAGTCCCAGCTTATTTCAATGACTCGCAGAGACAGGCCACTAAAGATGCT
GGCCAGATATCTGGACTGAATGTGCTTCGGGTGATTAATGAGCCCACAGCTGCTGCTCTTGCCATGGTCTAGAC
AAATCAGAAGACAAAGTCATTGCTGTATATGATTTAGGTGGTGAACTTTTGATATTTCTATCCTGGAAATTCAG
AAAGGAGTATTTGAGGTGAAATCCACAAATGGGGATACCTTCTTAGGTGGGGAAGACTTTGACCAGGCCTTGCTA
CGGCACATTGTGAAGGAGTTCAGAGAGAGACAGGGGTTGATTTGACTAAAGACAACATGGCACTTCAGAGGGTA
CGGGAAGCTGCTGAAAAGGCTAAGTGTGAAGTCTCCTCATCTGTGCAGACTGACATCAATTTGCCCTATCTTACA
ATGGATTCTTCTGGACCCAAGCATTGAATATGAAGTTGACCCGTGCTCAATTTGAAGGGATTGTCACTGATCTA
ATCAGAAGGACTATCGCTCCATGCCAAAAGCTATGCAAGATGCAGAAGTCAGCAAGAGTGACATAGGAGAAGTG
ATTCTTGTGGGTGGCATGACTAGGATGCCCAAGTTTACGAGACTGTACAGGATCTTTTGGCAGAGCCCCAAGT
AAAGCTGTCAATCCTGATGAGGCTGTGGCCATTGGAGCTGCCATTGAGGGAGGTGTGTTGGCCGGCGATGTCACG
GATGTGCTGCTCCTTGATGTCACTCCCCTGTCTCTGGGTATTGAACTCTAGGAGGTGTCTTTACCAAACCTTATT
AATAGGAATACCACTATTCCAACCAAGAAGAGCCAGGTATTCTCTACTGCCGCTGATGGTCAAACGCAAGTGAA
ATTAAAGTGTGTGAGGGTGAAAGAGAGATGGCTGGAGACAACAACTCCTTGACAGTTTACTTTGATTGGAATT
CCACCAGCCCCTCGTGAGTTTCTCAGATTGAAGTTACATTTGACATTGATGCCAATGGGATAGTACATGTTTCT
GCTAAAGATAAAGGCACAGGACGTGAGCAGCAGATTGTAATCCAGTCTTCTGGTGGAATTAAGCAAAGATGATATT
GAAAATATGGTTAAAAATGCAGAGAAATATGCTGAAGAAGACCGGCGAAAGAAGGAACGAGTTGAAGCAGTTAAT
ATGGCTGAAGGAATCATTACGACACAGAAACCAAGATGGAAGAATTCAAGGACCAATTACCTGCTGATGAGTGC
AACAAGCTGAAAGAAGAGATTTCCAAAATGAGGGAGCTCCTGGCTAGAAAAGACAGCGAAAACAGGAGAAAATATT
AGACAGGCAGCATCCTCTCTTCAGCAGGCATCATTGAAGCTGTTTCGAAATGGCATACAAAAAGATGGCATCTGAG
CGAGAAGGCTCTGGAAGTTCTGGCACTGGGGAACAAAAGGAAGATCAAAAGGAGGAAAAACAGTAAATAATAGCAG
AAATTTTGAAGCCAGAAGGACAACATATGAAGCTTAGGAGTGAAGAGACTTCTGAGCAGAAATGGGCGAACTTC
AGTCTTTTTACTGTGTTTTTGCAGTATTCTATATATAATTTCTTAATTTGTAAATTTAGTGACCATTAGCTAGT
GATCATTTAATGGACAGTGATTCTAACAGTATAAAGTTTACAATATTCTATGTCCCTAGCCTGTCAATTTTTTCAGC
TGCATGTAAAAGGAGGTAGGATGAATTGATCATTATAAAGATTTAACTATTTTATGCTGAAGTGACCATATTTTC
AAGGGGTGAAACCATCTCGCACACAGCAATGAAGGTAGTCATCCATAGACTTGAAATGAGACCACATATGGGGAT
GAGATCCTTCTAGTTAGCCTAGTACTGCTGTACTGGCCTGTATGTACATGGGGTCCTTCAACTGAGGCCCTTGCAA
GTCAAGCTGGCTGTGCCATGTTTGTAGATGGGGCAGAGGAATCTAGAACAATGGGAACTTAGCTATTTATATTA
GGTACAGCTATTAAACAAGGTAGGAATGAGGCTAGACCTTTAACTTCCCTAAGGCATACTTTTCTAGCTACCTT
CTGCCCTGTGTCTGGCACCTACATCCTTGATGATTGTCTCTTACCCATTCTGGAATTTTTTTTTTTTTTAAATA
AATACAGAAAGCATCTTGAAAAAAAAAAAAAAAAAAAA

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FIGURE 26

MISASRAAAARLVGAAASRGPTAARHQDSWNGLSHEAFRLVSRRDYASEAIKGAVVGIDLGTTNSCVAVMEGKRA
KVLENAEGARTTPSVVAFTADGERLVGMMPAKRQAVTNPNNTFYATKRLIGRRYDDPEVQKDIKNVPFKIVRASNG
DAWVEAHGKLYSPSQIGAFVLMKMKETAENYLGRTAKNAVITVPAYFNDSQRQATKDAGQISGLNVLRVINEPTA
AALAYGLDKSEDKVI AVYDLGGGTFDISILEIQKGVFEVKSTNGDTFLGGEDFDQALLRHIVKEFKRETGVDLTK
DNMALQRVREAAEKAKCELSSSVQTDINLPYLTMDSSGPKHLNMKLTRAQFEGIVTDLIRRTIAPCQKAMQDAEV
SKSDIGEVILVGGMTRMPKVQQTVQDLFGRAPSKAVNPDEAVAIGAAIQGGVLAGDVTDVLLLDVTPLSLGIETL
GGVFTKLINRNTTIPTKKSQVFSTAADGQTQVEIKVCQGEREMAGDNKLLGQFTLIGIPPAPRGVPQIEVTFDID
ANGIVHVSADKGTGREQQIVIQSSGGLSKDDIENMVKNAEKYAEEDRRKKERVEAVNMAEGIIHDTETKMEEFK
DQLPADECNKLKEEISKMRELLARKDSETGENIRQAASSLQQASLKL FEMAYKKMASEREGSGSGSGTGEQKEDQK
EEKQ

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FIGURE 27

GGCACGAGGGGAGCGCTTGTTTGCTGCCTCGTACTCCTCCATTTATCCGCC**ATG**AATAAGTGCCAGCCGAGCTGCA
GCAGCCCGTCTCGTGGGCGCCGAGCCTCCCGGGGGCCCTACGGCCGCCCGCCACCAGGATAGCTGGAATGGCCTT
AGTCATGAGGCTTTTAGACTTGTTTCAAGGCGGGATTATGCATCAGAAGCAATCAAGGGAGCAGTTGTTGGTATT
GATTTGGGTACTACCAACTCCTGCGTGGCAGTTATGGAAGGTAAACGAGCAAAGGTGCTGGAGAATGCCGAAGGT
GCCAGAACCACCCCTTCAGTTGTGGCCTTTACAGCAGATGGTGAGCGACTTGTTGGAATGCCGGCCAAGCGACAG
GCTGTCACCAACCCAAACAATACATTTTATGCTACCAAGCGTCTCATTGGCCGGCGATATGATGATCCTGAAGTA
CAGAAAGACATTAAAAATGTTCCCTTTAAAATTGTCCGTGCCTCCAATGGTGATGCCTGGGTTGAGGCTCATGGG
AAATTGTATTCTCCGAGTCAGATTGGAGCATTGTGTGATGAAGATGAAAGAGACTGCAGAAAATTACTTGGGG
CGCACAGCAAAAAATGCTGTGATCACAGTCCCAGCTTATTTCAATGACTCGCAGAGACAGGCCACTAAAGATGCT
GGCCAGATATCTGGACTGAATGTGCTTCGGGTGATTAATGAGCCACAGCTGCTGCTCTTGCCATGGTCTAGAC
AAATCAGAAGACAAAGTCATTGCTGTATATGATTTAGGTGGTGGAACCTTTGATATTTCTATCCTGGAAATTCAG
AAAGGAGTATTTGAGGTGAAATCCACAAATGGGGATACCTTCTTAGGTGGGGAAGACTTTGACCAGGCCTTGCTA
CGGCACATTGTGAAGGAGTTCAAGAGAGAGACAGGGGTGATTTGACTAAAGACAACATGGCACTTCAGAGGGTA
CGGGAAGCTGCTGAAAAGGCTAAGTGTGAACCTCTCCTCATCTGTGCAGACTGACATCAATTTGCCCTATCTTACA
ATGGATTCTTCTGGACCCAAGCATTGAATATGAAGTTGACCCGTGCTCAATTTGAAGGGATTGTCACTGATCTA
ATCAGAAGGACTATCGCTCCATGCCAAAAAGCTATGCAAGATGCAGAAGTCAGCAAGAGTGACATAGGAGAAGTG
ATTCTTGTGGGTGGCATGACTAGGATGCCAAGGTTGAGCAGACTGTACAGGATCTTTTGGCAGAGCCCCAAGT
AAAGCTGTCAATCCTGATGAGGCTGTGGCCATTGGAGCTGCCATTGAGGAGGTGTGTTGGCCGGCGATGTCACG
GATGTGCTGCTCCTTGATGTCACTCCCCTGTCTCTGGGTATTGAACTCTAGGAGGTGTCTTTACCAAACCTTATT
AATAGGAATACCACTATTCCAACCAAGAAGAGCCAGGTATTCTCTACTGCCGCTGATGGTCAAACGCAAGTGGA
ATTAAAGTGTGTGAGGGTGAAAGAGAGATGGCTGGAGACAACAACTCCTTGACAGTTTACTTTGATTGGAATT
CCACCAGCCCCTCGTGGAGTTCCTCAGATTGAAGTTACATTTGACATTGATGCCAATGGGATAGTACATGTTTCT
GCTAAAGATAAAGGCACAGGACGTGAGCAGCAGATTGTAATCCAGTCTTCTGGTGGATTAAGCAAAGATGATATT
GAAAATATGGTTAAAAATGCAGAGAAATATGCTGAAGAAGACCGGCGAAAGAAGGAACGAGTTGAAGCAGTTAAT
ATGGCTGAAGGAATCATTACGACACAGAAACCAAGATGGAAGAATTCAAGGACCAATTACCTGCTGATGAGTGC
AACAAGCTGAAAGAAGAGATTTCCAAAATGAGGGAGCTCCTGGCTAGAAAAGACAGCGAAAACAGGAGAAAATATT
AGACAGGCAGCATCCTCTCTTCAGCAGGCATCATTGAAGCTGTTTCGAAATGGCATACAAAAAGATGGCATCTGAG
CGAGAAGGCTCTGGAAGTTCTGGCACTGGGGAACAAAAGGAAGATCAAAAGGAGGAAAAACAG**TAA**TAAATAGCAG
AAATTTTGAAGCCAGAAGGACAACATATGAAGCTTAGGAGTGAAGAGACTTCCTGAGCAGAAATGGGCGAACTTC
AGTCTTTTTACTGTGTTTTTGCAGTATTCTATATATAATTTCTTAATTTGTAAATTTAGTGACCATTAGCTAGT
GATCATTTAATGGACAGTGATTCTAACAGTATAAAGTTTACAATATTCTATGTCCCTAGCCTGTCATTTTTTCAGC
TGCATGTAAAAGGAGGTAGGATGAATTGATCATTATAAAGATTTAACTATTTTATGCTGAAGTGACCATATTTTC
AAGGGGTGAAACCATCTCGCACACAGCAATGAAGGTAGTCATCCATAGACTTGAAATGAGACCACATATGGGGAT
GAGATCCTTCTAGTTAGCCTAGTACTGCTGTACTGGCCTGTATGTACATGGGGTCCTTCAACTGAGGCCTTGCAA
GTCAAGCTGGCTGTGCCATGTTGTAGATGGGGCAGAGGAATCTAGAACAATGGGAACTTAGCTATTTATATTA
GGTACAGCTATTA AAAACAAGGTAGGAATGAGGCTAGACCTTTAACTTCCCTAAGGCATACTTTCTAGCTACCTT
CTGCCCTGTGTCTGGCACCTACATCCTTGATGATTGTTCTCTTACCCATTCTGGAATTTTTTTTTTTTTTAAATA
AATACAGAAAGCATCTTGAAAAAAAAAAAAAAAAAAAA

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FIGURE 28

MISASRAAAARLVGAAASRGPTAARHQDSWNGLSHEAFRLVSRDYASEAIKGAVVGIDLGTTNSCVAVMEGKRA
KVLENAEGARTTPSVVAFTADGERLVGMPAKRQAVTNPNNTFYATKRLIGRRYDDPEVQKDIKNVPFKIVRASNG
DAWVEAHGKLYSPSQIGAFVLMKMKETAENYLGRTAKNAVITVPAYFNDSQRQATKDAGQISGLNVLRVINEPTA
AALAYGLDKSEDKVIAVYDLGGGTFDISILEIQKGVFEVKSTNGDTFLGGEDFDQALLRHIVKEFKRETGVDLTK
DNMALQRVREAAEKAKCELSSSVQTDINLPYLTMDSSGPKHLNMKLTRAQFEGIVTDLIRRTIAPCQKAMQDAEV
SKSDIGEVILVGGMTRMPKVQQTVDLFGRAPSKAVNPDEAVAIGAAIQGGVLAGDVTDLVLLDVTPLSLGIETL
GGVFTKLINRNTTIPTKKSQVFSTAADGQTQVEIKVCQGEREMAGDNKLLGQFTLIGIPPAPRGVPQIEVTFDID
ANGIVHVSADKGTGREQQIVIQSSGGLSKDDIENMVKNAEKYAEEDRRKKERVEAVNMAEGIIHDTETKMEEFK
DQLPADECNKLKEEISKMRELLARKDSETGENIRQAASSLQQASLKLFE MAYKKMASEREGSGSSGTGEQKEDQK
EEKQ

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FIGURE 29

GCCGTGTCGCCACCATGGCTCCGCACCGCCCCGCGCCCGCGCTGCTTTGCGCGCTGTCCCTGGCGCTGTGCGCGC
TGTCGCTGCCCCGTCCGCGCGGCCACTGCGTCGCGGGGGGCGTCCCAGGCGGGGGCGCCCCAGGGGCGGGTGCCCCG
AGGCGCGGGCCCAACAGCATGGTGGTGGAAACCCCCGAGTTCTCAAGGCAGGGAAGGAGCCTGGCCTGCAGATCT
GGCGTGTTGAGAAGTTCGATCTGGTGCCCGTGCCACCAACCTTTATGGAGACTTCTTCACGGGCGACGCCTACG
TCATCCTGAAGACAGTGCAGCTGAGGAACGGAAATCTGCAGTATGACCTCCACTACTGGCTGGGCAATGAGTGCA
GCCAGGATGAGAGCGGGGCGGCCGCCATCTTTACCGTGCAGCTGGATGACTACCTGAACGGCCGGGCGCTGCAGC
ACCGTGAGGTCCAGGGCTTCGAGTCGGCCACCTTCCTAGGCTACTTCAAGTCTGGCCTGAAGTACAAGAAAGGAG
GTGTGGCATCAGGATTCAAGCACGTGGTACCCAACGAGGTGGTGGTGCAGAGACTCTTCAGGTCAAAGGGCGGC
GTGTGGTCCGTGCCACCGAGGTACCTGTGTCTGGGAGAGCTTCAACAATGGCGACTGCTTCATCCTGGACCTGG
GCAACAACATCCACCAAGTGGTGTGGTTCACAACAGCAATCGGTATGAAAGACTGAAGGCCACACAGGTGTCCAAGG
GCATCCGGGACAACGAGCGGAGTGGCCGGGCCCCGAGTGCACGTGTCTGAGGAGGGCACTGAGCCCCGAGGCGATGC
TCCAGGTGCTGGGCCCCAAGCCGGCTCTGCCTGCAGGTACCGAGGACACCGCCAAGGAGGATGCGGCCAACCGCA
AGCTGGCCAAGCTCTACAAGGTCTCCAATGGTGCAGGGACCATGTCCGTCTCCCTCGTGGCTGATGAGAACCCTT
TCGCCCAGGGGGCCCTGAAGTCAGAGGACTGCTTCATCCTGGACCACGGCAAAGATGGGAAAATCTTTGTCTGGA
AAGGCAAGCAGGCAAACACGGAGGAGAGGAAGGCTGCCCTCAAAACAGCCTCTGACTTCATCACCAAGATGGACT
ACCCCAAGCAGACTCAGGTCTCGTCTCTTCTGAGGGCGGTGAGACCCCACTGTTCAAGCAGTTCTTCAAGAACT
GGCGGGACCCAGACCAGACAGATGGCCTGGGCTTGTCTACCTTTCCAGCCATATCGCCAACGTGGAGCGGGTGC
CCTTCGACGCCGCCACCTGCACACCTCCACTGCCATGGCCGCCAGCACGGCATGGATGACGATGGCACAGGCC
AGAAACAGATCTGGAGAATCGAAGGTTCCAACAAGGTGCCCGTGGACCCTGCCACATATGGACAGTTCTATGGAG
GCGACAGCTACATCATTTCTGTACAACCTACCGCCATGGTGGCCGCCAGGGGCAGATAATCTATAACTGGCAGGGTG
CCCAGTCTACCCAGGATGAGGTGCTGCATCTGCCATCCTGACTGCTCAGCTGGATGAGGAGCTGGGAGGTACCC
CTGTCCAGAGCCGTGTGGTCCAAGGCAAGGAGCCCGCCACCTCATGAGCCTGTTTGGTGGGAAGCCCATGATCA
TCTACAAGGGCGGCACCTCCCGCGAGGGCGGGCAGACAGCCCTGCCAGCACCCGCCCTCTTCAGGTCCGCGCCA
ACAGCGCTGGAGCCACCCGGGCTGTTGAGGTATTGCCTAAGGCTGGTGCCTGAACCTCAACGATGCCTTTGTTC
TGAAAACCCCCCTCAGCCGCCCTACCTGTGGGTGGGTACAGGAGCCAGCGAGGCAGAGAAGACGGGGGCCAGGAGC
TGCTCAGGGTGCTGCGGGCCCAACCTGTGCAGGTGGCAGAAGGCAGCGAGCCAGATGGCTTCTGGGAGGCCCTGG
GCGGGAAGGCTGCCTACCGCACATCCCCACGGCTGAAGGACAAGAAGATGGATGCCCATCCTCCTCGCCTCTTTG
CCTGCTCCAACAAGATTGGACGTTTTGTGATCGAAGAGGTTCTTGGTGGCTCATGCAGGAAGACCTGGCAACGG
ATGACGTGATGCTTCTGGACACCTGGGACCAGGTCTTTGTCTGGGTTGGAAAGGATTCTCAAGAAGAAGAAAAGA
CAGAAGCCTTGACTTCTGCTAAGCGGTACATCGAGACGGACCCAGCCAATCGGGATCGGCGGACGCCCATCACCG
TGGTGAAGCAAGGCTTTGAGCCTCCCTCCTTTGTGGGCTGGTTCTTGGCTGGGATGATGATTACTGGTCTGTGG
ACCCCTTGGACAGGGCCATGGCTGAGCTGGCTGCCTGAGGAGGGGCAGGGCCCCACCCATGTCACCGGTCAGTGCC
TTTTGGAAGTGTCTTCCCTCAAAGAGGCCTTAGAGCGAGCAGAGCAGCTCTGCTATGAGTGTGTGTGTGTGT
GTGTTGTTTCTTTTTTTTTTTTTTACAGTATCAAAAATAGCCCTGCAAAAATTCAGAGTCCTTGCAAAATTGTC
TAAAATGTCAGTGTGTTGGGAAATTAAATCCAATAAAAACATTTGAAGTGTG

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FIGURE 30

MAPHRPAPALLCALSLALCALSLPVRAATASRGASQAGAPQGRVPEARPNMVEHPEFLKAGKEPGLQIWRVEK
FDLVPVPTNLYGDDFTGDAYVILKTVQLRNGNLQYDLHYWLGNECSQDESGAAAIFTVQLDDYLNGRAVQHREVQ
GFESATFLGYFKSGLKYKKGGVASGFKHVVPNEVVQRLFQVKGRRVVRATEVPVSWESFNNGDCFILDLGNNIH
QWCGSNSNRYERLKATQVSKGIRDNERSGRARVHVSEEGTEPEAMLQVLGPKPALPAGTEDTAKEDAANRKLAKL
YKVSNGAGTMSVSLVADENPFAQGALKSEDCFILDHGKDGKIFVWKGKQANTEERKAALKTASDFITKMDYPKQT
QVSVLPEGGETPLFKQFFKNWRDPDQTDGLGLSYLSSHIANVERVPFDAATLHTSTAMAAQHGMDDDG TGQKQIW
RIEGSNKVPVDPATYGQFYGGDSYIILYNRYRHGGRQGQIIYNWQGAQSTQDEVAASAILTAQLDEELGGTPVQSR
VVQGKEPAHLMSLFGGKPMIYKGGTSREGGQTAPASTRLFQVRANSAGATRAVEVLPKAGALNSNDAFVLKTPS
AAYLWVG TGASEAEKTGAQELLRLVLAQPVQVAEGSEPDGFWEALGGKAA YRTSPRLKDKKMDAHPRLFACSNK
IGRFVIEEVPGELMQEDLATDDVMLLDTWDQVFVWVGKDSQEEEEKTEALTS AKRYIETDPANRDRRTPITVVKQG
FEPPSFVGWFLGWDDDYWSVDPLDRAMAELAA

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FIGURE 31

CGCCCCTGCTCTCGCGCCGGCGTCGGCTGCGTCTCCGGCGTTTGAATTGCGCTTCCGCCATCTTTCCAGCCTCAG
TCGGACGGGCGCGGAGGCGCTTCTGGAAGGAACGCCGCG**ATG**GCTGCGCAGGGAGAGCCCCAGGTCCAGTTCAAA
CTTGTAATTGGTTGGTGATGGTGGTACTGGAAAAACGACCTTCGTGAAACGTCATTTGACTGGTGAATTTGAGAAG
AAGTATGTAGCCACCTTGGGTGTTGAGGTTTCATCCCCTAGTGTTCCACACCAACAGAGGACCTATTAAGTTCAAT
GTATGGGACACAGCCGGCCAGGAGAAATTCGGTGGACTGAGAGATGGCTATTATATCCAAGCCCAGTGTGCCATC
ATAATGTTTGATGTAAACATCGAGAGTTACTTACAAGAATGTGCCTAACTGGCATAGAGATCTGGTACGAGTGTGT
GAAAACATCCCCATTGTGTTGTGTGGCAACAAAGTGGATATTAAGGACAGGAAAGTGAAGGCGAAATCCATTGTC
TTCCACCGAAAGAAGAATCTTCAGTACTACGACATTTCTGCCAAAAGTAACTACAACTTTGAAAAGCCCTTCCTC
TGGCTTGCTAGGAAGCTCATTGGAGACCCTAACTTGGAATTTGTTGCCATGCCTGCTCTCGCCCCACCAGAAGTT
GTCATGGACCCAGCTTTGGCAGCACAGTATGAGCACGACTTAGAGGTTGCTCAGACAACTGCTCTCCCGGATGAG
GATGATGACCTG**TGAGA**ATGAAGCTGGAGCCCAGCGTCAGAAGTCTAGTTTTATAGGCAGCTGTCCTGTGATGTC
AGCGGTGCAGCGTGTGTGCCACCTCATTATTATCTAGCTAAGCGGAACATGTGCTTTATCTGTGGGATGCTGAAG
GAGATGAGTGGGCTTCGGAGTGAATGTGGCAGTTTAAAAAATAACTTCATTGTTTGGACCTGCATATTTAGCTGT
TTGGACGCAGTTGATTCCCTTGAGTTTCATATATAAGACTGCTGCAGTCACATCACAATATTCAGTGGTGAAATCT
TGTTTGTTACTGTCATTCCCATTCCTTTTCTTTAGAATCAGAATAAAGTTGTATTTCAAATATCTAAGCAAGTGA
ACTCATCCCTTGTTTATAAATAGCATTGTGGAAACCACTAAAGTAGGGAAGTTTATGCCATGTTAATATTTGAAT
TGCCTTGCTTTTATCACTTAATTTGAAATCTATTGGGTAAATTTCTCCCTATGTTTATTTTGTACATTTGAGCC
ATGTCACACAACTGATGATGACAGGTCAGCAGTATTCTATTTGGTTAGAAGGGTTACATGGTGTAAATATTAGT
GCAGTTAAGCTAAAGCAGTGTTTGCTCCACCTTCATATTGGCTAGGTAGGGTCACCTAGGGAAGCACTTGCTCAA
AATCTGTGACCTGTCAGAATAAAAAATGTGGTTTGTACATATCAAATAGATATTTTAAGGGTAATATTTCTTTTA
TGGCAAAAGTAATCATGTTTTAATGTAGAACCTCAAACAGGATGGAACATCAGTGGATGGCAGGAGGTTGGGAAT
TCTTGCTGTATAAAAAATAATTACAAATTTTGCACTTTTTGTTTGAATGTTAGATGCTTAGTGTGAAGTTGATACGC
AAGCCG

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FIGURE 32

MAAQGE PQVQFKLVLVGDGGTGKTTFVKRHLTGEFEKKYVATLGVEVHPLVFHTNRGPIKFNVWDTAGQEKFGGL
RDGYYIQAQCAIIMFDVTSRVTYKNVPNWHRDLVRVCENIPVLCGNKVDIKDRKVKAKSIVFHRKKNLQYYDIS
AKSNYNFEKPFLWLARKLIGDPNLEFVAMPALAPPEVVM DPALAAQYEHDLVAQT TALPDEDDDL

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FIGURE 33

GGCACGAGGCGCCCGCTGCTACGAGTAGAACGCTGTCCGCAGCTTGCGCATTTTCGCAGCCGCTGCCGCTCGCC
GCTGCTCCTTCGTAAGGCCACTTCCGCACACCGACACCAACATGAACGGACAGCTCAACGGCTTCCACGAGGCGT
TCATCGAGGAGGGCACATTCTTTTACCTCAGAGTCGGTCGGGGAAGGCCACCCAGATAAGATTTGTGACCAAA
TCAGTGATGCTGTCCTTGATGCCCACCTTCAGCAGGATCCTGATGCCAAAGTAGCTTGTGAAACTGTTGCTAAAA
CTGGAATGATCCTTCTTGCTGGGGAAATTACATCCAGAGCTGCTGTTGACTACCAGAAAAGTGGTTCGTGAAGCTG
TTAAACACATTGGATATGATGATTCTTCCAAAGTTTTGACTACAAGACTTGTAACGTGCTGGTAGCCTTGGAGC
AACAGTCACCAGATATTGCTCAAGGTGTTTCATCTTGACAGAAATGAAGAAGACATTGGTGCTGGAGACCAGGGCT
TAATGTTTGGCTATGCCACTGATGAAACTGAGGAGTGTATGCCTTTAACCATTGTCTTGGCACACAAGCTAAATG
CCAAACTGGCAGAACTACGCCGTAATGGCACTTTGCCTTGGTTACGCCCTGATTCTAAACTCAAGTTACTGTGC
AGTATATGCAGGATCGAGGTGCTGTGCTTCCCATCAGAGTCCACACAATTGTTATATCTGTTTCAGCATGATGAAG
AGGTTTGTCTTGATGAAATGAGGGATGCCCTAAAGGAGAAAGTCATCAAAGCAGTTGTGCCCTGCGAAATACCTTG
ATGAGGATACAATCTACCACCTACAGCCAAGTGGCAGATTTGTTATTGGTGGGCTCAGGGTGATGCTGGTTTGA
CTGGACGCAAAATCATTGTGGACACTTATGGCGGTTGGGGTGCTCATGGAGGAGGTGCCTTTTCAGGAAAGGATT
ATACCAAGGTCGACCGTTTCAGCTGCTTATGCTGCTCGTTGGGTGGCAAAATCCCTTGTTAAAGGAGGTCTGTGCC
GGAGGGTTCTTGTTTCAGGTCTCTTATGCTATTGGAGTTTTCTCATCCATTATCTATCTCCATTTTCCATTATGGTA
CCTCTCAGAAGAGTGAGAGAGAGCTATTAGAGATTGTGAAGAAGAATTTTCGATCTCCGCCCTGGGGTCATTGTCA
GGGATCTGGATCTGAAGAAGCCAATTTATCAGAGGACTGCAGCCTATGGCCACTTTGGTAGGGACAGCTTCCCAT
GGGAAGTGCCCAAAAAGCTTAAATATTGAAAGTGTTAGCCTTTTTTCCCCAGACTTGTGGCGTAGGCTACAGAG
AAGCCTTCAAGCTCTGAGGGAAAGGGCCCTCCTTCTAAATTTTCTGTCTCTTTCAGCTCCTGACCAGTTGCA
GTCACTCTAGTCAATGACATGAATTTTAGCTTTTGTGGGGGACTGTAAGTTGGGCTTGCTATTCTGTCCCTAGGT
GTTTTGTTTACCATTATAATGAATTTAGTGAGCATAGGTGATCCATGTAAGTGCCTAGAAACAACACTGTAGTAA
ATAATGCTTTGAAATTGAACCTTTGTGCCCTATCACCCAACGCTCCAAAGTCATAATTGCATTGACTTTCCCCAC
CAGATGCTGAAAATGTCTTGTGATGTGCACGTAAAGTACTTGTAGTTCCACTTATAGCCTCTGTCTGGCAATGC
CACAGCCCTGTCAGCATGAATTTGTAATGTCTTGAGCTCTATTATGAATGTGAAGCCTTCCCCTTATCCTCCCTG
TAACTTGATCCATTTCTAATTATGTAGCTCTTTGTGAGGAGTGTTCCCTATCCAATCAATCTTGTCATGTAACGC
AAGTTCCCAGTTGGAGCTCCAGCCTGACATCAAAAAAGGCAGTTACCATTAAACCATCTCCCTGGTGCTTATGCT
CTTAATTGCCACCTCTAACAGCACCAATCAAAATCTCTCCACTTTTCAGCTGTCTTTTGGAGGACGTACGTAATA
AGGTTTTTAATTTAGTAAACCAATCCTATGCATGGTTTTCAGCACTAGCCAAACCTCACCAACTCCTAGTTCTAGAA
AAACAGGCACTTGGCAGCCTTGATGTATACAGAGAAGTCACAGGGCAGTACCTGAGGGTCTGTAGGTTGCAC
ACTTTGGTACCAGATAACTTTTTTTTTTCTTTATAAGAAAGCCTGAGTACTCCACACTGCACAATAACTCCTCCC
AGGGTTTTAACTTTGTTTTATTTTCAAAACCAGGTCCAATGAGCTTTCTGAACAGCTGGTGTAGCTACAGAGAAA
CCAGCTTCCCTCAGAGAGCAGTGCTTTTGGCGGGGAGGAGGAAATCCCTTCATACTTGAACGTTTTCTAATTGCT
TATTTATTGTATTCTGGGGTATGGCGTAAGTACAGAGAAGCCATCACCTCAGATGGCAGCTTTTAAAAGATTTTT
TTTTTTCTCTCAACACCATGATTCTTTAACAACATGTTTCCAGCATTCCCAGGTAGGCAAGGTGTCTACAG
AAAAACCTTGGGTAGACCTACAGGGGGTCTGGCTGGTGTAAACAGAAGGGAGGGCAGAGCTGGTGGCGCTGGCC
ATGGAGAAAGCTGACTTGGCTGGTGTGGTACAGAGAAGCCAGCTTGTTTACATGCTTATCCATGACTGCTTGCC
CTAAGCAGAAAGTGCTTTTTCAGGATCTATTTTGGAGGTTTATTACGTATGTCTGTTCTCAATTCCAACAGTTT
AATGAAGATCTAAATAAAATGCTAGGTTCTACCTTAAAAAAAAAAAAAAAAAAAA

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FIGURE 34

MNGQLNGFHEAFIEEGTFLFTSESVGEGHPDKICDQISDAVLDAHLQQDPDAKVACETVAKTGMILLAGEITSRA
AVDYQKVVREAVKHIGYDDSSKGFYKTCNVLVALEQQSPDIAQGVHLDRNEEDIGAGDQGLMFGYATDETEECM
PLTIVLAHKLNAKLAELRRNGTLPWLRPDSKTQVTVQYMQDRGAVLP IRVHTIVISVQHDEEVCLDEM RDALKEK
VIKAVVPAKYLDEDTIYHLQPSGRFVIGGPQGDAGLTGRKIIVD TYGGWGAHGGGAFSGKD YTKVDRSAAYAARW
VAKSLVKGGLCRRVLVQVSYAIGVSHPLSISIFHYGTSQKSERELLEIVKKNFDLRPGVIVRDLDLKKPIYQRTA
AYGHFGRDSFPWEVPKKLKY

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FIGURE 35

GGCACGAGGCGCCCGCTGCTACGAGTAGAACGCTGTCCGCAGCTTGCGCATTTCGCAGCCGCTGCCGCTCGCC
GCTGCTCCTTCGTAAGGCCACTTCCGCACACCGACACCAACATGAACGGACAGCTCAACGGCTTCCACGAGGCGT
TCATCGAGGAGGGCACATTCCCTTTTCACCTCAGAGTCGGTCGGGGAAGGCCACCCAGATAAGATTTGTGACCAA
TCAGTGATGCTGTCTTGATGCCCACCTTCAGCAGGATCCTGATGCCAAAGTAGCTTGTGAACTGTTGCTAAAA
CTGGAATGATCCTTCTTGCTGGGGAATTACATCCAGAGCTGCTGTTGACTACCAGAAAGTGGTTCGTGAAGCTG
TTAAACACATTGGATATGATGATTCTTCCAAAGTTTTGACTACAAGACTTGTAACGTGCTGGTAGCCTTGGAGC
AACAGTCACCAGATATTGCTCAAGGTGTTTCATCTTGACAGAAATGAAGAAGACATTGGTGTGAGAGCCAGGGCT
TAATGTTTGGCTATGCCACTGATGAACTGAGGAGTGTATGCCCTTAAACCATTGTCTTGGCACACAAGCTAAATG
CCAACTGGCAGAACTACGCCGTAATGGCACTTTGCCCTTGGTTACGCCCTGATTCTAAACTCAAGTTACTGTGC
AGTATATGCAGGATCGAGGTGCTGTGCTTCCCATCAGAGTCCACACAATTGTTATATCTGTTTCAGCATGATGAAG
AGGTTTGTCTTGATGAAATGAGGGATGCCCTAAAGGAGAAAGTCATCAAAGCAGTTGTGCCTGCGAAATACCTTG
ATGAGGATACAATCTACCACCTACAGCCAAGTGGCAGATTTGTTATTGGTGGGCCCTCAGGGTGATGCTGGTTTGA
CTGGACGCAAAATCATTGTGGACACTTATGGCGGTTGGGGTGCTCATGGAGGAGGTGCCTTTTCAGGAAAGGATT
ATACCAAGGTCGACCGTTCAGCTGCTTATGCTGCTCGTTGGGTGGCAAAATCCCTTGTTAAAGGAGGTCTGTGCC
GGAGGGTTCTTGTTTCAGGTCCTTATGCTATTGGAGTTTCTCATCCATTATCTATCTCCATTTTCCATTATGGTA
CCTCTCAGAAGAGTGAGAGAGAGCTATTAGAGATTGTGAAGAAGAATTTTCGATCTCCGCCCTGGGGTCATTGTCA
GGGATCTGGATCTGAAGAAGCCAATTTATCAGAGGACTGCAGCCTATGGCCACTTTGGTAGGGACAGCTTCCCAT
GGGAAGTGCCCAAAAGCTTAAATATTGAAAGTGTTAGCCTTTTTTCCCCAGACTTGTTGGCGTAGGCTACAGAG
AAGCCTTCAAGCTCTGAGGGAAAGGGCCCTCCTTCTAAATTTTCTGTCTCTTTCAGCTCCTGACCAGTTGCA
GTCACTCTAGTCAATGACATGAATTTTAGCTTTTGTGGGGGACTGTAAGTTGGGCTTGCTATTCTGTCCCTAGGT
GTTTTGTTACCATTATAATGAATTTAGTGAGCATAGGTGATCCATGTAAGTGCCTAGAAACAACACTGTAGTAA
ATAATGCTTTGAAATGAACCTTTGTGCCCTATCACCAACGCTCCAAAGTCATAATTGCATTGACTTTCCCCAC
CAGATGCTGAAAATGTCCTTGTGATGTGCACGTAAAGTACTTGTAGTTCCTTATAGCCTCTGTCTGGCAATGC
CACAGCCCTGTCAGCATGAATTTGTAATGTCTTGAGCTCTATTATGAATGTGAAGCCTTCCCCTTATCCTCCCTG
TAACTTGATCCATTTCTAATTATGTAGCTCTTTGTGAGGAGTGTTCCCTATCCAATCAATCTTGCATGTAACGC
AAGTTCCCAGTTGGAGCTCCAGCCTGACATCAAAAAAGGCAGTTACCATTAAACCATCTCCCTGGTGCTTATGCT
CTTAATTGCCACCTCTAACAGCACCAATCAAAATCTCTCCACTTTCAGCTGTCTTTTGGAGGACGTACGTAATA
AGGTTTTTAATTTAGTAAACCAATCCTATGCATGGTTTCAGCACTAGCCAAACCTCACCAACTCCTAGTTCTAGAA
AAACAGGCACTTGGCAGCCTTGTGATGTCATACAGAGAAGTCACAGGGCAGTACCTGAGGGTCTGTAGGTTGCAC
ACTTTGGTACCAGATAACTTTTTTTTTTCTTTATAAGAAAGCCTGAGTACTCCACACTGCACAATAACTCCTCCC
AGGGTTTTAACTTTGTTTTATTTTCAAACCAGGTCCAATGAGCTTTCTGAACAGCTGGTGTAGCTACAGAGAAA
CCAGCTTCCTTCAGAGAGCAGTGCTTTTGGCGGGGAGGAGGAAATCCCTTCATACCTGAACGTTTTCTAATTGCT
TATTTATTGTATTCTGGGGTATGGCGTAAGTACAGAGAAGCCATCACCTCAGATGGCAGCTTTTAAAGATTTTT
TTTTTTCTCTCAACACCATGATTCCCTTAAACAACATGTTTCCAGCATTCCTCAGGTAGGCCAAGGTGTCCTACAG
AAAAACCTTGGGTAGACCTACAGGGGCTGGCTGGTGTAAACAGAAGGGAGGGCAGAGCTGGTGC GGCTGGCC
ATGGAGAAAGCTGACTTGGCTGGTGTGGTACAGAGAAGCCAGCTTGTTTACATGCTTATTCATGACTGCTTGCC
CTAAGCAGAAAGTGCTTTTCAGGATCTATTTTGGAGGTTTATTACGTATGTCTGGTTCTCAATTCCAACAGTTT
AATGAAGATCTAAATAAAATGCTAGGTTCTACCTTAAAAAAAAAAAAAAAAAAAA

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FIGURE 36

MNGQLNGFHEAFIEEGTFLFTSESVGEGHPDKICDQISDAVLDAHLQQDPDAKVACETVAKTGMILLAGEITSRA
AVDYQKVVREAVKHIGYDDSSKGFYKTCNVLVALEQQSPDIAQGVHLDRNEEDIGAGDQGLMFGYATDETEECM
PLTIVLAHKLNAKLAELRRNGTLPWLRPDSKTQVTVQYMQDRGAVLP IRVHTIVISVQHDEEVCLDEMRDALKEK
VIKAVVPAKYLDDETIYHLQPSGRFVIGGPQGDAGLTGRKIIVD TYGGWGAHGGGAFSGKDYTKVDRSAAYAARW
VAKSLVKGGLCRRVLVQVSYAIGVSHPLSISIFHYGTSQKSERELLEIVKKNFDLRPGVIVRDLDLKKPIYQRTA
AYGHFGRDSFPWEVPPKKLKY

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FIGURE 37

GTCAGTCCCTCCTGTAGCCGCCGCCGCCGCCGCCGCCGCCCTCTGCCAGCAGCTCCGGCGCCACCTCGGGCCG
GCGTCTCCGGCGGGCGGGAGCCAGGCGCTGACGGGCGCGGCGGGGCGGCCGAGCGCTCCTGCGGCTGCGACTCA
GGCTCCGGCGTCTGCGCTTCCCATGGGGCTGGCCTGCGGCGCCTGGGCGCTCTGAGATTGTCACTGCTGTTCCA
AGGGCACACGCAGAGGGATTGGAATTCCTGGAGAGTTGCCCTTTGTGAGAAGCTGGAAATATTTCTTTCAATTCC
ATCTCTTAGTTTTCCATAGGAACATCAAGAAATCATGAACAACCTTTGGTAATGAAGAGTTTGACTGCCACTTCCT
CGATGAAGGTTTTACTGCCAAGGACATTCTGGACCAGAAAATTAATGAAGTTTCTTCTTCTGATGATAAGGATGC
CTTCTATGTGGCAGACCTGGGAGACATTCTAAAGAAACATCTGAGGTGGTTAAAAGCTCTCCCTCGTGTCACCCC
CTTTTATGCAGTCAAATGTAATGATAGCAAAGCCATCGTGAAGACCCTTGCTGCTACCGGGACAGGATTTGACTG
TGCTAGCAAGACTGAAATACAGTTGGTGCAGAGTCTGGGGGTGCCTCCAGAGAGGATTATCTATGCAAATCCTTG
TAAACAAGTATCTCAAATTAAGTATGCTGCTAATAATGGAGTCCAGATGATGACTTTTGATAGTGAAGTTGAGTT
GATGAAAGTTGCCAGAGCACATCCCAAAGCAAAGTTGGTTTTGCGGATTGCCACTGATGATTTCAAAGCAGTCTG
TCGCTCTCAGTGTGAAATTCGGTGCCACGCTCAGAACCAGCAGGCTCCTTTTGGAAACGGGCGAAAGAGCTAAATAT
CGATGTTGTTGGTGTGAGCTTCCATGTAGGAAGCGGCTGTACCGATCCTGAGACCTTCGTGCAGGCAATCTCTGA
TGCCCGCTGTGTTTTTACATGGGGGCTGAGGTTGGTTTTAGCATGTATCTGCTTGATATTGGCGGTGGCTTTCC
TGGATCTGAGGATGTGAAACTTAAATTTGAAGAGATCACCGGCGTAATCAACCCAGCGTTGGACAAATACTTTCC
GTCAGACTCTGGAGTGAGAATCATAGCTGAGCCCGGCAGATACTATGTTGCATCAGCTTTCACGCTTGCAAGTTAA
TATCATTGCCAAGAAAATTGTATTAAAGGAACAGACGGGCTCTGATGACGAAGATGAGTCGAGTGAGCAGACCTT
TATGTATTATGTGAATGATGGCGTCTATGGATCATTTAATTGCATACTCTATGACCACGCACATGTAAAGCCCTT
CTGCAAAAGAGACCTAAACCAGATGAGAAGTATTATTCATCCAGCATATGGGGACCAACATGTGATGGCCTCGA
TCGGATTGTTGAGCGCTGTGACCTGCCTGAAATGCATGTGGGTGATTGGATGCTCTTTGAAAACATGGGCGCTTA
CACTGTTGCTGCTGCCTCTACGTTCAATGGCTTCCAGAGGCCGACGATCTACTATGTGATGTCAGGGCCTGCGTG
GCAACTCATGCAGCAATTCCAGAACCCCGACTTCCACCCGAAGTAGAGGAACAGGATGCCAGCACCTGCCTGT
GTCTTGCTGCTGGGAGAGTGGGATGAAACGCCACAGAGCAGCCTGTGCTTCGGCTAGTATTAATGTGTAGATAGC
ACTCTGGTAGCTGTAACTGCAAGTTTAGCTTGAATTAAGGGATTTGGGGGGACCATGTAACCTTAATTACTGCTA
GTTTTGAAATGTCTTTGTAAGAGTAGGGTCGCCATGATGCAGCCATATGGAAGACTAGGATATGGGTCACACTTA
TCTGIGTTTCTATGGAACTATTTGAATATTTGTTTTATATGGATTTTTATTCACTCTTCAGACACGCTACTCAA
GAGTGCCCTCAGCTGCTGAACAAGCATTTGTAGCTTGTACAATGGCAGAATGGGCCAAAAGCTTAGTGTTGTGA
CCTGTTTTTAAATAAAGTATCTTGAAATAATTAGGC

FIGURE 38

MNFGNEEFDCHFLDEGFTAKDILDQKINEVSSSDDKDAFYVADLGDILKKHLRWLKA
LPRVTPFYAVKCND
SKAIVKTLAATGTGFDCASKTEIQLVQSLGVPPERIIYANPCKQVSQIKYAANNGVQMMTFDSE
VELMKVARAHPKAK
LVLRIATDDSKAVCRLSVKFGATLRTSRLLLERAKELNIDVVGVSFHVSGCTDPETFVQAIS
DARCVFDMGAEV
GFSMYLLDIGGGFPGSEDVKLKFEEITGVINPALDKYFPSDSGVRIIAEPGRYYVASAFTLAV
NIIAKKIVLKEQ
TGSDDEDESSEQTFMYVNDGVYGSFNCILYDHAHVKPLLQKRPKPDEKYYSSSIWGPTCDGL
DRIVERCDLPEM
HVGDWMLFENMGAYTVAAASTFNGFQRPTIYYVMGPAWQLMQQFQNPDPPEVEEQDASTLPV
SCAWESGMKRH
RAACASASINV

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FIGURE 39

CACGCTTGCCGCCGCCCGCAGAAATGCTTCGGTTACCCACAGTCTTTCGCCAGATGAGACCGGTGTCCAGGGTA
CTGGCTCCTCATCTCACTCGGGCTTATGCCAAAGATGTAAAATTTGGTGCAGATGCCCGAGCCTTAATGCTTCAA
GGTGTAGACCTTTTAGCCGATGCTGTGGCCGTTACAATGGGGCCAAAGGGAAGAACAGTGATTATTGAGCAGGGT
TGGGGAAGTCCCAAAGTAACAAAAGATGGTGTGACTGTTGCAAAGTCAATTGACTTAAAAGATAAAATACAAGAAC
ATTGGAGCTAAACTTGTTCAGATGTTGCCAATAACACAAATGAAGAAGCTGGGGATGGCACTACCACTGCTACT
GTACTGGCACGCTCTATAGCCAAGGAAGGCTTCGAGAAGATTAGCAAAGGTGCTAATCCAGTGGAATCAGGAGA
GGTGTGATGTTAGCTGTTGATGCTGTAATTGCTGAACCTTAAAAAGCAGTCTAAACCTGTGACCACCCCTGAAGAA
ATTGCACAGGTTGCTACGATTTCTGCAAACGGAGACAAAGAAATTGGCAATATCATCTCTGATGCAATGAAAAA
GTTGGAAGAAAGGTGTGTCATCAGTAAAGGATGGAAAAACACTGAATGATGAATTAGAAATTATTGAAGGCATG
AAGTTTGATCGAGGCTATATTTCTCCATACTTTATTAATACATCAAAAGGTCAGAAATGTGAATTCCAGGATGCC
TATGTTCTGTTGAGTGAAAAGAAAATTTCTAGTATCCAGTCCATTGTACCTGCTCTTGAAATTGCCAATGCTCAC
CGTAAGCCTTTGGTCATAATCGCTGAAGATGTTGATGGAGAAGCTCTAAGTACACTCGTCTTGAAATAGGCTAAAG
GTTGGTCTTCAGGTTGTGGCAGTCAAGGCTCCAGGGTTTGGTGACAATAGAAAGAACCAGCTTAAAGATATGGCT
ATTGCTACTGGTGGTGAGTGTGTTGGAGAAGAGGGATTGACCCTGAATCTTGAAGACGTTTCAGCCTCATGACTTA
GGAAAAGTTGGAGAGGTCATTGTGACCAAAGACGATGCCATGCTCTTAAAGGAAAAGGTGACAAGGCTCAAATT
GAAAAACGTATTCAAGAAATCATTGAGCAGTTAGATGTCACAAGTGTGAATATGAAAAGGAAAAACTGAATGAA
CGGCTTGCAAACCTTCAGATGGAGTGGCTGTGCTGAAGGTTGGTGGGACAAGTGATGTTGAAGTGAATGAAAAG
AAAGACAGAGTTACAGATGCCCTTAATGCTACAAGAGCTGCTGTTGAAGAAGGCATTGTTTTGGGAGGGGGTTGT
GCCCTCCTTCGATGCATTCCAGCCTTGACTCATTGACTCCAGCTAATGAAGATCAAAAAATTGGTATAGAAATT
ATTAAAAGAACACTCAAAATCCAGCAATGACCATTGCTAAGAATGCAGGTGTTGAAGGATCTTTGATAGTTGAG
AAAATTATGCAAAGTTCTCAGAAGTTGGTTATGATGCTATGGCTGGAGATTTTGTGAATATGGTGGAAAAAGGA
ATCATTGACCCAACAAAGGTTGTGAGAACTGCTTTATTGGATGCTGCTGGTGTGGCCTCTCTGTAACTACAGCA
GAAGTTGTAGTCACAGAAATTCCTAAAGAAGAGAAGGACCCTGGAATGGGTGCAATGGGTGGAATGGGAGGTGGT
ATGGGAGGTGGCATGTTCTAACTCCTAGACTAGTGCTTTACCTTTATTAATGAACTGTGACAGGAAGCCCAAGGC
AGTGTTCCTCACCAATAACTTCAGAGAAGTCAGTTGGAGAAAATGAAGAAAAAGGCTGGCTGAAAATCACTATAA
CCATCAGTTACTGGTTTCAGTTGACAAAAATATATAATGGTTTACTGCTGTCATTGTCCATGCCTACAGATAATTT
ATTTTGTATTTTTGAATAAAAAACATTTGTACATTCCTGATACTGGGTACAAGAGCCATGTACCAGTGCTACTGCT
TTCAACTTAAATCACTGAGGCATTTTTACTACTATTCTGTTAAATCAGGATTTTAGTGCTTGCCACCACCAGAT
GAGAAGTTAAGCAGCCTTTCTGTGGAGAGTGAGAATAATTGTGTACAAAGTAGAGAAGTATCCAATTATGTGACA
ACCTTTGTGTAATAAAAAATTTGTTTAA

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FIGURE 40

MLRLPTVFRQMRPVSRVLAPHLTRAYAKDVKFGADARALMLQGVDLLADAVAVTMGPKGRTVIEQGWGSPKVTK
DGVTVAKSIDLKDYKNIGAKLVQDVANNTNEEAGDGTTTATVLARSIKEGFEEKISGANPVEIRRGVMLAVDA
VIAELKKQSKPVTTPEEIAQVATISANGDKEIGNIISDAMKKVGRKGVITVKDGKTLNDELEIEGMKFDRGYIS
PYFINTSKGQKCEFQDAYVLLSEKKISSIQSIVPALEIANAHRKPLVIAEDVDGEALSTLVNRLKVGLQVVAV
KAPGFGDNRKNQLKDMAIATGGAVFGEEGLTLNLEDVQPHDLGKVGEVIVTKDDAMLLKGKGDKAQIEKRIQEII
EQLDVTTSEYEKEKLNERLAKLSDGVAVLKVGGTSDVEVNEKKDRVTDALNATRAAVEEGIVLGGGCALLRCIPA
LDSLTPANEDQKIGIEIIKRTLKIPAMTIAKNAGVEGSLIVEKIMQSSSEVGYDAMAGDFVNMVEKGIIDPTKV
RTALLDAAGVASLLTTAEVVVTEIPKEEKDPGMGAMGGMGGMGGMGMF

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FIGURE 41

CACGCTTGCCGCCGCCCGCAGAA**ATG**CTTCGGTTACCCACAGTCTTTGCCAGATGAGACCGGTGTCCAGGGTA
CTGGCTCCTCATCTCACTCGGGCTTATGCCAAAGATGTAAAATTTGGTGCAGATGCCCAGCCTTAATGCTTCAA
GGTGTAGACCTTTTAGCCGATGCTGTGGCCGTTACAATGGGGCCAAAGGGAAGAACAGTGATTATTGAGCAGGGT
TGGGGAAGTCCCAAAGTAACAAAAGATGGTGTGACTGTTGCAAAGTCAATTGACTTAAAGATAAATACAAGAAC
ATTGGAGCTAACTTGTTCAAGATGTTGCCAATAACACAAATGAAGAAGCTGGGGATGGCACTACCACTGCTACT
GTACTGGCACGCTCTATAGCCAAGGAAGGCTTCGAGAAGATTAGCAAAGGTGCTAATCCAGTGGAATCAGGAGA
GGTGTGATGTTAGCTGTTGATGCTGTAATTGCTGAACTTAAAAAGCAGTCTAAACCTGTGACCACCCCTGAAGAA
ATTGCACAGGTTGCTACGATTTCTGCAAACGGAGACAAAGAAATTGGCAATATCATCTCTGATGCAATGAAAAA
GTTGGAAGAAAGGGTGTCATCACAGTAAAGGATGGAAAAACACTGAATGATGAATTAGAAATTATTGAAGGCATG
AAGTTTGATCGAGGCTATATTTCTCCATACTTTATTAATACATCAAAGGTCAGAAATGTGAATTCCAGGATGCC
TATGTTCTGTTGAGTGAAAAGAAAATTTCTAGTATCCAGTCCATTGTACCTGCTCTTGAAATTGCCAATGCTCAC
CGTAAGCCTTTGGTCATAATCGCTGAAGATGTTGATGGAGAAGCTCTAAGTACACTCGTCTTGAAATAGGCTAAAG
GTTGGTCTTCAGGTTGTGGCAGTCAAGGCTCCAGGGTTTGGTGACAATAGAAAGAACCAGCTTAAAGATATGGCT
ATTGCTACTGGTGGTGCAGTGTGTTGGAGAAGAGGGATTGACCCTGAATCTTGAAGACGTTTCAGCCTCATGACTTA
GGAAAAGTTGGAGAGGTCATTGTGACCAAAGACGATGCCATGCTCTTAAAAGGAAAAGGTGACAAGGCTCAAATT
GAAAAACGTATTCAAGAAATCATTGAGCAGTTAGATGTCACAACTAGTGAATATGAAAAGGAAAAACTGAATGAA
CGGCTTGCAAACCTTTCAGATGGAGTGGCTGTGCTGAAGGTTGGTGGGACAAGTGATGTTGAAGTGAATGAAAAG
AAAGACAGAGTTACAGATGCCCTTAATGCTACAAGAGCTGCTGTTGAAGAAGGCATTGTTTTGGGAGGGGGTTGT
GCCCTCCTTCGATGCATTCCAGCCTTGGACTCATTGACTCCAGCTAATGAAGATCAAAAAATTGGTATAGAAATT
ATTAAGAAGAACTCAAAATTCAGCAATGACCATTGCTAAGAATGCAGGTGTTGAAGGATCTTTGATAGTTGAG
AAAATTATGCAAAGTTCCTCAGAAGTTGGTTATGATGCTATGGCTGGAGATTTTGTGAATATGGTGGAAAAAGGA
ATCATTGACCCAACAAAGGTTGTGAGAACTGCTTTATTGGATGCTGCTGGTGTGGCCTCTCTGTAACTACAGCA
GAAGTTGTAGTCACAGAAATTCCTAAAGAAGAGAAGGACCCTGGAATGGGTGCAATGGGTGGAATGGGAGGTGGT
ATGGGAGGTGGCATGTTCT**TA**ACTCCTAGACTAGTGCTTTACCTTTATTAATGAAGTGTGACAGGAAGCCCAAGGC
AGTGTTCCTCACCAATAACTTCAGAGAAGTCAGTTGGAGAAAATGAAGAAAAAGGCTGGCTGAAAATCACTATAA
CCATCAGTTACTGGTTTCAGTTGACAAAATATATAATGGTTTACTGCTGCTCATTGTCCATGCCTACAGATAATTT
ATTTTGTATTTTGAATAAAAAACATTTGTACATTCCTGATACTGGGTACAAGAGCCATGTACCAGTGACTGCT
TTCAACTTAAATCACTGAGGCATTTTACTACTATTCTGTTAAAATCAGGATTTTAGTGCTTGCCACCACCAGAT
GAGAAGTTAAGCAGCCTTTCTGTGGAGAGTGAGAATAATTGTGTACAAAGTAGAGAAGTATCCAATTATGTGACA
ACCTTTGTGTAATAAAAATTTGTTTAA

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FIGURE 42

MLRLPTVFRQMRPVSRVLAPHLTRAYAKDVKFGADARALMLQGVDLLADAVAVTMGPKGRTVIEQGWGSPKVTK
DGVTVAKSIDLKDKYKNIGAKLVQDVANNTNEEAGDGTTTATVLARSIAKEGFEEKISKGANPVEIRRGVMLAVDA
VIAELKKQSKPVTTPEEIAQVATISANGDKEIGNIISDAMKKVGRKGVITVKDGKTLNDELEIEGMKFDRGYIS
PYFINTSKGQKCEFQDAYVLLSEKKISSIQSIVPALEIANAHRKPLVIAEDVDGEALSTLVNRLKVGLQVVAV
KAPGFGDNRKNQLKDMAIATGGAVFGEEGLTLNLEDVQPHDLGKVGEVIVTKDDAMLLKGKGDKAQIEKRIQEI
EQLDVTTSEYEKEKLNERLAKLSDGVAVLVKGGTSDVEVNEKKDRVTDALNATRAAVEEGIVLGGGCALLRCIPA
LDSLTPANEDQKIGIEIIKRTLKIPAMTIAGNAGVEGSLIVEKIMQSSSEVGYDAMAGDFVNMVEKGIIDPTKV
RTALLDAAGVASLLTTAEVVVTEIPKEEKDPGMGAMGGMGGMGGMF

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FIGURE 43A

AGCGCCCGCCGCGTCCGGGGCCGGCTGGTGCGCGAGACGCCGCCGAGAGTTGTGAAGGGCGCGGGTGGGGGGCGC
TGCCGGCCTCGTGGGTACGTTCTGTGCCGCTCTGTCCAGAGCTGGGGCCGAGGAGCGGAGGCAAGAGGGGCAC
TATGGCGAGACAAAGTTAGGAGGCAGAGGCCGAGGAGGCGAGTCTGTTGGGCCTTGGTGGCTGTGCTCTTGGCAGA
CCTGTTGGCACTGAGTGATACTGGCAGTGATGTCTGTGGACCTGGGCAGTGAGTCCATGAAGGTGGCCATTGT
CAAACCTGGAGTGCCCATGGAAATTGTCTTGAATAAGGAATCTCGGAGGAAAACACCGGTGATCGTGACCCTGAA
AGAAAATGAAAGATTCTTTGGAGACAGTGCAGCAAGCATGGCGATTAAAGAATCCAAAGGCTACGCTACGTTACTT
CCAGCACCTCCTGGGGAAGCAGGCAGATAACCCCCATGTAGCTCTTTACCAGGCCCGCTTCCCGGAGCACGAGCT
GACTTTTCGACCCACAGAGGCAGACTGTGCACTTTTCAATCAGCTCGCAGCTGCAGTTCTCACCTGAGGAAGTGTT
GGGCATGGTTCTCAATTATTCTCGTTCTCTAGCTGAAGATTTTGCAGAGCAGCCCATCAAGGATGCAGTGATCAC
CGTGCCAGTCTTCTTCAACCAGGCCGAGCGCCGAGCTGTGCTGCAGGCTGCTCGTATGGCTGGCCTCAAAGTGCT
GCAGCTCATCAATGACAACACCGCCACTGCCCTCAGCTATGGTGTCTTCCGCCGGAAGATATTAACACCACTGC
CCAGAATATCATGTTCTATGACATGGGCTCAGGCAGCACCGTATGCACCATTGTGACCTACCAGATGGTGAAGAC
TAAGGAAGCTGGGATGCAGCCACAGCTGCAGATCCGGGGAGTAGGATTTGACCGTACCCTGGGGGGCCTGGAGAT
GGAGCTCCGGCTTCGAGAACGCCTGGCTGGGCTTTTCAATGAGCAGCGCAAGGGTCAGAGAGCAAAGGATGTGCG
GGAGAACCCGCGTGCCATGGCCAAGCTGCTGCGTGAGGCTAATCGGCTCAAACCGTCTCAGTGCCAACGCTGA
CCACATGGCACAGATTGAAGGCCTGATGGATGATGTGGACTTCAAGGCAAAAGTGACTCGTGTGGAATTTGAGGA
GTTGTGTGCAGACTTGTTTGGAGCGGTGCCTGGGCCTGTACAGCAGGCCCTCCAGAGTGCCGAAATGAGTCTGGA
TGAGATTGAGCAGGTGATCCTGGTGGGTGGGGCCACTCGGGTCCCAGAGTTCAGGAGGTGCTGCTGAAGGCCGT
GGGCAAGGAGGAGCTGGGGAAGAACATCAATGCAGATGAAGCAGCCGCCATGGGGGCAGTGTACCAGGCAGCTGC
GCTCAGCAAAGCCTTTAAAGTGAAGCCATTTGTGCTCCGAGATGCAGTGGTCTACCCCATCTGGTGGAGTTTAC
GAGGGAGGTGGAGGAGGAGCCTGGGATTACAGCCTGAAGCACAATAAACGGGTACTCTTCTCTCGGATGGGGCC
CTACCCCTCAACGCAAAGTCATCACCTTTAACCGCTACAGCCATGATTTCAACTTCCACATCAACTACGGCGACCT
GGGCTTCTCGGGCCTGAAGATCTTCGGGTATTTGGCTCCCAGAATCTGACCACAGTGAAGCTAAAAGGGGTGGG
TGACAGCTTCAAGAAGTATCTGACTACGAGTCCAAGGGCATCAAGGCTCACTTCAACCTGGATGAGAGTGGCGT
GCTCAGTCTAGACAGGTTGGAGTCTGTATTTGAGACACTGGTAGAGGACAGCGCAGAAGAGGAATCTACTCTCAC
CAAACCTTGGCAACACCATTTCAGCCTGTTTGGAGGCGGTACCACACCAGATGCCAAGGAGAATGGTACTGATAC
TGTCCAGGAGGAAGAGGAGAGCCCTGCAGAGGGGAGCAAGGACGAGCCTGGGGAGCAGGTGGAGCTCAAGGAGGA
AGCTGAGGCCCCAGTGGAGGATGGCTCTCAGCCCCACCCCTGAACCTAAGGGAGATGCAACCCCTGAGGGAGA
AAAGGCCACAGAAAAAGAAAATGGGGACAAGTCTGAGGCCCAGAAACCAAGTGAGAAGGCAGAGGCAGGGCCTGA
GGGCGTCGCTCCAGCCCCAGAGGGAGAGAAGAAGCAGAAGCCCGCCAGGAAGCGGCGAATGGTAGAGGAGATCGG
GGTGGAGCTGGTTGTTCTGGACCTGCCTGACTTGCCAGAGGATAAGCTGGCTCAGTCGGTGCAGAACTTCAGGA
CTTGACACTCCGAGACCTGGAGAAGCAGGAACGGGAAAAAGCTGCCAACAGCTTGAAGCGTTTCAATTTGAGAC
CCAGGACAAGCTGTACCAGCCCGAGTACCAGGAAGTGTCCACAGAGGAGCAGCGTGAGGAGATCTCTGGGAAGCT
CAGCGCCGCATCCACCTGGCTGGAGGATGAGGGTGTGGAGCCACCACAGTGATGTTGAAGGAGAAGCTGGCTGA
GCTGAGGAAGCTGTGCCAAGGGCTGTTTTTTCGGGTAGAGGAGCGCAAGAAGTGGCCCGAACGGCTGTCTGCCCT
CGATAATCTCCTCAACCATTCCAGCATGTTTCTCAAGGGGGCCCGGCTCATCCAGAGATGGACCAGATCTTCAC
TGAGGTGGAGATGACAACGTTAGAGAAAGTCATCAATGAGACCTGGGCCTGGAAGAATGCAACTCTGGCCGAGCA
GGCTAAGCTGCCCCGCCACAGAGAAGCCTGTGTTGCTCTCAAAAGACATTGAAGCTAAGATGATGGCCCTGGACCG
AGAGGTGCAGTATCTGCTCAATAAGGCCAAGTTTACCAAGCCCCGGCCCCGGCCTAAGGACAAGAATGGGACCCG
GGCAGAGCCACCCCTCAATGCCAGTGCCAGTGACCAGGGGGAGAAGGTTCATCCCTCCAGCAGGCCAGACTGAAGA
TGCAGAGCCCATTTCAGAACCTGAGAAAGTAGAGACTGGATCCGAGCCAGGAGACACTGAGCCTTTGGAGTTAGG
AGGTCTCTGGAGCAGAACCTGAACAGAAAGAACAATCGACAGGACAGAAGCGGCCTTTGAAGAACGACGAAC**TATA**
ACCCCACCTCTGTTTTCCCATTCATCTCACCCCTTCCCCACCACTTCTATTTATTTAACATCGAGGGTTG
GGGGAGGGGTTGGTCTTGCCTCGGCTGGAGTTCCTTTCTCACCCCTGTGATTGGAGGTGTGGAGAAGGGGAAG
GGAGGGACAGCTCACTGGTTCCTTCTGCAGTACCTCTGTGGTTAAAAATGGAACTGTTCTCCTCCCCAGCCCCA
CTCCTGTTCCCTACCATATAGGCCCTAAATTTGGGAAAAATCACTATTAATTTCTGAATCCTTTGCCTGTGGG
TAGGAAGAGAATGGCTGCCAGTGGCTGATGGGTCCCGGTGATGGGAAGGGTATCAGGTTGCTGGGGAGTTTCCAC
TCTTCTCTGGTGATTGTTCTTCCCTCCCTTCTCTCCACCATGCGATGAGCATCCTTTAGGCCAGTGTCTGC

FIGURE 43B

AGAGCCTCAGTTACCAGGTTTGGTTTCTGAGTGCCTATCTGTGCTCTTTCCCTCCCTCTGCGGGCTTCTCTTGCTC
TGAGCCTCCCTTTCCCCATTCCCATGCAGCTCCTTTCCCCCTGGGTTTCTTGGCTTCCTGCAGCAAATTGGGCAG
TTCTCTGCCCCTTGCCATAAAGCCTGTACCTCTGGATTGGCGGAAGTAAATCTGGAAGGATTCTCACTCGTATTT
CCCACCCCTAGTGGCCAGAGGAGGGAGGGGCACAGTGAAGAAGGGAGCCCACCACCTCTCCGAAGAGGAAAGCCA
CGTAGAGTGGTTGGCATGGGGTGCCAGCATCGTGCAAGCTCTGTCATAATCTGCATCTTCCCAGCAGCCTGGTAC
CCCAGGTTCCCTGTAACTCCCTGCCTCCTCCTCTCTTCTGCTGTTCTGCTCCTCCCAGACAGAGCCTTTCCCTCAC
CCCCTGACCCCTGGGCTGACCAAAATGTGCTTTCTACTGTGAGTCCCTATCCCAAGATCCTGGGGAAAGGAGAG
ACCATGGTGTGAATGTAGAGATGCCACCTCCCTCTCTCTGAGGCAGGCCTGTGGATGAAGGAGGAGGGTCAGGGC
TGGCCTTCCTCTGTGCATCACTCTGCTAGGTTGGGGGCCCCGACCCACCATACTACGCCTAGGGAGCCCGTCC
TCCAGTATTCCGTCTGTAGCAGGAGCTAGGGCTGCTGCCTCAGCTCCAAGACAAGAATGAACCTGGCTGTGTCAG
TCATTTTGTCTTTTCCCTTTTTTTTTTTTTTGGCACATTGGCAGAGATGGGACCTAAGGGTCCCACCCCTCACCCCA
CCCCACCTCTTCTGTATGTTTGAATTCCTTCAGTAGCTGTTGATGCTGGTTGGACAGGTTTGAGTCAAATTGTA
CTTTGCTCCATTGTTAATTGAGAACTGTTTCAATAAAATATTCTTTTCTAC

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FIGURE 44

MADKVRQRPRRRVCWALVAVLLADLLALSDTLAVMSVDLGSESMKVAIVKPGVPM EIVLNKESRRKTPVIVTLK
ENERFFGDSAASMAIKNPKATLRYFQHLLGKQADNPHVALYQARFPEHELTTFDPQRQTVHFQISSQLQFSPEEVL
GMVLNYSRSLAEDFAEQPIKDAVITVPVFFNQAERRAVLQAARMAGLKVLQLINDNTATALS YGVFRRKDINTTA
QNIMFYDMGSGSTVCTIVTYQMVKTK EAGMQPQLQIRGVGFDRTLGGLEME LRLRERLAGLFNEQRKGQRAKDVR
ENPRAMAKLLREANRLKTVLSANADHMAQIEGLMDDVDFKAKVTRVEFEELCADL FERVPGPVQQALQSAEMSLD
EIEQVILVGGATRVPRVQEVL LKAVGKEELGKNINADEAAA MGAVYQAAALSKAFKVKPFVVRDAVVYPILVEFT
REVEE EPGIHSLKHNRVLF SRMGYPQRKVITFNRYSHDFNFHINYGDLGFLGPEDLRVFGSQNLTTVKLKGVG
DSFKKYPDYESKGIKAHFNLD ESVGLSLDRVESVFETLVEDSAEEESTLT KLGNTISSLFGGGTTPDAKENGDTT
VQEEEE SPAEGSKDEPGEQVELKEEAEAPVEDGSQPPPPPEPKGDATPEGEKATEKENGDKSEAQKPS EKA EAGPE
GVAPAPEGEKKQKPARKRRMVEEIGVELVVLDPDL PEDKLAQSVQKLQDLTLRDLEKQEREKAANSLEAFIFET
QDKLYQPEYQEVSTEEQREEISGKLSAASTWLEDEGVGATTVM LKEKLAELRKLCQGLFFRVEERKKWPERLSAL
DNLLNHSSMFLKGARLIPEMDQIFTEVEMTTLEKVINETWAWKNATLAEQAKLPATEKPVLLSKDIEAKMMALDR
EVQYLLNKAKFTKPRPRPKDKNGTRAEPPLNASASDQGEKVIPPAGQTEDAEP ISEPEKVETGSEPGDTEPLELG
GPGAEP EQKEQSTGQKRPLKNDEL

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FIGURE 45

ATACACGTGCCATGTGCAGCATGAGGGGCTACCCGAGCCCGTCACCCTGAGATGGAAGCCGGCTTCCCAGCCCAC
CATCCCCATCGTGGGCATCATTGCTGGCCTGGTTCTCCTTGGATCTGTGGTCTCTGGAGCTGTGGTTGCTGCTGT
GATATGGAGGAAGAAGAGCTCAGGTGGAAGAGGGAGCTACTCTAAGGCTGAGTGGAGCGACAGTGCCAGGG
GTCTGAGTCTCACAGCTTGTAAGCCTGAGACAGCTGCCCTGTGTGCGACTGAGATGCACAGCTGCCCTGTGTGC
GACTGAGATGCAGGATTTCCCTCAGCCTCCCCTATGTGTCTTAGGGGACTCTGGCTTCTCTTTTTGCAAGGGCCT
CTGAATCTGTCTGTGTCCCTGTTAGCACAATGTGAGGAGGTAGAGAAACAGTCCACCTCTGTGTCTACCATGACC
CCCTTCCTCACACTGACCTGTGTTCCCTTCCCTGTTCTCTTTCTATTAAAAATAAGAACCTGGGCAGAGTGCGGC
AGCTCATGCCTGTAATCCCAGCACTTAGGGAGGCCGAGGAGGGCAGATCACGAGGTCAGGAGATCGAAACCATCC
TGGCTAACACGGTGAAACCCCGTCTCTACTAAAAAATACAAAAAATTAGCTGGGCGCAGAGGCACGGGCCTGTAG
TCCCAGCTACTCAGGAGGCGGAGGCAGGAGAATGGCGTCAACCCGGGAGGCGGAGGTTGCAGTGAGCCAGGATTG
TGCGACTGCACTCCAGCCTGGGTGACAGGGTGAAACGCCATCTCAAAAAATAAAAAATAAAAAATAAAAAAGAA
CCTGGATCTCAATTTAATTTTTTCATATTCTTGCAATGAAATGGACTTGAGGAAGCTAAGATCATAGCTAGAAATA
CAGATAATTCCACAGCACATCTCTAGCAAATTTAGCCTATTCTCTAGCCTATTCTTACCACCTGTAAT
CTTGACCATATACCTTGGAGTTGAATATTGTTTTCTACTGCTGTGGTTTGAATGTTCCCTCCAACACTCATGTT
GAGACTTAATCCCTAATGTGGCAATACTGAAAGGTGGGGCCTTTGAGATGTGATTGGATCGTAAGGCTGTGCCTT
CATTCTATGGGTAAATGGATTAATGGGTTATCACAGGAATGGGACTGGTGGCTTTATAAGAAGAGGAAAAGAGAAC
TGAGCTAGCATGCCCAACCCACAGAGAGCCTCCACTAGAGTGATGCTAAGTGGAATGTGAGGTGCAGCTGCCAC
AGAGGGCCCCCACCAGGGAATGTCTAGTGTCTAGTGGATCCAGGCCACAGGAGAGAGTGCCTTGTGGAGCGCTG
GGAGCAGGACCTGACCACCACCAGGACCCAGAAGTGTGGAGTCAGTGGCAGCATGCAGCGCCCCCTTGGGAAAG
CTTTAGGCACCAGCCTGCAACCCATTGAGCAGCCACGTAGGCTCGACCCAGCAAAGCCACAGGCACGGGGCTAC
CTGAGGCCTTGGGGGCCAATCCCTGCTCCAGTGTGTCCGTGAGGCAGCACACGAAGTCAAAGAGATTATCTCTT
CCCACAGATACCTTTTCTCTCCCATGACCCTTTAACAGCATCTGCTTCATTCCCCTCACCTTCCCAGGCTGATCT
GAGGTAACTTTGAAGTAAATAAAAGCTGTGTTTGAGCATC

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FIGURE 46

CCTCTCGGAGCTGGAAATGCAGCTATTGAGATCTTCGAATGCTGCGGAGCTGGAGGCGGAGGCAGCTGGGGAGGT
CCGAGCGATGTGACCAGGCCGCCATCGCTCGTCTCTTCTCTCTCCTGCCGCCCTCCTGTGTGCGAAAATAACTTTT
TTAGTCTAAAGAAAGAAAGACAAAAGTAGTCGTCCGCCCCCTCACGCCCTCTCTTCTCTCAGCCTTCCGCCCGGT
GAGGAAGCCCCGGGTGGCTGCTCCGCCGTGCGGGCCGCGCCGCCGAGCCCCAGCGCCCCGGGGCCGCCCGCCGACG
CCGCCCCCATGCATCCCTTCTACACCGGGCCGCCACCATGATAGGCGAGATCGCCGCCGCCGTGTCTTCATCT
CCAAGTTTCTCCGCACCAAGGGGCTGACGAGCGAGCGACAGCTGCAGACCTTCAGCCAGAGCCTGCAGGAGCTGC
TGGCAGAACATTATAAACATCACTGGTTCCCAGAAAAGCCATGCAAGGGATCGGGTTACCGTTGTATTGCGATCA
ACCATAAAATGGATCCTCTGATTGGACAGGCAGCACAGCGGATTGGACTGAGCAGTCAGGAGCTGTTCAGGCTTC
TCCCAAGTGAATCACACTCTGGGTTGACCCCTATGAAGTGTCTACAGAATTGGAGAGGATGGCTCCATCTGTG
TGCTGTATGAAGCCTCACCAGCAGGAGGTAGCACTCAAAACAGCACCAACGTGCAAATGGTAGACAGCCGAATCA
GCTGTAAGGAGGAACTTCTCTTGGGCAGAACGAGCCCTTCCAAAAACTACAATATGATGACTGTATCAGGTTAAG
ATATAGTCTGTGGATGGATCATCTGATGATGATCCATAAAATTTGATTTTGGCTTTGGGTGGGCTCCTCTTGGGGA
TGGATTATGGAATTTAAACCATGTACAGCTGTGAAGATCTGGCACAAAGATAGAATGGTAAAAAAAAAAAAAAT
TTTAAGTGACAGTGCCATAGTTTGGACAGTACCTTTCAATGATTAATTTTAATAGCCTGTGAGTCCAAGTAAATG
ATCACTTTATTTGCTAGGGAGGGAAGTCCTAGGGTGGTTTCAGTTTCTCCAGACATACCTAAATTTTACATCA
ATCCTTTTAAAGAAAATCTGTATTTCAAAGAATCTTTCTCTGCAGTAAATCTCGCAGGGGAATTTGCACTATTAC
ACTTGAAAGTTGTTATTGTTAACCTTTTCGGCAGCTTTTAATAGGAAAGTTAAACGTTTTAAACATGGTAGTACT
GGAAATTTTACAAGACTTTTACCTAGCACTTAAATATGTATAAATGTACATAAAGACAACTAGTAAGCATGACC
TGGGGAAATGGTCAGACCTTGTATTGTGTTTTTGGCCTTGAAAGTAGCAAGTGACCAGAATCTGCCATGGCAACA
GGCTTTAAAAAGACCCTTAAAAAGACACTGTCTCAACTGTGGTGTTAGCACCAGCCAGCTCTCTGTACATTTGC
TAGCTTGTAGTTTTCTAAGACTGAGTAAACTTCTTATTTTTAGAAAGTGGAGGTCTGGTTTGTAACCTTCTTGT
ACTTAATTGGGTAAAGTCTTTTCCACAAACCACCATCTATTTTGTGAACCTTGTTAGTCATCTTTATTTGGTA
AATTATGAAGTGGTGTAATTTGTACAGTTCATGTATATTGATTGTGGCAAAGTTGTACAGATTTCTATATTTTG
GATGAGAAATTTTCTTCTCTATAATAAATCGTTTCTTATCTTGGCATTTTAAAC

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FIGURE 47

MHPFYTRAATMIGEIAAAVSFISKFLRTKGLTSERQLQTFSQSLQELLAEHYKHHWFPEKPCKGSGYRCIRINHK
MDPLIGQAAQRIGLSSQELFRLLPSELTWVDPYEVSYRIGEDGSICVLYEASPAGGSTQNSTNVQMVDSTRISK
EELLGRTSPSKNYNMMTVSG

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FIGURE 48

GGCACGAGGACCGACCGCATTGCGGCTTGGTTTTCTACCCAGTGTCATGTGGCAGGAGCGGTGAGATCACTGCCT
CACGGCGATCCTGGACTGACGGTCACGACTGCCTACCCTCTAACCCTGTTCTGAGCTGCCCTTGCCACACACC
CCAAACCTGTGTGCAGGATCCGCCTCCATGGAGCTACAGCCTCCTGAAGCCTCGATCGCCGTCGTGTCGATTCCG
CGCCAGTTGCCTGGCTCACATTTCGGAGGCTGGTGTCCAGGGTCTCAGCGCGGGGGACGACTCAGAGTTGGGGTCT
CACTGTGTTGCCCAGACTGGTCTCGAACTCTTGGCCTCAGGTGATCCTCTTCCCTCAGCTTCCAGAATGCCGAG
ATGATAGAGACGGGGTCTGACTGTGTTACCCAGGCTGGTCTTCAACTCTTGGCCTCAAGTGATCCTCCTGCCTTA
GCTTCCAAGAATGCTGAGGTTACAGGCACCATGAGCCAGGACACCGAGGTGGATATGAAGGAGGTGGAGCTGAAT
GAGTTAGAGCCCCGAGAAGCAGCCGATGAACGCGGCGTCTGGGGCGGCCATGTCCCTGGCGGGAGCCGAGAAGAAT
GGTCTGGTGAAGATCAAGGTGGCGGAAGACGAGGCGGAGGCGGCAGCCGCGGCTAAGTTCACGGGCCTGTCCAAG
GAGGAGCTGCTGAAGGTGGCAGGCAGCCCCGGCTGGGTACGCACCCGCTGGGCACTGCTGCTGCTCTTCTGGCTC
GGCTGGCTCGGCATGCTTGCTGGTGCCGTGGTCATAATCGTGCGAGCGCGCTTGTGCGGAGCTACCGGCGCAG
AAGTGGTGGCACACGGGCGCCCTCTACCGCATCGGCGACCTTCAGGCCTTCCAGGGCCACGGCGGGCAACCTG
GCGGGTCTGAAGGGGCGTCTCGATTACCTGAGCTCTCTGAAGGTGAAGGGCCTTGTGCTGGGTCCAATTACAAG
AACCAGAAGGATGATGTCGCTCAGACTGACTTGCTGCAGATCGACCCCAATTTTGGCTCCAAGGAAGATTTTGAC
AGTCTCTTGCAATCGGCTAAAAAAGAGCATCCGTGTCAATTCTGGACCTTACTCCCAACTACCGGGGTGAGAAC
TCGTGGTTCTCCACTCAGGTTGACACTGTGGCCACCAAGGTGAAGGATGCTCTGGAGTTTTGGCTGCAAGCTGGC
GTGGATGGGTTCAGGTTTCGGGACATAGAGAATCTGAAGGATGCATCCTCATTCTTGGCTGAGTGGCAAAATATC
ACCAAGGGCTTCAGTGAAGACAGGCTCTTGATTGCGGGGACTAACTCCTCCGACCTTCAGCAGATCCTGAGCCTA
CTCGAATCCAACAAAGACTTGCTGTTGACTAGCTCATACCTGTCTGATTCTGGTTCTACTGGGGAGCATACAAAA
TCCCTAGTCACACAGTATTTGAATGCCACTGGCAATCGCTGGTGCAGCTGGAGTTTGTCTCAGGCAAGGCTCCTG
ACTTCTTCTTGCCGGCTCAACTTCTCCGACTCTACCAGCTGATGCTCTTACCCTGCCAGGGACCCCTGTTTTT
AGCTACGGGGATGAGATTGGCCTGGATGCAGCTGCCCTTCTTGGACAGCCTATGGAGGCTCCAGTCATGCTGTGG
GATGAGTCCAGCTTCCCTGACATCCCAGGGGCTGTAAGTGCCAACATGACTGTGAAGGGCCAGAGTGAAGACCT
GGCTCCCTCCTTTCTTGTTCGGCGGCTGAGTGACCAGCGGAGTAAGGAGCGCTCCCTACTGCATGGGGACTTC
CACGCGTTCTCCGCTGGGCCTGGACTCTTCTCCTATATCCGCCACTGGGACCAGAATGAGCGTTTTCTGGTAGTG
CTTAACTTTGGGGATGTGGGCCTCTCGGCTGGACTGCAGGCCTCCGACCTGCCTGCCAGCGCCAGCCTGCCAGCC
AAGGCTGACCTCCTGCTCAGCACCCAGCCAGGCCGTGAGGAGGGCTCCCTCTTGAGCTGGAACGCCTGAAACTG
GAGCCTCACGAAGGGCTGCTGCTCCGCTTCCCTACGCGGCCTGACTTCAGCCTGACATGGACCCACTACCCTTC
TCCTTTCTTCCCAGGCCCTTGGCTTCTGATTTTTCTCTTTTTTAAAAACAAACAAACAACTGTTGCAAAAAA
AAAAAAAAAAAA

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FIGURE 49

MSQDTEVDMKEVELNELEPEKQPMNAASGAAMSLAGAENGLVKIKVAEDEAEAAAAAKFTGLSKEELLKVAGSP
GWVTRWALLLLFWLGWLGMLAGAVVIIVRAPRCRELPAQKWWHTGALYRIGDLQAFQGHGAGNLAGLKGRLDYL
SSLKVKGLVLGPIHKNQKDDVAQTDLLQIDPNFGSKEDFDSLLQSAKKKSIRVILDLTNPYRGENSEWFSTQVDTV
ATKVKDALEFWLQAGVDGFQVRDIENLKDASSFLAEWQNITKGFSEDRLLIAGTNSSDLQQILSLESNKDLLLLT
SSYLSDSGSTGEHTKSLVTQYLNATGNRWCSWSLSQARLLTSFLPAQLLRLYQLMLFTLPGTPVFSYGDEIGLDA
AALPGQPMEAPVMLWDESSFPDIPGAVSANMTVKGQSEDPGSLLSLFRRLSDQRSKERSLLHGDFHAFSAGPGLF
SYIRHWDQNERFLVVLNFGDVGLSAGLQASDLPASASLPKADLLLSTQPGREEGSPLELERLKLEPHEGLLLRF
PYAA

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FIGURE 50

GTCCGTACTGCAGAGCCGCTGCCGGAGGGTCGTTTTAAAGGGCCGCGTTGCCGCCCCCTCGGCCCCGCC**ATG**CTGC
TATCCGTGCCGCTGCTGCTCGGCCCTCCTCGGCCTGGCCGTGCCCGAGCCCCGCGTCTACTTCAAGGAGCAGTTTC
TGGACGGAGACGGGTGGACTTCCCGCTGGATCGAATCCAAACACAAGTCAGATTTTGGCAAATTCGTTCTCAGTT
CCGGCAAGTTCTACGGTGACGAGGAGAAAGATAAAGGTTTGCAGACAAGCCAGGATGCACGCTTTTATGCTCTGT
CGGCCAGTTTCGAGCCTTTCAGCAACAAAGGCCAGACGCTGGTGGTGAGTTTACGGTGAAACATGAGCAGAACA
TCGACTGTGGGGGCGGCTATGTGAAGCTGTTTCTAATAGTTTGGACCAGACAGACATGCACGGAGACTCAGAAT
ACAACATCATGTTTGGTCCCGACATCTGTGGCCCTGGCACCAAGAAGGTTTCATGTCATCTTCAACTACAAGGGCA
AGAACGTGCTGATCAACAAGGACATCCGTTGCAAGGATGATGAGTTTACACACCTGTACACACTGATTGTGCGGC
CAGACAACACCTATGAGGTGAAGATTGACAACAGCCAGGTGGAGTCCGGCTCCTTGGAAAGACGATTGGGACTTCC
TGCCACCCAAGAAGATAAAGGATCCTGATGCTTCAAACCGGAAGACTGGGATGAGCGGGCCAAGATCGATGATC
CCACAGACTCCAAGCCTGAGGACTGGGACAAGCCCCGAGCATATCCCTGACCCTGATGCTAAGAAGCCCCGAGGACT
GGGATGAAGAGATGGACGGAGAGTGGGAACCCCCAGTGATTTCAGAACCTGAGTACAAGGGTGAGTGGAAGCCCC
GGCAGATCGACAACCCAGATTACAAGGGCACTTGGATCCACCCAGAAAATTGACAACCCCGAGTATTCTCCCGATC
CCAGTATCTATGCCTATGATAACTTTGGCGTGCTGGGCCTGGACCTCTGGCAGGTCAAGTCTGGCACCATCTTTG
ACAACCTTCCTCATCACCAACGATGAGGCATACGCTGAGGAGTTTGGCAACGAGACGTGGGGCGTAACAAAGGCAG
CAGAGAAACAAATGAAGGACAAACAGGACGAGGAGCAGAGGCTTAAGGAGGAGGAAGAAGACAAGAAACGCAAAG
AGGAGGAGGAGGCAGAGGACAAGGAGGATGATGAGGACAAAGATGAGGATGAGGAGGATGAGGAGGACAAGGAGG
AAGATGAGGAGGAAGATGTCCCCGGCCAGGCCAAGGACGAGCTG**TAG**AGAGGCCTGCCTCCAGGGCTGGACTGAG
GCCTGAGCGCTCCTGCCGCAGAGCTTGCCGCGCCAAATAATGTCTCTGTGAGACTCGAGAACTTTTATTTTTTTC
CAGGCTGGTTTCGGATTGTTGGGTGGATTTTGGTTTTTGTTCCTCCTCCACTCTCCCCACCCCTCCCCGCCCTT
TTTTTTTTTTTTTTTAAACTGGTATTTTATCCTTTGATTCTCCTTCAGCCCTCACCCCTGGTTCTCATCTTTCTT
GATCAACATCTTTTCTTGCTCTGTGCCCTTCTCTCATCTCTTAGCTCCCCTCCAACCTGGGGGGCAGTGGTGT
GGAGAAGCCACAGGCCTGAGATTTTATCTGCTCTCCTTCTGAGCCAGAGGAGGGCAGCAGAAGGGGGTGGTG
TCTCAACCCCCCAGCACTGAGGAAGAACGGGGCTCTTCTCATTTTACCCCTCCCTTTCTCCCTGCCCCAGGA
CTGGGCCACTTCTGGGTGGGGCAGTGGGTCCAGATTGGCTCACACTGAGAATGTAAGAACTACAAACAAATTT
CTATTAAATTAAATTTTGTGTCTC

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FIGURE 51

MLLSVPLLLGLLGLAVAEPVYFKEQFLDGDGWTSRWIESKHKSDFGKFVLSSGKFYGDDEEKDKGLQTSQDARFY
ALSASFEPFSNKGQTLVVQFTVKHEQNIDCGGGYVKLFPNSLDQTMHGDSEYNIMFGPDICGPGTKKVHVIFNY
KGKNVLINKDIRCKDDEFTHLYTLIVRPDNTYEVKIDNSQVESGSLEDDWDFLPPKKIKDPDASKPEDWDERAKI
DDPTDSKPEDWDKPEHIPDPDAKKPEDWDEEMDGEWEPPVIQNPEYKGEWKPRQIDNPDYKGTWIHPEIDNPEYS
PDPSIYAYDNFGVLGLDLWQVKSGTIFDNFLITNDEAYAEFNGNETWGVTKAAEKQMKDKQDEEQRLKEEEEDKK
RKEEEEAEDKEDDEKDEDEDEEDKEEDEEEDVPGQAKDEL

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FIGURE 52A

AGAGCGAGCAGGGGAGAGCGAGACCAGTTTTTAAGGGGAGGACCGGTGCGAGTGAGGCAGCCCCGAGGCTCTGCTC
GCCCACCACCCAATCCTCGCCTCCCTTCTGCTCCACCTTCTCTCTGCCCCTACCTCTCCCCGAAAACCCCTT
ATTTAGCCAAAGGAAGGAGGTCAGGGGAACGCTCTCCCTCCCTTCCAAAAACAAAAACAGAAAAACCCCTTTT
CCAGGCCGGGAAAGCAGGAGGGAGAGGGGCCGCCGGCTGGCC**ATGG**AGCTGCTGTGCCACGAGGTGGACCCGG
TCCGCAGGGCCGTGCGGGACCGCAACCTGCTCCGAGACGACCGCTCCTGCAGAACCTGCTCACCATCGAGGAGC
GCTACCTTCCGCAGTGCTCCTACTTCAAGTGCCTGCAGAAGGACATCCAACCTACATGCGCAGAATGGTGGCCA
CCTGGATGCTGGAGGTCTGTGAGGAACAGAAGTGCAGAAGAAGAGGTCTTCCCTCTGGCCATGAATTACCTGGACC
GTTTCTTGGCTGGGGTCCCGACTCCGAAGTCCCATCTGCAACTCCTGGGTGCTGTCTGCATGTTCTTGGCCTCCA
AACTCAAAGAGACCAGCCCGCTGACCGCGGAGAAGCTGTGCATTTACACCGACAACCTCCATCAAGCCTCAGGAGC
TGCTGGAGTGGGAACCTGGTGGTGTGCGGGAAGTTGAAGTGGAACTGGCAGCTGTCACTCCTCATGACTTCATTG
AGCACATCTTGCGCAAGCTGCCCCAGCAGCGGGAGAAGCTGTCTCTGATCCGCAAGCATGCTCAGACCTTCATTG
CTCTGTGTGCCACCGACTTTAAGTTTGCCATGTACCCACCGTCGATGATCGCAACTGGAAAGTGTGGGAGCAGCCA
TCTGTGGGCTCCAGCAGGATGAGGAAGTGAGCTCGCTCACTTGTGATGCCCTGACTGAGCTGCTGGCTAAGATCA
CCAACACAGACGTGGATTGTCTCAAAGCTTGCCAGGAGCAGATTGAGGCGGTGCTCCTCAATAGCCTGCAGCAGT
ACCGTCAGGACCAACGTGACGGATCCAAGTCCGAGGATGAAGTGGACCAAGCCAGCACCCCTACAGACGTGCGGG
ATATCGACCTG**TGAG**AGGATGCCAGTTGGGCCGAAAGAGAGAGACGCGTCCATAATCTGGTCTCTTCTTTCTTG
TTGTTTTTGTCTTTGTGTTTTAGGGTGAAACTTAAAAAAAATTCTGCCCCACCTAGATCATATTTAAAGAT
CTTTTAGAAGTGAGAGAAAAAGGTCTACGAAAACGGAATAATAAAAAGCATTGGTGCCTATTTGAAGTACAGC
ATAAGGGAATCCCTTGATATGCGAACAGTTATTGTTTGATTATGTAAAAGTAATAGTAAAATGCTTACAGGAAA
ACCTGCAGAGTAGTTAGAGAATATGTATGCCTGCAATATGGGAACAAATTAGAGGAGACTTTTTTTTTTTCATGTT
ATGAGCTAGCACATACACCCCTTGATGATAATTTCAAGGAACTGTGTACGCCATTTATGGCATGATTAGATTG
CAAAGCAATGAACCTCAAGAAGGAATTGAAATAAGGAGGGACATGATGGGGAAGGAGTACAAAACAATCTCTCAAC
ATGATTGAACCATTTGGGATGGAGAAGCACCTTTGCTCTCAGCCACCTGTTACTAAGTCAGGAGTGTAGTTGGAT
CTCTACATTAATGTCTCTTGCTGTCTACAGTAGCTGCTACCTAAAAAAGATGTTTTATTTTGGCAGTTGGACA
CAGGTGATTGGCTCCTGGGTTTCATGTTCTGTGACATCCTGCTTCTTCTTCCAAATGCAGTTTCATTGCAGACACC
ACCATATTGCTATCTAATGGGGAAATGTAGCTATGGGCCATAACCAAAACTCACATGAAACGGAGGCAGATGGAG
ACCAAGGGTGGGATCCAGAATGGAGTCTTTTCTGTTATTGTATTTAAAGGGTAATGTGGCCTTGGCATTTCCTC
TTAGAAAAAACTAATTTTTTGGTGCTGATTGGCATGTCTGGTTACAGTTTAGCATTGTTATAAACCATTCATT
CGAAAAGCACTTTGAAAAATTGTTCCCGAGCGATAGATGGGATGGTTTATGCAAGTCATGCTGAATACTCCTCCC
CTCTTCTCTTTTGGCCCCCTCCCTTCCCTGCCCCAGTCTGGGTTACTCTTCGCTTCTGGTATCTGGCGTTCTTTGG
TACACAGTTCTGGTGTTTCTTACCAGGACTCAAGAGACACCCCTTCCCTGCTGACATTCCCATCACAACATTCTCA
GACAAGCCTGTAAACTAAAATCTGTTACCATCTGATGGCACAGAAGGATCTTAATTCCCATCTCTATACTTCTC
CTTTGGACATGGAAAGAAAAGTTATTGCTGGTGCAAAGATAGATGGCTGAACATCAGGGTGTGGCATTTTGTTCC
CTTTTCCGTTTTTTTTTTTTTTTATTGTTGTTGTTAATTTTATTGCAAAGTTGTATTACGCGTACTTGAATTTTC
TTCCTCTCCACTTCTTAGAGGCATTCAAGTTAGCAAAGAGGTTGGAGCAACAACCTTTTTTTTTTTTTTGCACAA
TTGTAATTGACAGGTAATGAAGCTATTTGTTAAAATATTTGCCTTTTTTAAGTAAAAAAGAAAAATCAGAACAGGG
CTATTTGAAGAATTATTTTATACACAGATTCTGCCTTGTTTCATAGTATGAGGGTTGAAGACGGAAAACAATCTA
AGGGTCTCTCATTTTTTTTAAATTTGTTTTGTTTTCAGTTTGGTTTTTTTTTTTTTTTGGCGTGCTAAGAAGCTAAAG
TCATCCATCCTTATTCACGTTGACAGTACCTAGCTGTAATGTTTACAGAGTGTGCTGCTATTTTATAAACATTT
TTATAATATATTATTTTACTGCTTAAATTTCCAAGTCTGAAGTAGATGGTTGAGATATGAGTTCTTCGTACTGGA
AAAGCCCTTCCGTAGTTTGTCTTCTGTTAGCATATTTCATGGTTGTTTTTTTTTTTTTCTTTTTTGGTTTTTTGG
TTTTTTTTTTTTTCTCTGATCACATTCTTCAAAGACGGAGTATTCTTTACCTCAGGTTTACTGGACAAAATCAAT
AACTACAAAAGGCAATGATTCACGCTTTTGTCTTATAATACCTCACACCGTACAGTTTCTGCTTGGGAGCCCA
TTCGCATGAGGAATACAGAAGCAGTGTGAGCAGGGCTGACTCCCTCTCAGGTGGAAGGCAGGGCGGTCTCACTCC
CAGGGACCTTTTTGGTCATGGAGGCCATCGGGCTCCAGTTAGACCCTGGTATCCTCATCATGATGGAAAAATA
CATTGAACCAAGGGATCCTCCCTCCCTTCAAGGCAGACGTTTCAAGTACAAACATTTATGCGGTAGGCTCAGATGT
CGTAATTTGCACTTAGGTACCAGGTGTCAGGAAACAGACTAAAAGAATTCCACCAGGCTGTTTGGAGATCCTCA
TCTTGGAGCTTTTTCAAAGCGGGGCTTCATCTGCAAAGGGCCCTTTCATCTTGAAGTTTTTCCCTCCGTCTTT

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FIGURE 52B

CCCCTCCCCTGGCATGGACACCTTGTGTTTAGGATCATCTCTGCAGGTTTCCTAGGTCTGAATCTGCGAGTAGAT
GAACCTGCAGCAAGCAGCGTTTATGGTGCTTCCTTCTCCCTCCTCTGTCTCAAACCTGCGCAGGCAAGCACTATGC
AAGCCCAGGCCCTCTGCTGAGCGGTACTAAACGGTCGGGTTTTCAATCACACTGAATTGGCAGGATAAGAAAAAT
AGGTCAGATAAGTATGGGATGATAGTTGAAGGGAGGTGAAGAGGCTGCTTCTCTACAGAGGTGAAATTCAGATG
AGTCAGTCTCTTGGGAAGTGTGTTAGAAGGGTTCAGGACTTTGTGAGTTAGCATGACCCTAAAAATCTAGGGGA
TTTCTGGTGGGACAATGGGTGGTGAATTTTGAAGTTTTGGAGAGGGAAGTGGAGCAGCCAGCAAGTAAGCTAGCC
AGAGTTTTCTCAAGAGCCAGCTTTGCTCAGCACACTCTCCTGGGCCCCAAGGAGTCCCACGGAATGGGGAAAGTG
GGAACCTGGAGTTCTTGGGAATCTTGGAGCCTAAAGAGAAACCGAGGTGCAAATTCATTTCAATGGTGACTGACC
CTTGAGCTTAAACAGAAGCAGCAAATGAAAGAACCGGACAAATAAGGAAGGGCACAAGCCTACCCGACTCTATTT
ACAGTCTGTAACCTTTCCACTCTTCTGTAGTCCCGAGGCCCTGGGTCTTCTAGCTTTTCTCTTTCCCATCCTT
GGGGCCTTGTGTGATGATGGGTGTGGGGCTGCCGATGGGAAAGTCGGGGGTTGTTAGGCTTTTCTGCCTGCTCCT
GCTTAAACACAAGAAGGAATCCTGGATTTTGCCCTCTCCTTAGCTCTTAGTCTCTTTGGTAGGAGTTTGTTC
GAGGAGCTCTCCCCCTTGGATTTGAACTTGCTCTTTTTGTGTTGTTGTTCTTTCTCTTTTCTTTTCTTACCTCCC
ACTAAAGGGGTTCCAAATTATCCTGGTCTTTTTCTACCTTGTTGTGTTTCTATCTCGTCTTTACTTCCATCTGTT
TGTTTTTTTTCTCCATCAGTGGGGGCCGAGTTGTTCCCCCAGCCTGCCAAATTTTGATCCTTCCCCCTCTTTTGGCC
AAATCCTAGGGGGAAGAAATCCTAGTATGCCAAAAATATATGCTAAGCATAATTAAACTCCATGCGGGTCCATAA
CAGCCAAGAAGCCTGCAGGAGAAAGCCAAGGGCAGTTCCCTCCGCAGAACACCCCATGCGTGCTGAGAGGCGAGC
TCCTTGAAGAAGGGGCTGTTCTTCCAGGAGGCCTTATTTGAACTGCCTCAGGACCCCACTGGAGAGCACAGCAT
GCCTTACTACTGGGTATCCTTGGTCTATGTGCTCTGTACTGGAGGCTCTGTTCTGCCTCTTATCAGCCAGGTCA
GGGGCACACATGGCTTAAGTGACAAAGCCAGAGGAGAAGACAACCCTGACAGCATCACGCTGCATCCCATTGCTA
GCAGGATTGGCAACTCTTCAGACGGAGCTGCGCTTCCCTGCAGTCTAGCACCTCTAGGGCCTCTCCAGACTGTGC
CCTGGGAGCTCTGGGACTGAAAGGTTAAGAACATAAGGCAGGATCAGATGACTCTCTCCAAGAGGGCAGGGGAAT
TTTCTCTCCATGGGCCACAGGGGACAGGGCTGGGAGAAGAAATAGACTTGACCTTATGTATGTAAATAATTGA
TTTTCTAGTTCAAGAAGATAATATTGGTAGTGTGGGAATTGGAGGTAGGAAGGGGAGGAAGTCTGAGTAAGCCAG
TTGGCTTCTAAGCCAAAAGGATTCTCTTTGTTTATCTCTGAGACAGTCCAACCTTGAGAATAGCTTTAAAAGGG
AAATTAATGCTGAGATGATAAAGTCCCCCTAAGCCAACAAACCCTCTGTAGCTATAGAATGAGTGCAGGTTTCTA
TTGGTGTGGACTCAGAGCAATTTACAAGAGCTGTTTATGCAGCCATCCATTTGTGCAAAATAGGGTAAGAAGATT
CAAGAGGATATTTATTACTTCCTCATACCACATGGCTTTTGATGATTCTGGATTCTAAACAACCCAGAAATGGTCA
TTTCAGGCACAACGATACTACATTTCGTGTGTGTCTGCTTTTTAAACTTGGCTGGGCTATCAGACCCCTATTCTCGGC
TCAGGTTTTGAGAAGCCATCAGCAAATGTGTACGTGCATGCTGTAGCTGCAGCCTGCATCCCTTCGCTGCAGCC
TACTTTGGGGAAATAAAGTGCTTACTGACTGTAGCCATTACAGTATCCAATGTCTTTTGACAGGTGCCTGTCCT
TGAAAAACAAAGTTTCTATTTTTTATTTTTAATTGGTTTTAGTTCTTAACTGCTGGCCAACTCTTACATCCCCAGCA
AATCATCGGGCATTGGATTTTTTCCATTATGTTTCATCACCTTATATCATGTACCTCAGATCTCTCTCTCTC
CTCTCTCTCAGTTATATAGTTTCTTGTCTTGGACTTTTTTTTTCTTTTCTTTTCTTTTTTTTTTTTGGCTTAAAA
CAAGTGTGATGCCATATCAAGTCCATGTTATTCTCTCACAGTGTACTCTATAAGAGGTGTGGGTGTCTGTTGGT
CAGGATGTTAGAAAGTGCTGATAAGTAGCATGATCAGTGTATGCGAAAAGGTTTTTAGGAAGTATGGCAAAAATG
TTGTATTGGCTATGATGGTGACATGATATAGTCAGCTGCCTTTTAAAGAGTCTTATCTGTTTCAGTGTTAAGTGAT
TTAAAAAATAATAACCTGTTTTCTGACTAGTTTAAAGATGGATTTGAAAATGGTTTTGAATGCAATTAGGTTAT
GCTATTTGGACAATAAACTCACCTTGACCT

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FIGURE 53

MELLCHEVDPVRRAVRDRNLLRDDRVLQNLLTIEERYLPQCSYFKCVQKDIQPYMRRMVATWMLEVCEEQKCEE
VFPLAMNYLDRFLAGVPTPKSHLQLLGAVCMFLASKLKETSPLTAEKLCIYTDNSIKPQELLEWELVVLGKLKWN
LAAVTPHDFIEHILRKLPQQREKLSLIRKHAQTFIALCATDFKFAMYPPSMIATGSVGAAICGLQQDEEVSSLTC
DALTELLAKITNTDVEDCLKACQEQIEAVLLNSLQQYRQDQRDGSKSEDELDQASTPTDVRDIDL

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FIGURE 54A

AGAGCGAGCAGGGGAGAGCGAGACCAGTTTTAAAGGGAGGACCGGTGCGAGTGAGGCAGCCCCGAGGCTCTGCTC
GCCCACCACCCAATCCTCGCCTCCCTTCTGCTCCACCTTCTCTCTCTGCCCCTACCTCTCCCCGAAAACCCCTT
ATTTAGCCAAAGGAAGGAGGTGAGGGGAACGCTCTCCCTCCCTTCCAAAAAACAAAAACAGAAAAACCCCTTTT
CCAGGCCGGGGAAAGCAGGAGGGAGAGGGGCCGCCGGGCTGGCC**ATGG**AGCTGCTGTGCCACGAGGTGGACCCGG
TCCGCAGGGCCGTGCGGGACCGCAACCTGCTCCGAGACGACCGCTCCTGCAGAACCTGCTCACCATCGAGGAGC
GCTACCTTCCGCAGTGCTCCTACTTCAAGTGCCTGCAGAAGGACATCCAACCTACATGCGCAGAATGGTGGCCA
CCTGGATGCTGGAGGTCTGTGAGGAACAGAAGTGCAGAAGAAGAGGTCTTCCCTCTGGCCATGAATTACCTGGACC
GTTTCTTGGCTGGGGTCCCGACTCCGAAGTCCCATCTGCAACTCCTGGGTGCTGTCTGCATGTTCTGGCCTCCA
AACTCAAAGAGACCAGCCCGCTGACCGCGGAGAAGCTGTGCATTTACACCGACAACCTCCATCAAGCCTCAGGAGC
TGCTGGAGTGGAAGTGGTGGTGCTGGGGAAGTTGAAGTGGAACCTGGCAGCTGTCACTCCTCATGACTTCATTG
AGCACATCTTGCGCAAGCTGCCCCAGCAGCGGGAGAAGCTGTCTCTGATCCGCAAGCATGCTCAGACCTTCATTG
CTCTGTGTGCCACCGACTTTAAGTTTGCCATGTACCCACCGTCGATGATCGCAACTGGAAGTGTGGGAGCAGCCA
TCTGTGGGCTCCAGCAGGATGAGGAAGTGAGCTCGCTCACTTGTGATGCCCTGACTGAGCTGCTGGCTAAGATCA
CCAACACAGACGTGGATTGTCTCAAAGCTTGCCAGGAGCAGATTGAGGCGGTGCTCCTCAATAGCCTGCAGCAGT
ACCGTCAGGACCAACGTGACGGATCCAAGTCGGAGGATGAACTGGACCAAGCCAGCACCCCTACAGACGTGCGGG
ATATCGACCTG**TGA**AGGATGCCAGTTGGGCCGAAAGAGAGAGACGCGTCCATAATCTGGTCTCTTCTTTCTGG
TTGTTTTTGTCTTTGTGTTTTAGGGTGAAACTTAAAAAAAATTCTGCCCCACCTAGATCATATTTAAAGAT
CTTTTAGAAGTGAGAGAAAAAGGTCTACGAAAACGGAATAATAAAAAGCATTGGTGCCTATTTGAAGTACAGC
ATAAGGGAATCCCTTGATATGCGAACAGTTATTGTTTGATTATGTAAGTAATAGTAAATGCTTACAGGAAA
ACCTGCAGAGTAGTTAGAGAATATGTATGCCTGCAATATGGGAACAAATTAGAGGAGACTTTTTTTTTTTCATGTT
ATGAGCTAGCACATACACCCCTTGTAGTATAATTTCAAGGAAGTGTGTACGCCATTTATGGCATGATTAGATTG
CAAAGCAATGAACTCAAGAAGGAATTGAAATAAGGAGGGACATGATGGGGAAGGAGTACAAAACAATCTCTCAAC
ATGATTGAACCATTTGGGATGGAGAAGCACCTTTGCTCTCAGCCACCTGTTACTAAGTCAGGAGTGTAGTTGGAT
CTCTACATTAATGTCTCTTGCTGTCTACAGTAGCTGTACCTAAAAAAGATGTTTTATTTTGCCAGTTGGACA
CAGGTGATTGGCTCCTGGGTTTCATGTTCTGTGACATCCTGCTTCTTCTTCCAAATGCAGTTCATTGCAGACACC
ACCATATTGCTATCTAATGGGGAAATGTAGCTATGGGCCATAACCAAAACTCACATGAAACGGAGGCAGATGGAG
ACCAAGGGTGGGATCCAGAATGGAGTCTTTTCTGTTATTGTATTTAAAGGGTAATGTGGCCTTGGCATTCTTC
TTAGAAAAAACTAATTTTTTGGTGCTGATTGGCATGTCTGGTTACAGTTTAGCATTGTTATAAACCATTCATT
CGAAAAGCACTTTGAAAAATTGTTCCCGAGCGATAGATGGGATGGTTTATGCAAGTCATGCTGAATACTCCTCCC
CTCTTCTCTTTTGGCCCCCTCCCTTCCCTGCCCCAGTCTGGGTTACTCTTCGCTTCTGGTATCTGGCGTTCTTTGG
TACACAGTTCTGGTGTTCTTACCAGGACTCAAGAGACACCCCTTCCCTGCTGACATTCCTCATCACAACATTCTCA
GACAAGCCTGTAACTAAATCTGTTACCATTCTGATGGCACAGAAGGATCTTAATTCCCATCTCTATACTTCTC
CTTTGGACATGGAAAGAAAAGTTATTGCTGGTGCAAGATAGATGGCTGAACATCAGGGTGTGGCATTTTGTTCC
CTTTTCCGTTTTTTTTTTTTTATTGTTGTTGTTAATTTTATTGCAAAGTTGTATTACGCGTACTTGAATTTTTC
TTCTCTCCACTTCTTAGAGGCATTCAGTTAGCAAAGAGGTTGGAGCAACAACCTTTTTTTTTTTTTTGCACAA
TTGTAATTGACAGGTAATGAAGCTATTTGTTAAATATTTGCCTTTTTAAGTAAAAAAGAAAAATCAGAACAGGG
CTATTTGAAGAATTATTTTATACACAGATTCTGCCTTGTTTCATAGTATGAGGGTTGAAGACGGAAAAACAATCTA
AGGGTCTCTCATTTTTTTAATTTGTTTTGTTTTCAGTTTGGTTTTTTTTTTTTTTTGGCGCTGCTAAGAAGCTAAAG
TCATCCATCCTTATTCACGTTGACAGTACCTAGCTGTAATGTTTACAGAGTGTGCTGCTATTTTATAAACATTT
TTATAATATATTATTTTACTGCTTAAATTCGAAGTCTGAAGTAGATGGTTGAGATATGAGTTCTTCGTACTGGA
AAAGCCCTTCCGTAGTTTGTCTTCTGGTAGCATATTCATGGTTGTTTTTTTTTTTCTTTTTTGGTTTTTTGG
TTTTTTTTTTTTTCTCTGATCACATTCTTCAAAGACGGAGTATTCTTTACCTCAGGTTTACTGGACAAAATCAAT
AACTACAAAAGGCAATGATTCACGCTTTTGTCTTATAATACCTCACAAACCGTACAGTTTCTGCTTGGGAGCCCA
TTCGCATGAGGAATACAGAAGCAGTGTGAGCAGGGCTGACTCCCTCTCAGGTGGAAGGCAGGGCGGTCTCACTCC
CAGGGACCTTTTTGGTCATGGAGGCCATCGGGCTCCAGTTAGACCCTGGTATCCTCATCATGATGGAAAAATA
CATTGAACCAAGGGATCCTCCCTCCCTTCAAGGCAGACGTTTCAAGTACAAACATTTATGCGGTAGGCTCAGATGT
CGTAATTTGCACTTAGGTACCAGGTGTCAGGAAACAGACTAAAAAGAATTCCACCAGGCTGTTTGGAGATCCTCA
TCTTGGAGCTTTTTCAAAGCGGGGCTTCATCTGCAAAGGGCCCTTTCATCTTGAAGTTTTCCCTCCGTCTTT

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FIGURE 54B

CCCCCTCCCCTGGCATGGACACCTTGTGTTTAGGATCATCTCTGCAGGTTTCCTAGGTCTGAATCTGCGAGTAGAT
GAACCTGCAGCAAGCAGCGTTTATGGTGCTTCCTTCTCCCTCCTCTGTCTCAAACCTGCGCAGGCAAGCACTATGC
AAGCCCAGGCCCTCTGCTGAGCGGTACTAAACGGTCGGGTTTTCAATCACACTGAATTGGCAGGATAAGAAAAAT
AGGTCAGATAAGTATGGGATGATAGTTGAAGGGAGGTGAAGAGGCTGCTTCTCTACAGAGGTGAAATTCCAGATG
AGTCAGTCTCTTGGGAAGTGTGTTTAGAAGGGTTCAGGACTTTGTGAGTTAGCATGACCCTAAAATTCTAGGGGA
TTTCTGGTGGGACAATGGGTGGTGAATTTTGAAGTTTTGGAGAGGGAAGTGGAGCAGCCAGCAAGTAAGCTAGCC
AGAGTTTTCTCAAGAGCCAGCTTTGCTCAGCACACTCTCCTGGGCCCAAGGAGTCCCACGGAATGGGGAAAGTG
GGAACCCTGGAGTTCTTGGGAATCTTGGAGCCTAAAGAGAAACCGAGGTGCAAATTCATTCATGGTGACTGACC
CTTGAGCTTAAACAGAAGCAGCAAATGAAAGAACCGGACAAATAAGGAAGGGCACAAGCCTACCCGACTCTATTT
ACAGTCTGTAACCTTTCCACTCTTCCTGTAGTCCCGAGGCCCTGGGTCTTCTAGCTTTTCTCTTTCCCATCCTT
GGGGCCTTGTGTGATGATGGGTGTGGGGCTGCCGATGGGAAAGTCGGGGGTTGTTAGGCTTTTCTGCCTGCTCCT
GCTTAAACACAAGAAGGAATCCTGGATTTTGCCCTCTCCTTAGCTCTTAGTCTCTTTGGTAGGAGTTTTGTTCCA
GAGGAGCTCTCCCCCTTGATTTGAACTTGCTCTTTTTGTTGTTGTTGTTCTTTCTCTTCTTTTCTTACCTCCC
ACTAAAGGGGTTCCAAATTATCCTGGTCTTTTTCTACCTTGTTGTGTTTCTATCTCGTCTTTACTTCCATCTGTT
TGTTTTTTTTCTCCATCAGTGGGGGCCGAGTTGTTCCCCCAGCCTGCCAAATTTTGATCCTTCCCCTCTTTTGGCC
AAATCCTAGGGGGAAGAAATCCTAGTATGCCAAAAATATATGCTAAGCATAATTAAACTCCATGCGGTTCCATAA
CAGCCAAGAAGCCTGCAGGAGAAAGCCAAGGGCAGTTCCCTCCGCAGAACACCCCATGCGTGCTGAGAGGCGAGC
TCCTTGAAGAAGGGGCTGTTCTTCCAGGAGGCCTTATTTTGAAGTGCCTCAGGACCCCACTGGAGAGCACAGCAT
GCCTTACTACTGGGTATCCTTGGTCTATGTGCTCTGTACTGGAGGCTCTGTTCTGCCTCTTATCAGCCAGGTCA
GGGGCACACATGGCTTAAGTGACAAAGCCAGAGGAGAAGACAACCCTGACAGCATCACGCTGCATCCCATTGCTA
GCAGGATTGGCAACTCTTCAGACGGAGCTGCGCTTCCCTGCAGTCTAGCACCTCTAGGGCCTCTCCAGACTGTGC
CCTGGGAGCTCTGGGACTGAAAGGTTAAGAACATAAGGCAGGATCAGATGACTCTCTCCAAGAGGGCAGGGGAAT
TTTCTCTCCATGGGCCACAGGGGACAGGGCTGGGAGAAGAAATAGACTTGCACCTTATGTCATGTAAATAATTGA
TTTTCTAGTTCAAGAAGATAATATTGGTAGTGTGGGAATTGGAGGTAGGAAGGGGAGGAAGTCTGAGTAAGCCAG
TTGGCTTCTAAGCCAAAAGGATTCTCTTTGTTTATCTCTGAGACAGTCCAACCTTGAGAATAGCTTTAAAAGGG
AAATTAATGCTGAGATGATAAAGTCCCCCTTAAGCCAACAAACCCTCTGTAGCTATAGAATGAGTGCAGGTTTCTA
TTGGTGTGGACTCAGAGCAATTTACAAGAGCTGTTTATGCAGCCATCCATTTGTGCAAAATAGGGTAAGAAGATT
CAAGAGGATATTTATTACTTCTCATAACCACATGGCTTTTGATGATTCTGGATTCTAAACAACCCAGAATGGTCA
TTTCAGGCACAACGATACTACATTCTGTGTGTCTGCTTTTAAACTTGGCTGGGCTATCAGACCCCTATTCTCGGC
TCAGGTTTTGAGAAGCCATCAGCAAATGTGTACGTGCATGCTGTAGCTGCAGCCTGCATCCCTTCGCCTGCAGCC
TACTTTGGGGAAATAAAGTGCCTTACTGACTGTAGCCATTACAGTATCCAATGTCTTTTGACAGGTGCCTGTCTCT
TGAAAAACAAAGTTTCTATTTTTATTTTTAATTGGTTTAGTTCTTAACTGCTGGCCAACCTTACATCCCCAGCA
AATCATCGGGCATTGGATTTTTTCCATTATGTTTCATCACCTTATATCATGTACCTCAGATCTCTCTCTCTC
CTCTCTCTCAGTTATATAGTTTCTTGTCTTGGACTTTTTTTTTCTTTTCTTTTCTTTTTTTTTTTGCTTTAAAA
CAAGTGTGATGCCATATCAAGTCCATGTTATCTCTCACAGTGTACTCTATAAGAGGTGTGGGTGTCTGTTTGGT
CAGGATGTTAGAAAGTGCTGATAAGTAGCATGATCAGTGTATGCGAAAAGGTTTTTAGGAAGTATGGCAAAAATG
TTGTATTGGCTATGATGGTGACATGATATAGTCAGCTGCCTTTTAAAGAGTCTTATCTGTTTCAGTGTTAAGTGAT
TTAAAAAATAATAACCTGTTTTCTGACTAGTTTAAAGATGGATTGAAAATGGTTTTGAATGCAATTAGGTTAT
GCTATTTGGACAATAAACTCACCTTGACCT

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FIGURE 55

MELLCHEVDPVRRAVRDRNLLRDDRVLQNLLTIEERYLPQCSYFKCVQKDIQPYMRRMVATWMLEVCEEQKCEE
VFPLAMNYLDRFLAGVPTPKSHLQLLGAVCMFLASKLKETSPLTAEKLCIYTDNSIKPQELLEWELVVLGKLKWN
LAAVTPHDFIEHILRKLPQQREKLSLIRKHAQTFIALCATDFKFAMYPPSMIATGSVGAAICGLQQDEEVSSLTC
DALTELLAKITNTDCLKACQEQIEAVLLNSLQQYRQDQRDGSKSEDELDQASTPTDVRDIDL

AGACGAGCAGCAGGGGAGAGCGAGACACAGTTTTAAAGGGGAGGACCGGTGCGAGTAAGGCAGCCCGAGGGCTCTGCTC
 GCCCACCACCCAATCCTCGCCTCCCTTCTGCTCCACCTTCTCTCTCTGCCCCTACCTCTCCCCGAAAACCCCTT
 ATTTAGCCAAAGGAAGGAGGTCTAGGGGAACGCTCTCCCTCCCTTCCAAAAAACAAAAACAGAAAAACCCCTTTT
 CCAGGCCGGGGAAAGCAGGAGGGAGAGGGGCCCGCGGGCTGGCCATGGAGCTGCTGTGCCACGAGGTGGACCCGG
 TCCGCAGGGCCGTGCGGGACCGCAACCTGCTCCGAGACGACCGCGTCTGCGAGAACCTGCTCACCATCGAGGAGC
 GCTACCTTCCGCAGTGTCTTACTTCAAGTGCCTGCAGAAGGACATCCAACCTTACATGCGCAGAATGGTGGCCA
 CCTGGATGCTGGAGGTCTGTGAGGAACAGAAGTGCGAAGAAGAGGTCTTCCCTCTGGCCATGAATTACCTGGACC
 GTTCTTGGCTGGGGTCCCGACTCCGAAGTCCCATCTGCAACTCCTGGGTGCTGTCTGCATGTTTCTGGCCTCCA
 AACTCAAAGAGACCAGCCCGCTGACCGCGGAGAAGCTGTGCATTTACACCGACAACCTCATCAAGCCTCAGGAG
 TGCTGGAGTGGGAACCTGGTGGTGTCTGGGGAAAGTTGAAGTGGAAACCTGGCAGCTGTCACTCCTCATGACTTCATTG
 AGCACATCTTGCGCAAGCTGCCCCAGCAGCGGGAGAAGCTGTCTCTGATCCGCAAGCATGCTCAGACCTTCATTG
 CTCTGTGTGCCACCGACTTTAAGTTTGCCATGTACCCACCGTCGATGATCGCAACTGGAAGTGTGGGAGCAGCCA
 TCTGTGGGCTCCAGCAGGATGAGGAAGTGAGCTCGCTCACTTGTGATGCCCTGACTGAGCTGCTGGCTAAGATCA
 CCAACACAGACGTGGATTGTCTCAAAGCTTGCCAGGAGCAGATTGAGGCGGTGCTCCTCAATAGCCTGCAGCAGT
 ACCGTCAGGACCAACGTGACGGATCCAAGTCGGAGGATGAACTGGACCAAGCCAGCACCCCTACAGACGTGCGGG
 ATATCGACCTGTGAGGATGCCAGTTGGGGCCGAAAGAGAGAGACGCGTCCATAATCTGGTCTCTTCTTCTTTCTGG
 TTGTTTTTGTCTTTGTGTTTTAGGGTGAAACTTAAAAAAAAAATTTGCCCCCACCTAGATCATATTTAAAGAT
 CTTTATAGAAGTGAGAGAAAAAGGTCTACGAAAACGGAATAATAAAAAGCAATTTGGTGCCTATTTGAAGTACAGC
 ATAAGGGAATCCCTTGTATATGCGAACAGTTATTGTTTGATTATGTAAAAGTAATAGTAAAATGCTTACAGGAAA
 ACCTGCAGAGTAGTTAGAGAATATGTATGCCTGCAATATGGGAACAAATTAGAGGAGACTTTTTTTTTTCATGTTA
 TGAGCTAGCACATACACCCCTTGTAGTATAATTTCAAGGAACCTGTGTACGCCATTTATGGCATGATTAGATTGC
 AAAGCAATGAACTCAAGAAGGAATTGAAATAAGGAGGGACATGATGGGGAAGGAGTACAAAACAATCTCTCAACA
 TGATTGAACCATTTGGGATGGAGAAGCACCTTTGCTCTCAGCCACCTGTTACTAAGTCAGGAGTGTAGTTGGATC
 TCTACATTAATGTCTCTTGCTGTCTACAGTAGCTGCTACCTAAAAAAGATGTTTTATTTTGCCAGTTGGACAC
 AGGTGATTGGCTCCTGGGTTTTCATGTTCTGTGACATCTGCTTCTTCTTCCAAATGCAGTTCATTGCAGACACCA
 CCATATTGCTATCTAATGGGGAAATGTAGCTATGGGCCATAACCAAACTCACATGAAACGGAGGCAGATGGAGA
 CCAAGGTGGGATCCAGAATGGAGTCTTTTCTGTTATTGTATTTAAAAGGGTAATGTGGCCTTGGCATTCTTCT
 TAGAAAAAACTAATTTTTTGGTGTCTGATTGGCATGTCTGGTTCACAGTTTAGCATTGTTATAAACCATTCCATT
 GAAAAGCACTTTGAAAAATTGTTCCCGAGCGATAGATGGGATGGTTTTATGCAAGTCATGCTGAATACTCCTCCCC
 TCTTCTCTTTTGCCCCCTCCCTTCTGCCCCAGTCTGGGTTACTCTTCGCTTCTGGTATCTGGCGTTCTTTGGT
 ACACAGTTCTGGTGTTCCTACCAGGACTCAAGAGACACCCCTTCTGCTGACATTCCCATCACAAACATTCTCAG
 ACAAGCCTGTAAACTAAAATCTGTTACCATCTGATGGCACAGAAGGATCTTAATTCCTCATCTCTATACTTCTCCT
 TTGGACATGGAAAGAAAAGTTATTGCTGGTGCAAAGATAGATGGCTGAACATCAGGGTGTGGCATTGTTGTTCCCT
 TTTCCGTTTTTTTTTTTTTTTTTATTGTTGTTGTTAATTTTATTGCAAAGTTGTATTCAGCGTACTTGAATTTTTCTT
 CCTCTCCACTTCTTAGAGGCATTACAGTTAGCAAAGAGGTTGGAGCAACAACCTTTTTTTTTTTTTTTTTTGACAAT
 TGTAATTGACAGGTAATGAAGCTATTGTTTAAATATTTGCCTTTTTAAGTAAAAAAGAAAAATCAGAACAGGGC
 TATTTGAAGAATTATTTTATACACAGATTCTGCCTTGTTTCATAGTATGAGGGTTGAAGACGGAAAACAATCTAA
 GGGTCTCTCATTTTTTTTAATTTTGTGTTTGTTCAGTTTGGTTTTTTTTTTTTTTTTTGGCGCTGCTAAGAAGCTAAAGT
 CATCCATCCTTATTACAGTTGACAGTACCTAGCTGTAATGTTTCACAGAGTGTGCTGCTATTTTATAAACATTTT
 TATAATATATTTATTTTACTGCTTAAATTCCAAGTCTGAAAGTAGATGGTTGAGATATGAGTTCTTCGTACTGGAA
 AAGCCCTTCCGTAGTTTGTGTTTCTTCTGGTAGCATATTCATGGTTGTTTTTTTTTTTTTCTTTTTTGGTTTTTTGGT
 TTTTTTTTTTCTCTGATCACATTCTTCAAAGACGGAGTATCTTACCTCAGGTTTACTGGACAAAATCAATAA
 CTACAAAAGGCAATGATTACAGCTTTTGTGTTTATAATACCTCACAAACCGTACAGTTTCTGCTTGGGAGCCCAT
 CGCATGAGGAAATACAGAAGCAGTGTGAGCAGGGCTGACTCCCTCTCAGGTGGAAGGCAGGGCGGTCTCACTCCCA
 GGGACCTTTTTGGTCAITGGAGGCCATCGGGCTCCAGTTAGACCCTGGTATCCTCATCATGATGGAAAAAATACAA
 TTGAACCAAGGGATCCTCCCTCCCTTCAAAGGCAGACGTTTCAAGTACAAACATTTATGCGGTAGGCTCAGATGTG
 TAATTTGCACTTAGGTACCAGTGTCTAGGAAACAGACTAAAAAGAATTCCACCAGGCTGTTTGGAGATCCTCATC
 TTGGAGCTTTTTCAAAGCGGGGCTTCATCTGCAAAGGGCCCTTTTCTGTTGAAGTTTTTCCCTCCGCTTTTCTC

FIGURE 56B

CCTCCCCTGGCATGGACACCTTGTGTTTAGGATCATCTCTGCAGGTTTCTAGGTCTGAATCTGCGAGTAGATGA
ACCTGCAGCAAGCAGCGTTTATGGTGCTTCCTTCTCCCTCCTCTGTCTCAAACCTGCGCAGGCAAGCACTATGCAA
GCCCAGGCCCTCTGCTGAGCGTACTAAACGGTCGGGTTTTCAATCACACTGAATTGGCAGGATAAGAAAAATAG
GTCAGATAAGTATGGGATGATAGTTGAAGGGAGGTGAAGAGGCTGCTTCTACAGAGGTGAAATTCAGATGAG
TCAGTCTCTTGGGAAGTGTGTTTAGAAGGGTTCAGGACTTTGTGAGTTAGCATGACCCTAAAATTCTAGGGGATT
TCTGGTGGGACAATGGGTGCTGAATTTTGAAGTTTGGAGAGGGAAGTGGAGCAGCCAGCAAGTAAGCTAGCCAG
AGTTTTCTCAAGAGCCAGCTTGTCTCAGCACACTCTCCTGGGCCCAAGGAGTCCACGGAATGGGGAAAGTGGG
AACCCTGGAGTTCTTGGGAATCTTGGAGCCTAAAGAGAAACCGAGGTGCAAATTCATTCATGGTGACTGACCCT
TGAGCTTAAACAGAAGCAGCAAATGAAAGAACCGGACAAATAAGGAAGGGCACAAGCCTACCCGACTCTATTTAC
AGTCTGTAACTTTCCACTCTTCTGTAGTCCCGAGGCCCTGGGTCTTCTAGCTTTTCTCTTTCCCATCCTTGG
GGCCTTGTGTGATGATGGGTGTGGGGCTGCCGATGGGAAAGTGGGGGTTGTTAGGCTTTTCTGCCTGCTCCTGC
TTAAACACAAGAAGGAATCCTGGATTTTGCCCTCTCCTTAGCTCTTAGTCTCTTTGGTAGGAGTTTGTTCAGA
GGAGCTCTCCCCCTTGGATTTGAACTTGCTCTTTTTGTGTTGTTGTTCTTTCTCTTCTTTTCTTACCTCCAC
TAAAGGGGTTCCAAATTATCCTGGTCTTTTTCTACCTTGTTGTGTTTCTATCTCGTCTTTACTTCCATCTGTTTG
TTTTTTTCTCCATCAGTGGGGGCCGAGTTGTTCCCCCAGCCTGCCAAATTTTGATCCTTCCCCTCTTTTGGCCAA
ATCCTAGGGGGAAGAAATCCTAGTATGCCAAAATATATGCTAAGCATAATTAACTCCATGCGGGTCCATAACA
GCCAAGAAGCCTGCAGGAGAAAGCCAAGGGCAGTTCCCTCCGCAGAACACCCCATGCGTGCTGAGAGGCGAGCTC
CTTGAAGAAGGGGCTGTTCTTCCAGGAGGCCTTATTTTGAAGTGCCTCAGGACCCCACTGGAGAGCACAGCATGC
CTTACTACTGGGTATCCTTGGTCTATGTGCTCTGTACTGGAGGCTCTGTTCTGCCTCTTATCAGCCAGGTCAGG
GGCACACATGGCTTAAGTGACAAAGCCAGAGGAGAAGACAACCCTGACAGCATCACGCTGCATCCCATTGCTAGC
AGGATTGGCAACTCTTCAGACGGAGCTGCGCTTCCCTGCAGTCTAGCACCTCTAGGGCCTCTCCAGACTGTGCCC
TGGGAGCTCTGGGACTGAAAGGTTAAGAACATAAGGCAGGATCAGATGACTCTCTCCAAGAGGGCAGGGGAATTT
TCTCTCCATGGGCCACAGGGGACAGGGCTGGGAGAAGAAATAGACTTGCACCTTATGTCATGTAAATAATTGATT
TTCTAGTTCAAGAAGATAATATTGGTAGTGTGGGAATTGGAGGTAGGAAGGGGAGGAAGTCTGAGTAAGCCAGTT
GGCTTCTAAGCCAAAAGGATTCTTCTTTGTTTATCTCTGAGACAGTCCAACCTTGAGAATAGCTTTAAAGGGAA
ATTAATGCTGAGATGATAAAGTCCCCCTTAAGCCAACAAACCCTCTGTAGCTATAGAATGAGTGCAGGTTTCTATT
GGTGTGGACTCAGAGCAATTTACAAGAGCTGTTTATGCAGCCATCCATTTGTGCAAAAATAGGGTAAGAAGATTCA
AGAGGATATTTATTACTTCCCTCATACCACATGGCTTTTGATGATTCTGGATTCTAAACAACCCAGAATGGTCATT
TCAGGCACAACGATACTACATTCTGTGTGTCTGCTTTTAAACTTGGCTGGGCTATCAGACCCTATTCTCGGCTC
AGGTTTTGAGAAGCCATCAGCAAATGTGTACGTGCATGCTGTAGCTGCAGCCTGCATCCCTTCGCTGCAGCCTA
CTTTGGGGAAATAAAGTGCCTTACTGACTGTAGCCATTACAGTATCCAATGTCTTTTGACAGGTGCCTGTCTTG
AAAAACAAAGTTTCTATTTTTATTTTTAATTGGTTTAGTTCTTAACTGCTGGCCAACCTTACATCCCCAGCAAA
TCATCGGGCCATTGGATTTTTTCCATTATGTTTCATCACCTTATATCATGTACCTCAGATCTCTCTCTCTCCT
CTCTCTCAGTTATATAGTTTCTTGTCTTGGACTTTTTTTTTCTTTTCTTTTTTTTTTTTTTGCTTTAAACA
AGTGTGATGCCATATCAAGTCCATGTTATTCTCTCACAGTGTACTCTATAAGAGGTGTGGGTGTCTGTTTGGTCA
GGATGTTAGAAAGTGTGATAAGTAGCATGATCAGTGTATGCGAAAAGGTTTTTAGGAAGTATGGCAAAAATGTT
GTATTGGCTATGATGGTGACATGATATAGTCAGCTGCCTTTAAGAGGTCTTATCTGTTCAAGTGTAAAGTGATT
AAAAAATAATAACCTGTTTTCTGACTAGTTTAAAGATGGATTTGAAAATGGTTTTGAATGCAATTAGGTTATGC
TATTTGGACAATAAACTCACCTTGACCT

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FIGURE 57

MELLCHEVDPVRRAVRDRNLLRDDRVLQNLLTIEERYLPQCSYFKCVQKDIQPYMRRMVATWMLEVCEEQKCEE
VFPLAMNYLDRFLAGVPTPKSHLQLLGAVCMFLASKLKETSPLTAEKLCIYTDNSIKPQELLEWEIVVLGKLKWN
LAAVTPHDFIEHILRKLPQQREKLSLIRKHAQTFIALCATDFKFAMYPPSMIATGSGAAICGLQQDEEVSSLTC
DALTELLAKITNTDVEDCLKACQEQIEAVLLNSLQQYRQDQRDGSKEDELQASTPTDVRDIDL

[illegible]

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FIGURE 58B

ATGTTTAGCAAATGGCTCTGACAGGGTGGCCATGAGCAGATGAGACCAGCTCTTGCTTGGTTGGAAGCCACACTG
CAGTTTGCAGTTTAGCCTTTGGTGTCTCAGTGGCCTCTTGCTTATTCCATGCTTTTTCTATCCCATCCTCTCTCT
GTGCCCTCCTGCAATGGCAGCCTTGGCACAATGCCTGGGTGTCTCATCCTTGCTTTACTCTGGAAAGTGTGGGG
ATGGAGAGGATGGTGCATTTCCAGTGCTTCCTTACCTGTCAATAACAATGGTGGCCACCTGGGTCCCAGCACTTG
GCTGGTGGAGAGATTTTTTTCATTATGGAGCTAATAAAGGGTCCCTACGTTTTACATTGATTAATGAATTATCAC
CCAGACATGTGCAGATGAAATGTCAATATAAGAAAAATCAAGGTATTTGGGAAACATGGGCATAATCAGGTAGTT
TTGCTAAAAATTCCTCTTCCTTGGTCTACATAAAGAAGACATGGGTCTGTCATAGAATGGGGACATTAGACTGAAA
ACTGGGACAACCCCCCTTCCTTATTTTATAGAGACTAGGAGTTAAGGGGCCTGCCTAAGATTGCAGTGATAAAGAA
CTGAACCTTAAATCAGCTCCCCTAATGAAACCTGCTTTCCTTGATCTTTTAACTCAGTTCTGCATCCAACCT
TGAGAAGAAAAAAGCTTCTTTCCATATCAAGTACCATATGAGTTCATTTAACTGCACCTTGAGAAATGCATT
GCCAGAAAGCACCAGTAGCCTCCTATCTGCAAGCAGAGTAGTGCTCTGCTCTGGGGAGGGGTCAATTGGAACCAT
AATGCAGAGTGGGCCCCCTACTCCATTTCCCAGCAAAAGGCTCCAGCTGGAGGGATGGGTTGTGGGGCAACCTGG
TTCCTGCTAACTGCCAGATTGAATGIGTGGGCTAGAATGCCTGCGCATTTAGTTAACTGGGCTCAGCATGCTTG
TCCTCAAAATGTCCATCCTGGTCACAGCACACAAGATGGCTATTGGTCTGCTTTTACCCTACCCTGTACTATACA
TGAAATTCAGTTATTAACACACTCAAAGTGGTGGAGCTTGTTCCACCTAGGAAGGGGATTGTATATATGGCAG
GCTTCCCTGGTGCCGATGTAAAGGGCTACATTTGGGAACATTTGACTTCCTTGGGACTCTTAAGTGCATACTGAT
GGCATGAAGTAAAAGGGGCCTCAATGATGATAGGAAAATCAGTTCTTTTAAATTTCTTCAAGAAAATCCAGGCT
ATCACATAGTCTTTCTGTGTGACTTATTAGGAGATAGGAAGAGCATTGGGAACTTGCACAGCTAGCTATGCATC
TACATTTTGGTTTGGGGTTAGTTATGAAATGTTCTTAATATGACGTGTTCAATAACTTCACATAAACTTCCTGTT
CTCCAAAACCTCAAAGAGATAGAGTTAATGAGTTGTTGTTTTTTTTTAAATGGGGGTAGTTTTCTATCTGTCATG
GGCTCTAGCATCTACTCCGCTACCCAATTCTGTCTATCTCCAAGCTGAGTTTCCTCTCTGAGGCAGAGGCTGGAG
CAGTTCTTTTTTTCAGTTCTCATCCTCTCCATCCCAATCCAGTATATCAATCAACTCTAACTCGGAGACGTCTAGCT
GGCAATGTTTCTAAAACCTTTCAGTGGATTCTTTAGACATTGAAGCAAAACATTTTTTTCTAAGAATTGCTTCTCA
GATGATGATATCAAATGTATATGCTTTTGCAAGTTTGAAAAGTTCAAATTAACCCTTTTGACTAGGTAAGTCTT
TCTAAAAAACCATTTAAAGCTAACTGGGTCTTAGCATCCTCCTGTGTATGGAAGAGACAGGTGACCGCTCCAGGTT
GGGTGCTCACAGAACCCTTTTCTGACTCTCATGGAAGATGGTGGAAAGGAAAATAGACTGTCTCATCAACCCTCC
TGTGTCTCTGAAGCAATCTCAGTTTTTATTAACCACCTCTTCTGTGTTTCTGGTAGCTATTTAACCTGTATTTA
ATCTGTACTTCTATGCCAGCCTCAATTTTATTTGATTTTTTAAATATATTCTCTTCAACCAATGAAGTGTGTTGT
CAGTATGCCCCAAAGCTTGCTCTTTTGTGCTCCCTTTTGAATAACTTCTATCCAGAAAAAGAGATTATTTGGGA
CTTGAGATTTGCAGTGATACCAACTTATAGCAATGATGTACTTTAAGGGAACTACCCAACCTATGTTGTGATAGAA
GAAAGAGAAACCTTCACTTTGGCATTTTTTTAAATCACTGTTTATTTTCTGTTTGGCGCCAGGAAGCAGTGGG
AGGTGGTGGCAGATATGCTTTGCATATGGATTGTTATGTTTTTATTTGGGCAAGTTTAAATCATGGAAAACCTCAA
AAGAAGGGGGGAAATGGTCAGTTAAGCCAAAAGAACTTCTAAACAATGTATAGGTACACAGCAAAATTAAAC
AAATCCAACAATTTCTGAAGCTTAGTGTAATTGAGTGGTGGTGTATTCAATAAAATTATTTCCAAAAGTGT
CTCCTAAGAGTGCAGTTCCCATGAGTCACTTCTGAACCCATTGACCAAAGGTGGACAGAGACAATCCTGTAGAC
CTTGACATTGAGAAAGATGTGAGCTGCTTACTGATCATATATGCATACGTTTCTTTACAGCAGAGGAAACCATTG
TCCACAAAACCTGATGTTCTTTTGGGGTTTTATGTACAGACTTGTCCAATCATGTGTGTGGTTCCTGCGAGTTGCT
GATGACTCCGCATTGAAGCTCTCTGAGTTCTTTGATTTTAAAGTTGGGTTTATGGAATTTTTTCAAATGTTGGAAG
GCGTGTGGTTCTTCCTGCCCTCCCTCCCTTTTGGAAATATGAAAGCAAATGTTTAGAAGAATTCCTTTTGAAAA
GCTGTGTGCTGTTCCCTGTGAAACTGAGCAGGTGTGTGTTGGCGCGCTAAGTGCCACATGCTTGTGTGTAGAGGA
GGAGGTGGCCCTGCCGGCTCCGCGCTGCTGTGCCTGTGATCCCTACCTGCTCCCCGCTCCTGTTGCCAGCAGCAC
TCACTGCACTCCTTTGTCTATATACTCTGCATCACTGTCTATACTCACAACCTTCGTGAATAAAGTTGTGTGCTTTAT
TCGTC

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FIGURE 59

MFTEGEEMYLQGSTVWHPDCKQSTKTEEKLRPTRTSSSEIYSRPGSSIPGSPGHTIYAKVDNEILDYKDLAAIPK
VKAIYDIERPDLITYEPFYTSYDDKQERQSLGESPRTLSPTPSAEGYQDVRDRMIHRSTSQGSINSPVYSRHSY
TPTTSRSPQHFRPGNEPSSGRNSPLPYRPDSRPLTPTYAQAPKHFHVPDQGINIYRKPPYKQHAALAAQSKSS
EDI IKFSKFPAAPDPSETPEIETDHWPGPPSFAVIGPDMKRRSSGREEDDEELLRRRQLQEEQLMKLNSGLGQ
LILKEEMEKESRERSLLASRYDSPINSASHIPSSKTASLPGYGRNGLHRPVSTDFAQYNSYGDVSGGVRDYQTL
PDGHMPAMRMDRGVSMFNMLEPKIFPYEMLMVTNRGRNKILREVDRTLRERHLAPEVVFREIFGMSIQEFDRLPLW
RRNDMKKKAKLF

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FIGURE 60

GAAAGCTGTATTTGCTGCACGTGGAAATCTCCGTTATTTTCCAGCACCCAACAGTAGCGTAATGGGAGTAACGGA
CTTAACCTCATTTCTCTTTTCAGAGCATTAGCCTTCATATGCCCTTCCCTGCATGCTTCCCCAGGCCGTCAAGA
CTTGAGTTCTGCCTCGCTTCCCGCGCGGTGCGAGCCCTCAGCCCACTTAGGATAAATGCGACAGCTGAGGTACT
GAACATTGGTAAAAAATTATATGAGGGTAAAAACAAAGAAGTCTACGAATTGTTAGACAGTCCAGGAAAAGTCTT
CCTGCAGTCCAAGGACCAGATTACAGCAGGAAATGCAGCTAGAAAAAACACCTGGAAGGAAAAGCTGCAATCTC
AAATAAAATCACCAGTTGTATTTTTCAGTTATTACAGGAAGCAGGTATTAAACTGCCTTCACCAGAAAATGTGG
GGAGACAGCTTTTCATTGCACCGCAGTGTGAAATGATTCCAATTGAATGGGTTTGAGAGAAGATAGCAACTGGTTC
TTTTCTCAAAGAAATCCTGGTGTCAAGGAAGGATATAAGTTTTACCCACCTAAAGTGGAGTTGTTTTTCAAGGA
TGATGCCAATAATGACCCACAGTGGTCTGAGGAACAGCTGATTGCTGCAAAATTTTGCTTTGCTGGACTTCTTAT
AGGCCAGACTGAAGTGGATATCATGAGTCATGCTACACAGGCTATATTTGAAATACTGGAGAAATCCTGGTTGCC
CCAGAATTGTACACTGGTTGATATGAAGATTGAATTTGGTGTGATGTAAACCACCAAAGAAATTGTTCTTGCTGA
TGTTATTGACAATGATTCTTGAGACTCTGGCCATCAGGAGATCGAAGCCAAACAGAAAGACAAACAGTCTTATCG
GGACCTCAAAGAAGTAACTCCTGAAGGGCTCCAAATGGTAAAGAAAAACTTTGAGTGGGTTGCAGAGAGAGTAGA
GTTGCTTTTGAATCAGAAAGTCAGTGCAGGGTTGTAGTGTGATGGGCTCTACTTCTGATCTTGGTCACTGTGA
AAAAATCAAGAAGGCCCTGTGGAATTTTGGCATTCCATGTGAACCTTCGAGTAACATCTGCGCATAAAGGACCAGA
TGAAACTCTGAGGATTAAAGCTGAGTATGAAGGGGATGGCATTCTACTGTATTTGTGGCAGTGGCAGGCAGAAG
TAATGGTTTGGGACCAGTGTGTCTGGGAACACTGCATATCCAGTTATCAGCTGTCTCTCCCTCACACCAGACTG
GGGAGTTTCAGGATGTGTGCTTCTCTTCGACTACCCAGTGGTCTTGCTGTTCACCGTACTTTCTCCAGAAGG
ATCAGCTCAATTTGCTGCTCAGATATTTGGGTAAAGCAACCATTGGTATGGAGCAAACGCGAGCAAGCATT
GAACACATGGATTTCTTGAAGCAGGCTGACAAGAAAATCAGAGAATGTAATTTATAAGAAAGAAATGCCATTGAA
TTTTTTAGGGGAAAAACTACAAATTTCTAATTTAGCTGAAGGAAAATCAAGCAAGATGAAAAGGTAATTTTAAAT
TAGAGAACACAAATAAAATGTATTAGTGAATAAATGCTTCTCTAGATCCATATTAATAAACATGAGCATCTAACC
CCTCCTTTCTTAGGCTAGACACCAAGATATTTAGCCAGCCTTTATCATTCTCTACTTTATCCTTTTTCTCTTA
AGTATTGGTGGTCACTACTATTGAGTTTCTTCTTAACACTGATTAAATGATCTTAACTCCCTCAGCTAAACTG
GCATTACTGACTCCAGCTATATTTCTCCAGACTTGCATTTTTTTTTTTTTTTTGTAGACAGGGTCTCACTGTG
CCCAGGCTGGAGTGCAGTGGCGTGATCTCAGTTCAGTGTCTTCCCTCCTGGGCTCAAGCAGTCTCTCCACCT
CAGCCTCTCGACTAACAGGGACTATAATCTTGACAGCACCATGCCGAGCTAATTTTATTTTTTGTAGAGATGAGCT
CTCACTATGTACCCAGGTTCTGCTCAAACCTCTGAACCCTAGTAATTTCTCTATCTCAGCCTCCCAAAGTGCTA
GGGTTACAGACATGAGCCACTGTGCCTGTCTAGACTTGTACTTTCAACTGTCCATTTCTCCCTGTCTGTCCCATG
GGCACTCATGAAAAAACAGAATGCTCCCAACTTTATTCATCTTCCAAGCCTGTAGCTCTTGGTATACTCACTGTT
GCAAGTCAGAAGCTTGATTTTCATCATTGATGTTTTTCTCACGTTTCACATCTCACTCATACCAAGTCATGTTGG
TGTTAATTTCTGATTAACCTTGAATTTACCGTCTTCTCATCTCTGTACAAAAGCCTCAAGTGAGGGTCAAATT
CAACATTATCCTGATCTAGACAGCCCCATTCTCAATCCACCCTTTTCCAAGTTGATTGCCCAAGGACTTCTAAC
AATAAACTCTCTTTTGACCCACAGACTTCTTTGAAAATATACATGCTGTTGACCTCTCTGTAGAAAACCGCACA
CATAAACTTACCAACAGATTTTCATTGGTTCTTGGGTTCTCCGAAGCCTATCCATGGTTTATAGATTAAGAATT
GATGAGGTAGCTGGGCACAGTGGCTCACACCTACGATCACAGCACTTCGGGAGGCTGAAGCAAGCAGATCACTTG
AGGTCAGGAGTTTGAGACCAGCCTGGCCAACATGGTGAACCCCTGTCTCTACTAAAAATACAAAAAGTAGCCAGC
CGTGATGACAGGCACCTGTAATCCAGCTACTCGGGAGGCTGAGGCATGAGAATTGCTTGAACCCGGGAGGCGGA
GGTTGCAGTGAGCCTGGATCATGCCACTGCCTCAACCTGGGCAGCAGAGCAAGACTCTGTCTCAAAGGGGAA
AAAAAAATTTGCTGATGTGACCCATGAAGGGAACCTATTTTCTCTGTAATTTTGGACTGCCACACATTGGTACCT
TTAGTTCTCTGAAGGCCACGTTTTTATCATTAAAGACCTATTTGTTAGCTAGTAGAGCTTTATGTTTCGCTGTCCA
TGAAACCTTCTGTAACCACAGTGACTACAAGTAGTTCTTTCTCTATTGAATTATTAGGTCCAGAATAGAAGATGT
CATTGTACACTTTATTTCCCTCACACTGTGTTATGCTCTGATGTGCTATGCTTAGCTATCTGTCAGAGATTAGTA
AATTATAAACTCATGTGTACTACTTAAGTTTATATCTTATGCTAGTTTATAAGAACAAATTAAGGACTTAGAA
GATTAATAAAAAAAAAAAAAAAAAA

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FIGURE 61

MATAEVLNIGKKLYEGKTKEVYELLDSPGKVLLQSKDQITAGNAARKNHLEGKAAISNKITSCIFQLLQEAGIKT
AFTRKCGETAFAIAPQCEMPIEWVCRRIATGSFLKRNPVGVEGYKFYPPKVELFFKDDANNDPQWSEEQLIAAKF
CFAGLLIGQTEVDIMSHATQAIFEILEKSWLPQNCTLVDMKIEFGVDVTTKEIVLADVIDNDSWRLWPSGDRSQQ
KDKQSYRDLKEVTPEGLQMVKKNF EWVAERVELLLKSESQCRVVVLMGSTSDLGHCEKIKKACGNFGIPCELVRT
SAHKGPDETLRIKAIEYEGDGIPTVFVAVAGRSNGLGPVMSGNTAYPVISCPPLTPDWGVQDVWSSLRLPSGLGCS
TVLSPEGSAQFAAQIFGLSNHLVWSKLRASILNTWISLKQADKKIRECNL

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FIGURE 62

GAAAGCTGTATTTGCTGCACGTGGAAATCTCCGTTATTTTCCAGCACCCAACAGTAGCGTAATGGGAGTAACGGA
CTTAACCTCATTCTCTTTAGAGCATTAGCCTTCATATGCCCTTCCCTGCATGCTTCCCCCAGGCCGTCAAGA
CTTGAGTTCTGCCCTCGCTTCCCGGCGCGGTGCGAGCCCTCAGCCCACTTAGGATAATGGCGACAGCTGAGGTACT
GAACATTGGTAAAAAATTATATGAGGGTAAACAAAAGAAGTCTACGAATTGTTAGACAGTCCAGGAAAAGTCTCT
CCTGCAGTCCAAGGACCAGATTACAGCAGGAAATGCAGCTAGAAAAAACACCTGGAAGGAAAAGCTGCAATCTC
AAATAAAATCACCAGTTGTATTTTTCAGTTATTACAGGAAGCAGGTATTAAACTGCCTTCACCAGAAAATGTGG
GGAGACAGCTTTCATTGCACCGCAGTGTGAAATGATTCCAATTGAATGGGTTTGCAGAAGAATAGCAACTGGTTC
TTTTCTCAAAAGAAATCCTGGTGTCAAGGAAGGATATAAGTTTTACCCACCTAAAGTGGAGTTGTTTTTCAAGGA
TGATGCCAATAATGACCCACAGTGGTCTGAGGAACAGCTGATTGCTGCAAAATTTTGGCTTTGCTGGACTTCTTAT
AGGCCAGACTGAAGTGGATATCATGAGTCATGCTACACAGGCTATATTTGAAATACTGGAGAAATCCTGGTTGCC
CCAGAATTGTACACTGGTTGATATGAAGATTGAATTTGGTGTGATGTAAACCACCAAAGAAATTGTTCTTGCTGA
TGTTATTGACAATGATTCTGGAGACTCTGGCCATCAGGAGATCGAAGCCAAACAGAAAGACAAACAGTCTTATCG
GGACCTCAAAAGAAAGTAACTCCTGAAGGGCTCCAAATGGTAAAGAAAAACTTTGAGTGGGTTGCAGAGAGAGTAGA
GTTGCTTTTGAATCAGAAAGTCAGTGCAGGGTTGTAGTGTGATGGGCTCTACTTCTGATCTTGGTCACTGTGA
AAAAATCAAGAAGGCCTGTGGAATTTTGGCATTCCATGTGAACCTTCGAGTAACATCTGCGCATAAAGGACCAGA
TGAAACTCTGAGGATTAAAGCTGAGTATGAAGGGGATGGCATTCTACTGTATTTGTGGCAGTGGCAGGCAGAAG
TAATGGTTTGGGACCAGTGATGTCTGGGAACACTGCATATCCAGTTATCAGCTGTCTCTCCCTCACACCAGACTG
GGGAGTTCAAGGATGTGTGGTCTTCTCTTCGACTACCCAGTGGTCTTGGCTGTTCAACCGTACTTTCTCCAGAAGG
ATCAGCTCAATTTGCTGCTCAGATATTTGGGTAAAGCAACCATTGGTATGGAGCAAACCTGCGAGCAAGCATT
GAACACATGGATTTCCTGAAGCAGGCTGACAAGAAAATCAGAGAATGTAATTTAAGAAAGAATGCCATTGAA
TTTTTTAGGGGAAAAACTACAAATTTCTAATTTAGCTGAAGGAAAAATCAAGCAAGATGAAAGGTAATTTTAAAT
TAGAGAACACAAATAAAATGTATTAGTGAATAAATGCTTCTCTAGATCCATATTAATAAACATGAGCATCTAACC
CCTCCTTTCTTAGGCTAGACACCAAGATATTTAGCCAGCCTTTATCATTCCTCTTACTTTATCCTTTTTCTTTA
AGTATTGGTGGTCACTACTATTGAGTTTCTTCTTAACACTGATTAAATGATCTTAACTCCCTCAGCTAAACTG
GCATTACTGACTCCAGCTATATTTCTCCAGACTTGCATTTTTTTTTTTTTTTTGGAGACAGGGTCTCACTGTGCG
CCCAGGCTGGAGTGCAGTGGCGTGATCTCAGTTCACTGCTGCTTTCCCTCCTGGGCTCAAGCAGTTCTCCACCT
CAGCCTCTCGACTAACAGGGACTATAATCTTGACAGCACCATGCCGAGCTAATTTTATTTTTTGTAGAGATGAGCT
CTCACTATGTCAACCAGGTTCTGCTCAAACCTCTGAACCCTAGTAATTCCTATCTCAGCCTCCCAAAGTGCTA
GGGTTACAGACATGAGCCACTGTGCCTGTCTAGACTTGTACTTTCAACTGTCCATTTCTCCCTGTCTGTCCCATG
GGCACTCATGAAAAACAGAATGCTCCCAACTTTATTTCATCTTCCAAGCCTGTAGCTCTTGGTATACTCACTGTT
GCAAGTCAGAAGCTTGATTTCATCATTGATGTTTTTCTCAGCTTTCACATCTCACTCATACCAAGTCATGTTGG
TGTTAATTTCTGATTAAACCTTGAATTTACCGTCTTCTCATCCTCTGTACAAAAGCCTCAAGTGAGGGTCAAATT
CAACATTATCCTGATCTAGACAGCCCCATTCTCAATCCACCCTTTTCCAAGTTGATTGCCCAAGGACTTCTAAC
AATAAACTCTCTTTTGACCCACAGACTTCTTTGAAAATATACATGCTGTTGACCCTCTCTGTAGAAAACCGCACA
CATAAACTTACCAACAGATTTCAATTGGTTCTTGGGTTCTCCCGAAGCCTATCCATGGTTTATAGATTAAAGATT
GATGAGGTAGCTGGGCACAGTGGCTCACACCTACGATCACAGCACTTCGGGAGGCTGAAGCAAGCAGATCACTTG
AGGTCAGGAGTTTGGAGACCAGCCTGGCCAAACATGGTGAACCCCTGTCTCTACTAAAAATACAAAAGTAGCCAGC
CGTGATGACAGGCACCTGTAATCCCAGCTACTCGGGAGGCTGAGGCATGAGAATTGCTTGAACCCGGGAGGCGGA
GGTTGCAGTGAGCCTGGATCATGCCACTGCACTCCAACCTGGGCAGCAGAGCAAGACTCTGTCTCAAAGGGGAA
AAAAAAATTGCTGATGTGACCCATGAAGGGAACCTATTTTCTCGTAATTTTGGACTGCCACACATTGGTACCT
TTAGTTCTCTGAAGGCCACGTTTTTATCATTAAAGACCTATTTGTTAGCTAGTAGAGCTTTATGTTGCTGTCCA
TGAAACCTTCTGTAAACCACAGTGACTACAAGTAGTTCTTTCTCTATTGAATTATTAGGTCCAGAATAGAAGATGT
CATTGTACACTTTATTTCCCTCACACTGTGTTATGCTCTGATGTGCTATGCTTAGCTATCTGTCAGAGATTAGTA
AATTATAAAACTCATGTGTACTACTTAAGTTTATATCTTATGCTAGTTTATAAGAACAATTAAAGGACTTAGAA
GATTAAAAA

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FIGURE 63

MATAEVLNIGKKLYEGKTKEVYELLDSPGKVLLQSKDQITAGNAARKNHLEGKAAISNKITSCIFQLLQEAGIKT
AFTRKCGETAFIAPQCEMPIEWVCRRIATGSFLKRNPVKEGYKFYPPKVELFFKDDANNDPQWSEEQLIAAKF
CFAGLLIGQTEVDIMSHATQAIFEILEKSWLPQNCTLVDMKIEFGVDVTTKEIVLADVIDNDSWRLWPSGDRSQQ
KDKQSYRDLKEVTPEGLQMVKKNF EWVAERVELLLKSESQCRVVVLMSGSTSDLGHCEKIKKACGNFGIPCEL RVT
SAHKGPDETLRIKAEYEGDGIPTVFVAVAGRSNGLGPVMSGNTAYPVISCPPLTPDWGVQDVWSSLRLPSGLGCS
TVLSPEGSAQFAAQIFGLSNHLVWSKLRASILNTWISLKQADKKIRECNL

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FIGURE 64

TCGCTGCGAAGGACATTTGGGCTGTGTGTGCGACGCGGGTCGGAGGGGCAGTCGGGGGAACCGCGAAGAAGCCGA
GGAGCCCGGAGCCCCGCGTGACGCTCCTCTCTCAGTCCAAAAGCGGCTTTTGGTTCGGCGCAGAGAGACCCGGGG
GTCTAGCTTTTTCCTCGAAAAAGCGCCGCCCTGCCCTTGGCCCCGAGAACAGACAAAAGAGCACCGCAGGGCCGATCA
CGCTGGGGGCGCTGAGGCCGGCCATGGTCATGGAAGTGGGCACCCTGGACGCTGGAGGCCTGCGGGCGCTGCTGG
GGGAGCGAGCGGGCGCAATGCCTGTGTGCTGGACTGCCGCTCCTTCTTCGCTTTCAACGCCGGCCACATCGCCGGCT
CTGTCAACGTGCGCTTCAGCACCATCGTGCGGCGCCGGGCCAAGGGCGCCATGGGCCTGGAGCACATCGTGCCCA
ACGCCGAGCTCCGCGGCCGCTGTGTCGGCGCGCCTACCACGCCGTGGTGTGCTGGACGAGCGCAGCGCCGCC
TGGACGGCGCCAAGCGCGACGGCACCCCTGGCCCTGGCGGGCGCGCGCTCTGCCGCGAGGCGCGCGCCGCGCAAG
TCTTCTTCCTCAAAGGAGGATACGAAGCGTTTTTCGGCTTCTTGCCCGGAGCTGTGCAGCAAACAGTCGACCCCCA
TGGGGCTCAGCCTTCCCTGAGTACTAGCGTCCCTGACAGCGCGGAATCTGGGTGCAGTTCCTGCAGTACCCAC
TCTACGATCAGGGTGGCCCGGTGGAAATCCTGCCCTTTCTGTACCTGGGCAGTGCCTATCACGCTTCCCGCAAGG
ACATGCTGGATGCCTTGGGCATAACTGCCTTGATCAACGTCTCAGCCAATTGTCCCAACCATTTTGAGGGTCACT
ACCAGTACAAGAGCATCCCTGTGGAGGACAACCACAAGGCAGACATCAGCTCCTGGTTCAACGAGGCCATTGACT
TCATAGACTCCATCAAGAATGCTGGAGGAAGGGTGTGTTGTCCACTGCCAGGCAGGCATTTCGCCGTGAGCCACCA
TCTGCCCTTGCTTACCTTATGAGGACTAATCGAGTCAAGCTGGACGAGGCCCTTTGAGTTTGTGAAGCAGAGGCGAA
GCATCATCTCTCCCAACTTCAGCTTCATGGGCCAGCTGCTGCAGTTTGAGTCCAGGTGCTGGCTCCGCACGTGT
CGGCAGAGGCTGGGAGCCCCGCCATGGCTGTGCTCGACCGAGGCACCTCCACCACCACCGTGTTCAACTTCCCCG
TCTCCATCCCTGTCCACTCCACGAACAGTGCCTGAGCTACCTTCAGAGCCCCATTACGACCTCTCCAGCTGCTT
GAAAGGCCACGGGAGGTGAGGCTCTTCACATCCATTGGGACTCCATGCTCCTTGAGAGGAGAAATGCAATAACT
CTGGGAGGGGCTCGAGAGGGCTGGTCCTTATTTATTTAACTTCACCCGAGTTCCTCTGGGTTTCTAAGCAGTTAT
GGTGATGACTTAGCGTCAAGACATTTGCTGAACTCAGCACATTCGGGACCAATATATAGTGGGTACATCAAGTCC
ATCTGACAAAATGGGGCAGAAGAGAAAGGACTCAGTGTGTGATCCGGTTTCTTTTGCTCGCCCCGTGTTTTTGT
AGAATCTCTTCATGCTTGACATACCTACCAGTATTATTCCCGACGACACATATACATATGAGAATATACCTTATT
TATTTTTGTGTAGGTGTCTGCCCTCACAAATGTCATTGTCTACTCCTAGAAGAACCAAATACCTCAATTTTTGT
TTTGTAGTACTGTACTATCCTGTAAATATATCTTAAGCAGGTTTGTTCAGCACTGATGGAAAATACCAGTGTG
GGTTTTTTTTTAGTTGCCAACAGTTGTATGTTTGCTGATTATTTATGACCTGAAATAATATATTTCTTCTCTAA
GAAGACATTTTGTTACATAAGGATGACTTTTTTATACAATGGAATAAATTATGGCATTCTATTG

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FIGURE 65

MVMEVGTL DAGGLRALLGERAAQCLLLDCRSFFAFNAGHIAGSVNVRFSTIVRRRAKGAMGLEHIVPNAELRGRL
LAGAYHAVVLLDERSAALDGA KRDTLALAAGALCREARAAQVFFLKGGYEAFSASCPELCSKQSTPMGLSLPLS
TSVPDSAESGCSSCSTPLYDQGGPVEILPFLYLGSAYHASRKDMLDALGITALINVSANCPNHFEGHYQYKSIPV
EDNHKADISSWFNEAIDFIDSIKNAGGRV FVHCQAGISR SATICLAYLMRTNRVKLDEAFEFVKQRRSIISP NFS
FMGQLLQFESQVLAPHCSAEAGSPAMAVLDRGTSTTTVFNFVSI PVHSTNSALSYLQSPITTSPSC

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FIGURE 66

TGTCGGGGACGGTAACCGGGACCCGTGCTCTGCTCCTGTGCGCTTCGCCTCCTGAATCCCTAGCCAT**ATG**CGTGA
GTGCATCTCCATCCACGTTGGCCAGGCTGGTGTCCAGATTGGCAATGCCTGCTGGGAGCTCTACTGCCTGGAACA
CGGCATCCAGCCCGATGGCCAGATGCCAAGTGACAAGACCATTGGGGGAGGAGATGACTCCTTCAACACCTTCTT
CAGTGAGACGGGCGCTGGCAAGCACGTGCCCCGGGCTGTGTTTGTAGACTTGGAACCCACAGTCATTGATGAAGT
TCGCACTGGCACCTACCGCCAGCTCTTCCACCCTGAGCAGCTCATCACAGGCAAGGAAGATGCTGCCAATAACTA
TGCCCGAGGGCACTACACCATTGGCAAGGAGATCATTGACCTTGTGTTGGACCGAATTCGCAAGCTGGCTGACCA
GTGCACCCGTCTTCAGGGCTTCTTGGTTTTCCACAGCTTTGGTGGGGGAAC TGTTCTGGGTTACCTCCCTGCT
CATGGAACGCCTGT CAGTTGATTATGGCAAGAAATCCAAGCTGGAGTTCTCCATTTACCCGGCACCCCAAGTTTC
CACAGCTGTAGTTGAGCCCTACAACCTCCATCCTCACCACCCACACCACCCTGGAGCACTCTGATTGTGCCTTCAT
GGTAGACAATGAGGCCATCTATGACATCTGTCTGTAGAAACCTCGATATCGAGCGCCCCAACCTACACTAACCTTAA
CCGCCTTATTAGCCAGATTGTGTCTCCATCACTGCTTCCCTGAGATTTGATGGAGCCCTGAATGTTGACCTGAC
AGAATTCCAGACCAACCTGGTCCCCCTACCCCGCATCCACTTCCCTCTGGCCACATATGCCCCGTGCATCTCTGC
TGAGAAAGCCTACCATGAACAGCTTTCTGTAGCAGACATCACCAATGCTTGCTTTGAGCCAGCCAACCAGATGGT
GAAATGTGACCCTGGCCATGGTAAATACATGGCTTGCTGCCTGTTGTACCGTGGTGACGTGGTTCCCAAAGATGT
CAATGCTGCCATTGCCACCATCAAAACCAAGCGCACGATCCAGTTTGTGGATTGGTGCCCCACTGGCTTCAAGGT
TGGCATCAACTACCAGCCTCCCACTGTGGTGCCTGGTGGAGACCTGGCCAAGGTACAGAGAGCTGTGTGCATGCT
GAGCAACACCACAGCCATTGCTGAGGCCTGGGCTCGCCTGGACCACAAGTTTGACCTGATGTATGCCAAGCGTGC
CTTTGTTCACTGGTACGTGGGTGAGGGGATGGAGGAAGGCGAGTTTTAGAGGCCCGTGAAGATATGGCTGCCCT
TGAGAAGGATTATGAGGAGGTTGGTGTGGATTCTGTTGAAGGAGAGGGTGAGGAAGAAGGAGAGGAATACT**TAATT**
ATCCATTCTTTTGGCCCTGCAGCATGTCATGCTCCAGAATTTAGCTTCAGCTTAAC TGACAGATGTTAAAGC
TTTCTGGTTAGATTGTTTTCACTTGGTGATCATGTCTTTTCCATGTGTACCTGTAATATTTTTCCATCATATCTC
AAAGTAAAGTCATTAACATCA

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FIGURE 67

MRECISIHVGQAGVQIGNACWELYCLEHGIQPDGQMPSDKTIGGGDDSFNTFFSETGAGKHVPRAVFVDLEPTVI
DEVRTGTYRQLFHPEQLITGKEDAANNYARGHYTIGKEIIDLVLDRIKRLADQCTRLQGFLVFHSFGGGTGSGFT
SLLMERLSVDYGKKSLEFSIYPAPQVSTAVVEPYNSILTTHTTLEHSDCAFMVDNEAIYDICRRNLDIERPTYT
NLNRLISQIVSSITASLRFDGALNVDLTEFQTNLVPYPRIHFPLATYAPVISA EKAYHEQLSVADITNACFEPAN
QMVKCDPGHGKYMACCLLYRGDVVPKDVNAAIATIKTKRTIQFVDWCPTGFKVGINYQPPTVVPGGDLAKVQRAV
CMLSNTTAIAEAWARLDHKFDL MYAKRA FVHWYVGEGMEEGEFSEAREDMAALEKDYE EVGVDSVEGE GEEGEE
Y

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FIGURE 68

ATCTCTCTCGGGTGGAGTCCTTCTGACAGCTGGTIGCGCCTGCCCGGGAACATCCTCCTGGACTCAATCATGGCTT
GTGGTCTGGTCGCCAGCAACCTGAATCTCAAACCTGGAGAGTGCCTTCGAGTGCGAGGCGAGGTGGCTCCTGACG
CTAAGAGCTTCGTGCTGAACCTGGGCAAAGACAGCAACAACCTGTGCCTGCACTTCAACCCTCGCTTCAACGCCC
ACGGCGACGCCAACACCATCGTGTGCAACAGCAAGGACGGCGGGGCCTGGGGGACCGAGCAGCGGGAGGCTGTCT
TTCCCTTCCAGCCTGGAAGTGTTCAGAGGTGTGCATCACCTTCGACCAGGCCAACCTGACCGTCAAGCTGCCAG
ATGGATACGAATTCAAGTCCCCAACCGCCTCAACCTGGAGGCCATCAACTACATGGCAGCTGACGGTGACTTCA
AGATCAAATGTGTGGCCTTTGACTTGAAATCAGCCAGCCCATGGCCCCCAATAAAGGCAGCTGCCTCTGCTCCCT
G

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FIGURE 69

MACGLVASNLNLKPGECLRVGEVAPDAKSFVLNLGKDSNNLCLHFNPRFNAHGDANTIVCNSKDGGAWGTEQRE
AVFPFQPGSVAEVCITFDQANLTVKLDPDGYEFKFPNRLNLEAINYMAADGDFKIKCVAFD

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FIGURE 70

TCAGAAGCTGATTGCATCCAAAGCAAATGACCACCAAGGTTTTTATCTTCTAAACAGTATAATAGAGCACATGCC
 TCCTGAATCAGTTGACCAATATAGGAAACAAATCTTCATTCTGCTATTCCAGAGACTTCAGAATTCCAAAACAAC
 CAAGTTTATCAAGAGTTTTTTAGTCTTTATTAATTTGTATTGCATAAAATATGGGGCACTAGCACTACAAGAAAT
 ATTTGATGGTATACAACCAAAAATGTTTGGGAATGGTTTTGGAAAAAATTATTATTCCTGAAATTCAGAAGGTATC
 TGGAAATGTAGAGAAAAAGATCTGTGCGGTTGGCATAACCAAAATTACTAACAGAATGTCCCCCAATGATGGACAC
 TGAGTATACCAAACCTGTGGACTCCATTATTACAGTCTTTGATTGGTCTTTTTGAGTTACCCGAAGATGATACCAT
 TCCTGATGAGGAACATTTTATTGACATAGAAGATACACCAGGATATCAGACTGCCTTCTCACAGTTGGCATTTCG
 TGGGAAAAAAGAGCATGATCCTGTAGGTCAAATGGTGAATAACCCCAAAATTCACCTGGCACAGTCACTTCACAA
 GTTGTCTACCGCCTGTCCAGGAAGGACCTATTTTTGAAGGCATAAAAAGCAGTTGAGTTTCTGGAGAATTTTTGGA
 TGGTGATTAATGACTTGACTGGCTGCTCTTCCCAGAGCTGTGGCAGCTCTCCCGTAGAAGATGGGGTTTGTATTG
 GCGCACCAAGATCTCCAACAGCCAGTGTGTGTTTCCCATCTCTTGTAGGTTCCATCAATGGTGAGCACCAGCCTG
 AATGCAGAAGCGCTCCAGTATCTCCAAGGGTACCTTCAGGCAGCCAGTGTGACACTGCTTTAAACTGCATTTTTTC
 TAATGGGCTAAACCCAGATGGTTTCTTAGGAAATCACAGGCTTCTGAGCACAGCTGCATTAAACAAAGGAAGTT
 CTCCTTTTGAACCTGTGCACGAATTCCATCTTGTAAAGGATATTAAATGTTGCTTTAACCTGAACCTTGAGCAAAT
 TAGTTGGTTTGTGTGATCATAAGTTATGTGGGTGGCTTCTAGTTTGCAACTTCAAGGGACAAGTATTAATAGTT
 CAGTGTATGGCGTTGGTTTGTGTTGAGCGTTTGACGGTTTGGATAATCTTAAATTTTGACGGACACTGTGGAGA
 CTTTXXCTGTACTAAATCCTTTTGTGTTTGAAGCTGTTGCTATTTGTATTTCTTGTCTTTATATTTTTTGTCT
 GTTTATTTACGCTTTTATTGGAATGTGAATAAGTAAAGAATTACTTGTGTTACTTGCCAAGCAGTGCACATTTTC
 ATAGTTTCAAATCTGTAATCAGCAATAAAAATCCTAAAATATGTACCTAAAAAAAAAAAAAAAAAAAAA

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FIGURE 71

CGGGATGCGGCGCGCCGCGCGTTGAACCTCCTTGGCCTGGGCGAAGCTGTGTGGACCAAGCAAGTCAGGAGTGTG
GCC**ATG**TTTTCTGAGCAGGCTGCCCAGAGGGCCACACTCTACTGTCCCCACCATCAGCCAACAATGCCACCTTT
GCCCGGGTGCCAGTGGCAACCTACACCAACTCCTCACAACCCTTCCGGCTAGGAGAGCGCAGCTTTAGCCGGCAG
TATGCCACATTTATGCCACCCGCCTCATCCAAATGAGACCCTTCCCTGGAGAACCGGGCCAGCAGCACTGGGGC
AGTGGAGTGGGAGTGAAGAAGCTGTGTGAAGTGCAGCCTGAGGAGAAGTGCTGTGTGGTGGGCACTCTGTTCAAG
GCCATGCCGCTGCAGCCCTCCATCCTGCGGGAGGTGAGCGAGGAGCACAACTGCTCCCCAGCCTCCTCGGAGT
AAATACATACACCCAGATGACGAGCTGGTCTTGGGAAGATGAACTGCAGCGTATCAAATAAAAGGCACCATTGAC
GTGTCAAAGCTGGTTACGGGGACTGTCTGGCTGTGTTTGGCTCCGTGAGAGACGACGGGAAGTTTCTGGTGGAG
GACTATTGCTTTGCTGACCTTGCTCCCCAGAAGCCCGCACCCCCACTTGACACAGATAGGTTTGTGCTACTGGTG
TCCGGCCTGGGCCTGGGTGGCGGTGGAGGCGAGAGCCTGCTGGGCACCCAGCTGCTGGTGGATGTGGTGACGGGG
CAGCTTGGGGACGAAGGGGAGCAGTGCAGCGCCGCCACGTCTCCCGGGTTATCCTCGCTGGCAACCTCCTCAGC
CACAGCACCCAGAGCAGGGATTCTATCAATAAGGCCAAATACCTCACCAAGAAAACCCAGGCAGCCAGCGTGGAG
GCTGTAAAGATGCTGGATGAGATCCTCCTGCAGCTGAGCGCCTCAGTGCCCGTGGACGTGATGCCAGGCGAGTTT
GATCCCACCAATTACACGCTCCCCCAGCAGCCCTCCACCCCTGCATGTTCCCGCTGGCCACTGCCTACTCCAG
CTCCAGCTGGTCACCAACCCCTACCAGGCCACCATTGATGGAGTCAGATTTTTTGGGGACATCAGGACAGAACGTG
AGTGACATTTTCCGATACAGCAGCATGGAGGATCACTTGGAGATCCTGGAGTGGACCCTGCGGGTCCGTACATC
AGCCCCACAGCCCCGGACACTCTAGGTTGTTACCCCTTCTACAAAACCTGACCCGTTCTCTTCCAGAGTGCCCG
CATGTCTACTTTTGTGGCAACACCCCCAGCTTTGGCTCCAAAATCATCCGAGGTCCTGAGGACCAGACAGTGCTG
TTGGTGACTGTCCCTGACTTCAGTGCCACGCAGACCGCCTGCCTTGTGAACCTGCGCAGCCTGGCCTGCCAGCCC
ATCAGCTTCTCGGGCTTCGGGGCAGAGGACGATGACCTGGGAGGCCTGGGGCTGGGCCCC**TGAC**TAAAAAAGTG
GTTTTGACCAGAGAGGCCAGATGGAGGCTGTTCAATCCCTGCAGTGTCGGCATTGTAAATAAAGCCTGGCACTT
GCTGATGCG

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FIGURE 72

MFSEQAAQRAHTLLSPPSANNATFARVPVATYTNSSQPFRLGERSFSRQYAHYATRLIQMRPFLENRAQQHWGS
GVGVKKLCELQPEEKCCVVGTLFKAMPLQPSILREVSEHNLLPQPFRSKYIHPDDELVEDELQRIKLKGTIDV
SKLVTGTVLAVFGSVRDDGKFLVEDYCFADLAPQKPAPPLDTRFVLLVSGLGLGGGGESLLGTQLLDVVTGQ
LGDEGEQCSAAHVSRLVILAGNLLSHSTQSRDSINKAKYLTKKTQAASVEAVKMLDEILLQLSASVPVDVMPGEFD
PTNYTLPQQPLHPCMFPLATAYSTLQLVTNPYQATIDGVRFLGTSGQNVSDIFRYSSMEDHLEILEWTLRVRHIS
PTAPDTLGCYPFYKTDPIFPECPHVYFCGNTPSFGSKIIRGPEDQTVLLVTVPDFSATQTACLVNLRSLACQPI
SFSGFGAEDDDLGGGLGLGP



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FIGURE 74

MADDLDFETGDAGASATFPMQCSALRKNGFVVLKGRPCKIVEMSTSKTGKHGHAKVHLVGIDIFTGKKYEDICPS
THNMDVPNIKRNDQFLIGIQDGYLSLLQDSGEVREDLRLPEGDLGKEIEQKYDCGEEILITVLSAMTEEAATAIK
AMAK

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FIGURE 75

AGCGAGTCCTTCTTTTCCTGACTGCAGCTCTTTTCATTTTGCCATCCTTCTCCAGCTCCCATGATGGTTCTGCAGG
 TTTCTGCGCCCCCGGACAGTGGCTCTGACGGCGTTACTGATGGTGCTGCTCACATCTGTGGTCCAGGGCAGGG
 CCACTCCAGAGAATTACGTGTACCAGGGACGGCAGGAATGCTACGCGTTTAATGGGACACAGCGCTTCCTGGAGA
 GATACATCTACAACCGGGAGGAGTACGCGCGCTTCGACAGCGACGTGGGGGAGTTCCGGGCGGTGACGGAGCTGG
 GGCGGCTGCTGCGGAGTACTGGAACAGCCAGAAGGACATCCTGGAGGAGAAGCGGGCAGTGCCGGACAGGGTAT
 GCAGACACAACACTACGAGCTGGACGAGGCCGTGACCTGCAGCGCCGAGTCCAGCCTAAGGTGAACGTTTCCCCCT
 CCAAGAAGGGGCCCTGCAGCACCACAACCTGCTTGTCTGCCACGTGACAGATTTCTACCCAGGCAGCATTCAAG
 TCCGATGGTTCTCTGAATGGACAGGAGGAAACAGCTGGGGTCTGTGTCCACCAACCTGATCCGTAATGGAGACTGGA
 CCTTCCAGATCCTGGTGATGCTGGAAATGACCCCCAGCAGGGAGACGTCTACATCTGCCAAGTGGAGCACACCA
 GCCTGGACAGTCTGTACCGTGGAGTGGAAGGCACAGTCTGATTCTGCCCAGAGTAAGACATTGACGGGAGCTG
 GGGGCTTCGTGCTGGGGCTCATCATCTGTGGAGTGGGCATCTTCATGCACAGGAGGAGCAAGAAAGTTCAACGAG
 GATCTGCATTAAACAGGGTTCTGACCTCACCGAAAAGACTAATGTGCCTTAGAACAAGCATTGTGCTGTGTTTGT
 TAACACCTGGTTCCAGGACAGACCCTCAGCTTCCCAAGAGGATACTGCTGCCAAGAAGTTGCTCTGAAGTCAGTT
 TCTATCGTTCTGCTCTTTGATTCAAAGCACTGTTTCTCTCACTGGGCCTCCAACCATGTTCCCTTCTTCTTAGCA
 CCACAAATAATCAAAACCCAACATAAGTGTGTTTCTTTTAAAAATATGCATCAAATCGTCTCTCATTACTTT
 TCTCTGAGGGTTTTAGTAAACAGTAGGAGTTAATAAAGAAGTTCAATTTGGTTTACACGTAGGAAAGAAGAGAAG
 CATCAAAGTGGAGATATGTTAACTATTGTATAATGTGGCCTGTTATACATGACACTCTTCTGAATTGACTGTATT
 TCAGTGAGCTGCCCCCAAATCAAGTTTAGTGGCCTCATCCATTTATGTCTCAGACCGCTATTCTTAACTATTCAA
 TGGTGAGCAGACTGCAAATCTGCCTGATAGGACCCATATTCCCACAGCACTAATTCAACATATATCTTACTGAGA
 GCATGTTTTATCATTACCATTAAGAAGTTAAATGAACATCAGAATTTAAATCATAAATATAATCTAATACACTT
 T

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FIGURE 76

MMVLQVSAAPRTVALTALLMVLLTSVVQGRATPENYVYQGRQECYAFNGTQRFLERYIYNREEYARFDSVGEFR
AVTELGRPAAEYWNSQKDILEEKRAVPDRVCRHNYELDEAVTLQRRVQPKVNVSPSKKGPLQHHNLLVCHVTDFY
PGSIQVRWFLNGQEETAGVVSTNLIRNGDWTQILVMLEMPQQGDVYICQVEHTSLDSPVTVEWKAQSDSAQSK
TLTGAGGFVLGLIICGVGIFMHRRSKKVQRGSA

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FIGURE 77

GGCACGAGGGGCGGCCGGTGAGGGGGAAGCAAGTCTGGTCTCTGTGATTGAAGAAGTCGGCTCTGGGCTCCAGTG
CGGGAATCACACACATACCTCAGAAATGCCGGGTCTAAGTTGTAGATTTTATCAACACAAATTTCTGAGGTGGAA
GATGTAGTGATGGTGAATGTCAGATCCATTGCTGAAATGGGGGCTTATGTCAGCTTGCTGGAATACAACAACATT
GAAGGCATGATTCTTCTTAGTGAATTATCCAGAAGGCGTATCCGTTCTATCAACAACTCATCCGAATTGGCAGG
AATGAGTGTGTGGTTGTCATTAGGGTGGACAAAGAAAAAGGATATATTGATTTGTCAAAAAGAAGAGTTTCTCCA
GAGGAAGCAATCAAATGTGAAGACAAATTCACAAAATCCAAAATGTTTATAGCATTCTTCGTCATGTTGCTGAG
GTGTTAGAATACACCAAGGATGAGCAGCTGGAAAGCCTATTCCAGAGGACTGCCTGGGTCTTTGATGACAAGTAC
AAGAGACCTGGATATGGTGCCTATGATGCATTTAAGCATGCAGTCTCAGACCCATCTATTTTGGATAGTTTAGAT
TTGAATGAAGATGAACGGGAAGTACTCATTAAATAATATTAATAGGCGCTTGACCCACAGGCTGTCAAAATTCGA
GCAGATATTGAAGTGGCTTGTATGGTTATGAAGGCATTGATGCTGTAAAAAGAAGCCCTAAGAGCAGGTTTGAAT
TGTTCTACAGAAAACATGCCATTAAAGATTAATCTAATAGCTCCTCCTCGGTATGTAATGACTACGACAACCCTG
GAGAGAACAGAAAGGCCCTTCTGTCTCAGTCAAGCTATGGCTGTTATCAAGAGAAGATTGAGGAAAAGAGGGGT
GTGTTCAATGTTCAAATGGAGCCCAAAGTGGTTCACAGATACAGATGAGACTGAACTTGCGAGGCAGATGGAGAGG
CTTGAAAGAGAAAATGCCGAAGTGGATGGAGATGATGATGCAGAAGAAAATGGAAGCCAAAGCTGAAGATTAACTT
TGTGGGAAACAGAGTCCAATTTAAGGAACACAGAGCAGCGCTTCTCGCTGTAAATCCTAGACTTGAAAGTTTTCT
CAGTATTGAAAACCTCAAAGCTGAATATTTTTTATTTCTAAGTATTTAAATGTTCTAACAGATCAGAACATGAAA
TGCCCTCCTAAATGTCAGCTGTTGTCACACAGTAGCTCCAACACTTTGAGCATTTTTAAGGGAGTGGCCTCATTT
CACTAGAGACAAATCTTTAAGAATAGTTCTAAAATTTGGGCTTGATTTCCATTTCTGATGTCTCCAGATTGGCA
CCCCTTTCTAGTTCAATGCCTCACGAGATTGGCAGGGGCATCCAAGGCAAACAATCCCAATCTTTCTATATAAA
ATGTATTCAAGCAAACATCAAATAAATTTCTGGGATATTTAACTATAGGCTTCTCCTTCTTGTCACCAGTTAAA
AGCATTTTAATACTAAGACCCTAATCTTTTTATCTTTATTTTAGTCTTGATGTGGAAGTGTAGGAGCAGGTGAAT
AAAGGATCTCTATAACAGATCCTTTCAAAGAAGAGTTTTAGAGAAAATAAATTTAACTTTAACCACAGTGAAAG
TTGACCCTTAGCGGGACAAAGCCTTAAATGCATTGAAAGAATTAGATCGGTTCTGTGCCTTTTATCTATTTGAG
ATTGATGACAACCTGTGTGAGAGAATTTATCACACCACGTCTTATTGGAATAATAAGCTACTTGCCCTGAGTTT
ATAATTCAGGGTGGTAAAGTATGTTTTTAAATTTTAAAAAGCAGCTGCATTTTTTTATTTAGTTGGAATATCACC
AATTTTTTATTTTTATTTGCTATTTAAATATCCACTAGATGCCACCTAGAGCTCCAGTTCTTTATAACAAAACAGG
GATCTGTTTGAACACTTACTGTTGTTTTTTTTTTTTTACATGTTTCCATCATTTCTGTCTTTAAGAAGTAAATTCG
TACATAATAAGTTTCATAGGTAACACATTATATTCTCTTATGATACTTGAGGTACCAGTTGTATTTAATTTTTATT
CATTATCCCTAGATAGCTATTAAGATACTTAGATTAGACCTAACCCACCATAGTCAATCCAAGACTAGACTACTC
AATATTAAAGGGTCTGGAATAAGAGAGTGTGTTGGGCAGGTAGTTTGTACCATTTATGAAGGTTTGTTCCTTT
GTTAAATTTAGCAGCCTGTACTAGCTTTTGAAATCCAGAAGTTTAACTTCCAGTGGCTGGTTTCTGAGAGAGTG
CCATGATTGCTAGCCAGCATTCCATATTGGGAATATGTAGAGGAGAACCTGGATGTAAGAGTGGCATATAA
TTTTCACTTCTGTCTGTTGAGGCAAAAAAAAAACAAGTTTAGAAAGCTGGCAACATGAAGAATGCATTCAAATA
TAACAGGTGCTTCTTTGTTGTACGCAGAGGAATTTTTCTTTTGATTTTGTCTACTGAAATTTGTTATACTTCAA
AAGCCATAACTTGAAAAATACTGGTGGCGTCGATGGTGAGTGATTTTATCCACGTGGGCCCTTTTGCTCAGTTC
CATGGCAATTTTGTAATTTGACCCTAGCCAGAGATAGATCAGTATTTCACTGATACCACGAGGAAAAGAACAA
CAAACTTTAAAGTATTCATACACCTTGCTAACCTAAAAGACAGCAGGGACAAGATACATATGAGGACAAGGTAT
ACACCCAGTTCTGAATAACTTGAAGAACAGGCTTGGAAGAAGTAAGTTTATCCAAATCTTGAATTTCTGCCAG
GCATGGTAGCTCATGCCTGTAACCTGGCACTTAAGGGGCCAAGGCAGGAGGATCACTTGAGGCCAGTGAGCTGT
GATCACTCCAGTGCCTCGAGCCTGGGTGACAGGGCAAGACCCTGTCTCAAAAAAAAAAAAAAAAAAAAA

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FIGURE 78

MPGLSCRFYQHKFPEVEDVVMVNVRSIAEMGAYVSLLEYNNIEGMILLSELSRRRIRSINKLIRIGRNECVVVIR
VDKEKGYIDLSKRRVSPEEAIKCEDKFTKSKTVYSILRHVAEVLEYTKDEQLESFQRTAWVFDDKYKRPGYGAY
DAFKHAVSDPSILDSLDLNEDEREVLINNINRRRLTPQAVKIRADIEVACYGYEGIDAVKEALRAGLNCSTENMPI
KINLIAPPRYVMTTTTLERTGLSVLSQAMAVIKEKIEEKRGVFNVQMEPKVVTDDETALARQMERLERENAEV
DGDDDAEEMEAKAED

FIGURE 79

[illegible]

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FIGURE 80

MERIPSAQPPACLPKAPGLEHGDLPGLMYPAHMYQVYKSRRGIKRSEDSKETYKLPHRLIEKKRRDRINECIAQL
KDLLPEHLKLTTLGHLEKAVVLELTCLKHVKALTNLIDQQQKI IALQSGLQAGELSGRNVETGQEMFCSGFQTCA
REVLQYLAKHENTRDLKSSQLVTHLHRVVSELLQGGTSRKPSDPAPKVMDFKEKPSSPAKGSEPGKNCVPVIQR
TFAHSSGEQSGSDTDTDSGYGGESEKGDLRSEQPCFKSDHGRRFTMGERIGA IKQESEEPPTKKNRMQLSDDEGH
FTSSDLISSPFLGPHPHQPPFCLPFYLIPPSATAYLPMLEKCWYPTSVPVLYPGLNASAAALSSFMNPDKISAPL
LMPQRLPSPLPAHP SVDSSVLLQALKPIPLNLETKD

FIGURE 81

[illegible]

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FIGURE 82

MERIPSAQPPPACLPKAPGLEHGDLPGLMYPAHMYQVYKSRRGIKRSEDSKETYLPHRLIEKKRRDRINECIAQL
KDLLPEHLKLTTLGHLEKAVVLELTCLKHVKALTNLIDQQQOKIIALQSGLQAGELSGRNVETGQEMFCSGFQTCA
REVLQYLAKHENTRDLKSSQLVTHLHRVVSELLQGGTSRKPSDPAPKVMDFKEKPSSPAKGSEGPKNVCVPVIQR
TFAHSSGEQSGSDTDTDSGYGGESEKGDLRSEQPCFKSDHGRRFTMGERIGAIIKQEEEPPTKKNRMQLSDDEGH
FTSSDLISSPFLGPHPHQPPFCLPFYLIPPSATAYLPMLEKCWYPTSVPVLYPGLNASAAAALSSFMNPDKISAPL
LMPQRLPSPLPAHPSVDSSVLLQALKPIPLNLETKD

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FIGURE 83A

GTCCTTTCACGCGTGTCTTCGTGTTGGTGCGCTTTTCACTGGTCATAAAGTGCTGCTCACGGCCGTGAACTGCTA
CAGCGTGAAGGCCGCCACCCGGGTCCAGGATGCTTTTGGCGCCGCCAAGCTCCTGGCCCTGGCCCTGATCATCCT
GCTGGGCTTCGTCCAGATCGGGAAGGGTGATGTGTCCAATCTAGATCCCAAGTTCTCATTTGAAGGCACCAAAC
GGATGTGGGGAACATTGTGCTGGCATTATACAGCGCCTCTTTGCCTATGGAGGATGGAATTACTTGAATTTTCGT
CACAGAGGAAATGATCAACCCCTACAGAAACCTGCCCCCTGGCCATCATCATCTCCCTGCCCATCGTGACGCTGGT
GTACGTGCTGACCAACCTGGCCTACTTCACCACCCTGTCCACCAGCAGATGCTGTCTGTCGAGGCCGTGGCCGT
GGACTTCGGGAACATATCACCTGGGCGTCATGTCTGGATCATCCCCGTCTTCGTGGGCCTGTCTGCTTTGGCTC
CGTCAATGGGTCCCTGTTACATCTCCAGGCTCTTCTTCGTGGGGTCCCGGGAAGGCCACCTGCCCTCCATCCT
CTCCATGATCCACCCACAGCTCCTCACCCCGTGCCGTCCCTCGTGTTCACGTGTGTGATGACGCTGCTCTACGC
CTTCTCCAAGGACATCTTCTCCGTATCAACTTCTTACGCTTCTTCAACTGGCTCTGCGTGGCCCTGGCCATCAT
CGGCATGATCTGGCTGCGCCACAGAAAGCCTGAGCTTGAGCGGCCCATCAAGGTGAACCTGGCCCTGCCTGTGTT
CTTCATCCTGGCCTGCCTCTTCTGATCGCCGTCTCCTTCTGGAAGACACCCGTGGAGTGTGGCATCGGCTTCAC
CATCATCCTCAGCGGGCTGCCCGTCTACTTCTTCGGGGTCTGGTGAAAAACAAGCCCAAGTGGCTCCTCCAGGG
CATCTTCTCCACGACCGTCTGTGTGTCAGAAGCTCATGCAGGTGGTCCCCCAGGAGACATAGCCAGGAGGCCGAGT
GGCTGCCGGAGGAGCATGCGCAGAGGCCAGTTAAAGTAGATCACCTCCTCGAACCACCTCCGTTCCCCGCAACC
CACAGCTCAGCTGCCCATCCAGTCTCGCCGTCCCTCCAGGTGCGGCAGTGGAGGCTGCTGTGAAAACCTCTGG
TACGAATCTCATCCCTCAACTGAGGGCCAGGGACCCAGGTGTGCTGTGCTCCTGCCCAGGAGCAGCTTTTGGTC
TCCTTGGGCCCTTTTTCCCTTCCCTCCTTTGTTTACTTATATATATATTTTTTTTTAACTTAAATTTTGGGTCAA
CTTGACACCACTAAGATGATTTTTTAAGGAGCTGGGGGAAGGCAGGAGCCTTCCTTTCTCCTGCCCAAGGGCCC
AGACCTTGGGCAACAGAGCTACTGAGACTTGGAACCTCATTGCTACCACAGACTTGCCTGAAGCCAGACAGCT
GCCCAGACACATGGGCTTGTGACATTCTGTGAAAACCAACCTGTGGGCTTATGTCTCTGCCTTAGGGTTTGCAGA
GTGGAACCTCAGCCGTAGGGTGGCACTGGGAGGGGGTGGGGGATCTGGGCAAGGTGGGTGATTCTCCTCCAGGAGG
TGCTTGAGGCCCCGATGGACTCCTGACCATAATCCTAGCCCCGAGACACCATCCTGAGCCAGGGAACAGCCCCAG
GGTTGGGGGGTGCCGGCATCTCCCTAGCTCACCAGGCCTGGCCTCTGGGCAGTGTGGCCTCTTGGCTATTTCTG
TTCCAGTTTTGGAGGCTGAGTTCTGTTTATGCAGACAAAGCCCTGTCTTCAGTCTTCTAGAAACAGAGACAAG
AAAGGCAGACACACCGCGGCCAGGCACCCATGTGGGCGCCACCCCTGGGCTCCACACAGCAGTGTCCCCTGCCCC
AGAGGTGCGAGCTACCCTCAGCCTCCAATGCATTGGCCTCTGTACCGCCCGGCAGCCCTTCTGGCCGGTGCTGG
GTTCCCACTCCCGGCCCTAGGCACCTCCCGCTCTCCCTGTACGCTCATGTCTGTCTGCTGCTGATGCCCGTT
GTCTAGGAGACAGAGCCAAGCACTGCTCAGCTCTCTGCCGCTGCGTTTGGAGGCCCTGGGCTCTCACCCAGTC
CCCACCCGCTGCAGAGAGGGAACCTAGGGCACCCCTTGTTTCTGTGTGTTCCCGTGAATTTTTTTCGCTATGGGAG
GCAGCCGAGGCTGGCCAATGCGGCCCACTTTCTGAGCTGTGCTGCTTCCATGGCAGCAGCCAAGGACCCCCA
GAACAAGAAGACCCCCCGCAGGATCCCTCCTGAGCTCGGGGGGCTCTGCCTTCTCAGGCCCCGGGCTTCCCTTC
TCCCCAGCCAGAGGTGGAGCCAAGTGGTCCAGCGTCACTCCAGTGCTCAGCTGTGGCTGGAGGAGCTGGCCTGTG
GCACAGCCCTGAGTGTCCCAAGCCGGGAGCCAACGAAGCCGGACACGGCTTCACTGACCAGCGGCTGCTCAAGCC
GCAAGCTCTCAGCAAGTGCCAGTGGAGCCTGCCGCCCCACCTGGGCACCGGGACCCCTCACCATCCAGTGGG
CCCGGAGAAACCTGATGAACAGTTTGGGACTCAGGACCAGATGTCCGTCTCTTGTGTTGAGGAATGAAGACCT
TTATTACCCCTGCCCCGTGCTTCCCGCTGCACATGGACAGACTTCACAGCGTCTGCTCATAGGACCTGCATCC
TTCCTGGGGACGAATTCCACTCGTCCAAGGGACAGCCACGGTCTGGAGGCCGAGGACCACCAGCAGGCAGGTGG
ACTGACTGTGTTGGGCAAGACCTCTTCCCTCTGGGCCTGTTCTCTTGGCTGCAAAATAAGGACAGCAGCTGGTGCC
CCACCTGCCTGGTGCATTGCTGTGTGAATCCAGGAGGCAGTGGACATCGTAGGCAGCCACGGCCCCAGGTCCAGG
AGAAGTGCTCCCTGGAGGCACGGACCACTGCTTCCCACTGGGGCCGGCGGGGGCCACGCACGACGTACGCCTCTT
ACCTTCCCGCCTCGGCTAGGGTCTCTCGGGATGCCGTTCTGTTTCCAACCTCCTGTCTGGGAGGTGGACATGCCT
CAAGGATACAGGGAGCCGGCGGCCTCTCGACGGCACGCACTTCTGTTGGCTGCTGCGGCTGTGGGCGAGCATGG
GGGCTGCCAGCGTCTGTTGTGAAAGTAGCTGCTAGTGAAATGGCTGGGGCCGCTGGGGTCCGTCTTACACTGC
GCAGGTCTCTTCTGGGCGTCTGAGCTGGGGTGGGAGCTCCTCCGCAGAAGGTTGGTGGGGGGTCCAGTCTGTGAT
CCTTGGTGTGTGTGCCCCACTCCAGCCTGGGGACCCCACTTCAAGAGGTAGGGGCCGTGTCCCGCGGTGCTGAC
TGAGGCCTGCTTCCCCCTCCCCCTCCTGCTGTGCTGGAATTCACAGGGACAGGGCCACCGCAGGGGACTGTCT
CAGAAGACTTGATTTTTCCGTCCCTTTTTCTCCACACTCCACTGACAAACGTCCCCAGCGGTTTCCACTTGTGGG

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FIGURE 83B

CTTCAGGTGTTTTCAAGCACAACCCACCACAACAAGCAAGTGCATTTTCAGTCGTTGTGCTTTTTTGTGTTTGTGC
TAACGTCTTACTAATTTAAAGATGCTGTCGGCACCATGTTTATTTATTTCCAGTGGTCATGCTCAGCCTTGCTGC
TCTGCGTGGCGCAGGTGCCATGCCTGCTCCCTGTCTGTGTCCCAGCCACGCAGGGCCATCCACTGTGACGTCGGC
CGACCAGGCTGGACACCCCTCTGCCGAGTAATGACGTGTGTGGCTGGGACCTTCTTTATTCTGTGTTAATGGCTAA
CCTGTTACACTGGGCTGGGTTGGGTAGGGTGTTCTGGCTTTTTTGTGGGGTTTTTATTTTTAAAGAAACACTCAA
TCATCCTAG

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FIGURE 84

MINPYRNLPLAIIISLPVTLVYVLTNLAYFTTLSTEQMLSSEAVAVDFGNYHLGVMSWIIPV FVGLSCFGSVNG
SLFTSSRLFFVGSREGHLPSILSMIHPQLLTPVPSLVFTCVMTLLYAFSKDIFSVINFFSFFNWLCVALAIIIGMI
WLRHRKPELERPIKVNALPVFFILACLFLIAVSFWKTPVECGIGFTIILSGLPVYFFGVWWKNKPKWLLQGIFS
TTVLCQKLMQVVPQET

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FIGURE 85

AGGTCTCAGCCGGTCGTCGCGACGTTGCGCCGCTCGCTCTGAGGCTCCTGAAGCCGAACTAGCTAGACTTTTCCT
 CCTTCCCGCCTGCCTGTAGCGGCGTTGTTGCCACTCCGCCACC**ATGT**TCGAGGCGCGCCTGGTCCAGGGCTCCAT
 CCTCAAGAAGGTGTTGGAGGCACTCAAGGACCTCATCAACGAGGCCTGCTGGGATATTAGCTCCAGCGGTGTAAA
 CCTGCAGAGCATGGACTCGTCCCACGTCTCTTTGGTGCAGCTCACCCCTGCGGTCTGAGGGCTTCGACACCTACCG
 CTGCGACCGCAACCTGGCCATGGGCGTGAACCTCACCAGTATGTCCAAAATACTAAAATGCGCCGGCAATGAAGA
 TATCATTACACTAAGGGCCGAAGATAACGCGGATACCTTGGCGCTAGTATTTGAAGCACCAAACCAGGAGAAAGT
 TTCAGACTATGAAATGAAGTTGATGGATTTAGATGTTGAACAACCTTGAATTCAGAACAGGAGTACAGCTGTGT
 AGTAAAGATGCCTTCTGGTGAATTTGCACGTATATGCCGAGATCTCAGCCATATTGGAGATGCTGTTGTAATTC
 CTGTGCAAAAGACGGAGTGAAATTTCTGCAAGTGGAGAACTTGGAATGGAAACATTAAATTGTCACAGACAAG
 TAATGTCGATAAAGAGGAGGAAGCTGTTACCATAGAGATGAATGAACCAGTTCAACTAACTTTTGCAGTGAAGTA
 CCTGAACTTCTTTACAAAAGCCACTCCACTCTCTTCAACGGTGACACTCAGTATGTCTGCAGATGTACCCCTTGT
 TGTAAGATATAAAATTGCGGATATGGGACACTTAAATACTACTTGGCTCCCAAGATCGAGGATGAAGAAGGATC
TTAGGCATTCTTAAATTCAGAAAATAAACTAAGCTCTTTGAGAACTGCTTCTAAGATGCCAGCATATACTGA
 AGTCTTTTTCTGTCACCAAATTTGTACCTCTAAGTACATATGTAGATATTGTTTTCTGTAAATAACCTATTTTTTT
 TCTCTATTCTCTCCAATTTGTTTAAAGAATAAAGTCCAAAGTCTGATCTGGTCTAGTTAACCTAGAAGTATTTTT
 GTCTCTTAGAAATACTTGTGATTTTTATAATACAAAAGGGTCTTGACTCTAAATGCAGTTTTAAGAAGTGTTTTT
 GAATTTAAATAAAGTTACTTGAATTTCAAAC

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FIGURE 86

MFEARLVQGSILKKVLEALKDLINEACWDISSSGVNLQSMDSHVSLVQLTLRSEGFDYRCDRNLAMGVNLTSM
SKILKCAGNEDIITLRAEDNADTLALVFEAPNQEKVSDYEMKLMDLDVEQLGIPEQEYSCVVKMPSGEFARICRD
LSHIGDAVVISCAKDGVKFSASGELGNGNIKLSQTSNVDKEEEAVTIEMNEPVQLTFALRYLNFFTKATPLSSTV
TLMSADVPLVVEYKIADMGHLKYLLAPKIEDEEGS

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FIGURE 87

TAGCTAGGCAGGAAGTCGGCGCGGGCGGGCGGACAGTATCTGTGGGTACCCGGAGCACGGAGATCTCGCCGGCT
TTACGTTACCTCGGTGTCTGCAGCACCTCCGCTTCCTCTCCTAGGCGACGAGACCCAGTGGCTAGAAGTTCAC
CATGTCTATTCTCAAGATCCATGCCAGGGAGATCTTTGACTCTCGCGGGAATCCCACTGTTGAGGTTGATCTCTT
CACCTCAAAAGGTCTCTTCAGAGCTGCTGTGCCAGTGGTGCTTCAACTGGTATCTATGAGGCCCTAGAGCTCCG
GGACAATGATAAGACTCGCTATATGGGGAAGGGTGTCTCAAAGGCTGTTGAGCACATCAATAAACTATTGCGCC
TGCCCTGGTTAGCAAGAACTGAACGTCACAGAACAAGAGAAGATTGACAACTGATGATCGAGATGGATGGAAC
AGAAAATAAATCTAAGTTTGGTGCGAACGCCATTCTGGGGGTGTCCCTTGCCGTCTGCAAAGCTGGTGCCGTTGA
GAAGGGGGTCCCCCTGTACCGCCACATCGCTGACTTGGCTGGCAACTCTGAAGTCATCCTGCCAGTCCCGGCGTT
CAATGTCATCAATGGCGGTTCTCATGCTGGCAACAAGCTGGCCATGCAGGAGTTCATGATCCTCCCAGTCGGTGC
AGCAAACCTTCAGGGAAGCCATGCGCATTGGAGCAGAGGTTTACCACAACCTGAAGAATGTCATCAAGGAGAAATA
TGGGAAAGATGCCACCAATGTGGGGGATGAAGGCGGGTTTGCTCCCAACATCCTGGAGAATAAAGAAGGCCTGGA
GCTGCTGAAGACTGCTATTGGGAAAGCTGGCTACACTGATAAGGTGGTTCATCGGCATGGACGTAGCGGCCTCCGA
GTTCTTCAGGTCTGGGAAGTATGACCTGGACTTCAAGTCTCCCGATGACCCAGCAGGTACATCTCGCCTGACCA
GCTGGCTGACCTGTACAAGTCCTTCATCAAGGACTACCCAGTGGTGTCTATCGAAGATCCCTTTGACCAGGATGA
CTGGGGAGCTTGGCAGAAGTTCACAGCCAGTGCAGGAATCCAGGTAGTGGGGGATGATCTCACAGTGACCAACCC
AAAGAGGATCGCCAAGGCCGTGAACGAGAAGTCCTGCAACTGCCTCCTGCTCAAAGTCAACCAGATTGGCTCCGT
GACCGAGTCTCTTCAGGCGTGCAAGCTGGCCCAGGCCAATGGTTGGGGCGTCATGGTGTCTCATCGTTCGGGGGA
GACTGAAGATACCTTCATCGCTGACCTGGTTGTGGGGCTGTGCACTGGGCAGATCAAGACTGGTGCCCTTGCCG
ATCTGAGCGCTTGGCCAAGTACAACCAGCTCCTCAGAATTGAAGAGGAGCTGGGCAGCAAGGCTAAGTTTGCCGG
CAGGAACTTCAGAAACCCCTTGGCCAAG**TAA**GCTGTGGGCAGGCAAGCCCTTCGGTCACCTGTTGGCTACACAGA
CCCCTCCCCTCGTGTACAGCTCAGGCAGCTCGAGGCCCCCGACCAACACTTGCAAGGGTCCCTGCTAGTTAGCGCC
CCACCGCCGTGGAGTTCGTACCGCTTCCTTAGAACTTCTACAGAAGCCAAGCTCCCTGGAGCCCTGTTGGCAGCT
CTAGCTTTGCAGTCGTGTAATTGGCCCAAGTCATTGTTTTTCTCGCCTCACTTTCCACCAAGTGTCTAGAGTCAT
GTGAGCCTCGTGTATCTCCGGGGTGGCCACAGGCTAGATCCCCGGTGGTTTTGTGCTCAAAATAAAAAGCCTCA
GTGACCCATGAG

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FIGURE 88

MSILKIHAREIFDSRGNPTVEVDLFTSKGLFRAAVPSGASTGIYEALERDNDKTRYMGKGVSKAVEHINKTIAP
ALVSKKLVTEQEKIDKLMIEMDGTENKSKFGANAILGVSLAVCKAGAVEKGVPLYRHIADLAGNSEVILPVPAF
NVIINGGSHAGNKLAMQEFMILPVGAANFREAMRIGAEVYHNLKNVIKEKYKDATNVGDEGGFAPNILENKEGLE
LLKTAIGKAGYTDKVVIGMDVAASEFFRSGKYDLDFKSPDDPSRYISPDQLADLYKSFIKDYPVVSIEDPFDQDD
WGAWQKFTASAGIQVVGDDLTVTNPKRIAKAVNEKSCNCLLLKVNQIGSVTESLQACKLAQANGWGMVSHRSGE
TEDTFIADLVVGLCTGQIKTGAPCRSERLAKYNQLLRIEEELGSKAKFAGRNFRNPLAK

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FIGURE 89

GGCTGAGGCAGTGGCTCCTTGACAGCAGCTGCACGCGCCGTGGCTCCGGATCTTCTTCGTCTTTGCAGCGTAGC
CCGAGTCGGTCAGCGCCAGAGGACCTCAGCAGCC**ATGT**CGAAGCCCCATAGTGAAGCCGGGACTGCCTTCATTCA
GACCCAGCAGCTGCACGCAGCCATGGCTGACACATTCCCTGGAGCACATGTGCCGCTGGACATTGATTACCACC
CATCACAGCCCGGAACACTGGCATCATCTGTACCATTGGCCAGCTTCCCGATCAGTGGAGACGTTGAAGGAGAT
GATTAAGTCTGGAATGAATGTGGCTCGTCTGAACCTTCTCTCATGGAACATCATGAGTACCATGCGGAGACCATCAA
GAATGTGCGCACAGCCACGAAAGCTTTGCTTCTGACCCCATCCTCTACCGGCCCCGTTGCTGTGGCTCTAGACAC
TAAAGGACCTGAGATCCGAACCTGGGCTCATCAAGGGCAGCGGCACTGCAGAGGTGGAGCTGAAGAAGGGAGCCAC
TCTCAAATCACGCTGGATAACGCCTACATGGAAAAGTGTGACGAGAACATCCTGTGGCTGGACTACAAGAACAT
CTGCAAGGTGGTGAAGTGGGCAGCAAGATCTACGTGGATGATGGGCTTATTTCTCTCCAGGTGAAGCAGAAAGG
TGCCGACTTCCTGGTGACGGAGGTGGAAAATGGTGGCTCCTTGGGCAGCAAGAAGGGTGTGAACCTTCCTGGGGC
TGCTGTGGACTTGCTGTGTGTCGGAGAAGGACATCCAGGATCTGAAGTTTGGGGTCGAGCAGGATGTTGATAT
GGTGTTCGCTCATTTCATCCGCAAGGCATCTGATGTCCATGAAGTTAGGAAGGTCCCTGGGAGAGAAGGGAAAGAA
CATCAAGATTATCAGCAAAATCGAGAATCATGAGGGGGTTTCGGAGGTTTGATGAAATCCTGGAGGCCAGTGATGG
GATCATGGTGGCTCGTGGTGATCTAGGCATTGAGATTCCCTGCAGAGAAGGTCTTCCTTGCTCAGAAGATGATGAT
TGGACGGTGCAACCGAGCTGGGAAGCCTGTCTGTGCTACTCAGATGCTGGAGAGCATGATCAAGAAGCCCCG
CCCCACTCGGGCTGAAGGCAGTGATGTGGCAATGCAGTCCTGGATGGAGCCGACTGCATCATGCTGTCTGGAGA
AACAGCCAAAGGGGACTATCCTCTGGAGGCTGTGCGCATGCAGAACCTGATTGCCCGTGAGGCAGAGGCTGCCAT
CTACCACTTGCAATTATTTGAGGAACCTCGCCGCTGGCGCCCATACCAGCGACCCACAGAAGCCACCGCCGT
GGGTGCCGTGGAGGCCTCCTTCAAGTGCTGCAGTGGGGCCATAATCGTCCTACCAAGTCTGGCAGGTCTGCTCA
CCAGGTGGCCAGATACCGCCACGTGCCCCCATCATTGCTGTGACCCGGAATCCCCAGACAGCTCGTCAGGCCCA
CCTGTACCGTGGCATCTTCCCTGTGCTGTGCAAGGACCCAGTCCAGGAGGCCTGGGCTGAGGACGTGGACCTCCG
GGTGAACCTTGCCATGAATGTTGGCAAGGCCCGAGGCTTCTTCAAGAAGGGAGATGTGGTCATTGTGCTGACCGG
ATGGCGCCCTGGCTCCGGCTTCACCAACACCATGCGTGTTGTTCTGTGCCG**TGAT**GGACCCCAGAGCCCCCTCCT
CCAGCCCCCTGTCCACCCCCCTTCCCCCAGCCCATCCATTAGGCCAGCAACGCTTGTAAGAACTCACTCTGGGCTGT
AACGTGGCACTGGTAGGTTGGGACACCAGGGAAGAAGATCAACGCCTCACTGAAACATGGCTGTGTTTGCAGCCT
GCTCTAGTGGGACAGCCCAGAGCCTGGCTGCCCCATCATGTGGCCCCACCCAATCAAGGGAAGAAGGAGGAATGC
TGGACTGGAGGCCCTGGAGCCAGATGGCAAGAGGGTGACAGCTTCCTTTTCTGTGTGTACTCTGTCCAGTTCCT
TTAGAAAAAATGGATGCCAGAGGACTCCCAACCCTGGCTTGGGGTCAAGAAACAGCCAGCAAGAGTTAGGGGCC
TTAGGGCACTGGGCTGTTGTTCCATTGAAGCCGACTCTGGCCCTGGCCCTTACTTGCTTCTCTAGCTCTCTAGGC
CTCTCCAGTTTGACCTGTCCCCACCCTCCACTCAGCTGTCCTGCAGCAAACTCCACCCCTCCACCTTCATT
TCCCCACTACTGCAGCACCTCCAGGCCTGTTGCCG

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FIGURE 90

MSKPHSEAGTAFIQTQQLHAAMADTFLEHMCRLDIDSPITARNTGIICTIGPASRSVETLKEMIKSGMNVARLN
FSHGTHEYHAETIKNVRTATESFASDPILYRPVAVALDTKGPEIRTGLIKSGTAEVELKKGATLKITLDNAYME
KCDENILWLDYKNICKVVEVGSKIYVDDGLISLQVKQKGADFLVTEVENGGSLGSKKGVNLPGAAVDLPVSEKD
IQDLKFGVEQDQDMVFASFIRKASDVHEVRKVLGEKGKNIKIISKIENHEGVRRFDEILEASDGIMVARGDLGIE
IPAEEKVFLAQKMMIGRCNRAGKPVICATQMLESMIKKPRPTRAEGSDVANAVLDGADCIMLSGETAKGDYPLEAV
RMQNLIAREAEAAIYHLQLFEELRRLAPITSDPTEATAVGAVEASFKCCSGAIIVLTKSGRSAHQVARYRPRAP I
IAVTRNPQTARQAHLYRGIFPVLCKDPVQEAWAEDVDLRVNFAMNVGKARGFFKKGDVVIVLTGWRPGSGFTNTM
RVVPVP

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FIGURE 91

CCGAGGCCAAGTCCCGGGCGCTAGCCACCTCCACCCGCCTCTTGGCTCCTCTCCTCTAGGCCGTGCTTTTCGG
GTTCTCTCATCGCTTCGTGCTTCGCCAATGTTTGAGGAGAAGGCCAGCAGTCCTTCAGGGAAG**ATGGG**AGGCGAG
GAGAAGCCGATTGGTGCTGGTGAAGAGAAGCAAAAGGAAGGAGGCCAAAAAGAAGAACAAAGAAGGATCTGGAGAT
GGAGGTCGAGCTGAGTTGAATCCTTGGCCTGAATATATTTACACACGCTCTTGAGATGTATAATATACTAAAAGCA
GAACATGATTCCATTCTGGCAGAAAAGGCAGAAAAGATAGCAAGCCAATTAAAGTCACCTTGCCTGATGGTAAA
CAGGTTGATGCGGAATCTTGGAAGAACTACACCATATCAAATTGCCTGTGGAATTAGTCAAGGCCTGGCCGACAAC
ACCGTTATTGCTAAAGTAAATAATGTTGTGTGGGACCTGGACCGCCCTCTGGAAGAAGATTGTACCTTGGAGCTT
CTCAAGTTTGAGGATGAGGAAGCTCAGGCAGTGTATTGGCACTCTAGTGCTCACATAATGGGTGAAGGCATGGAA
AGAGTCTATGGTGGATGTTTATGCTACGGTCCGCCAATAGAAAATGGATTCTATTATGACATGTACCTCGAAGAA
GGGGGTGTGTCTAGCAATGATTTCTTCTCTGAGGCTTTGTGTAAGAAAATCATTAAAGAAAAACAAGCTTTT
GAAAGACTGGAAGTTAAGAAAGAACTTTACTGGCAATGTTTAAAGTACAACAAGTTCAAATGCCGGATATTGAAT
GAAAAGGTGAATACTCCAACCTACCACAGTCTATAGATGTGGCCCTTTGATAGATCTCTGCCGGGGTCTCATGTT
AGACACACGGGCAAAATTAAGGCTTTAAAAATACACAAAAATTCCTCCACGTACTGGGAAGGCAAGCAGATATG
GAGACTCTCCAGAGAATTTATGGCATTTCATTCCCAGATCCTAAAAATGTTGAAAGAGTGGGAGAAGTTCCAAGAG
GAAGCTAAAAACCGAGATCATAGGAAAATTGGCAGGGACCAAGAACTATATTTCTTTCATGAAGTACAGCCCTGGA
AGTTGCTTTTTTCTGCCAAAAGGAGTCTATATTTATAATGCACTTATTGAATTCATTAGGAGCGAATATAGGAAA
AGAGGATTCCAGGAGGTAGTCACCCCAAACATCTTCAACAGCCGACTCTGGATGACCTCGGGCCACTGGCAGCAC
TACAGCGAGAACATGTTCTCCTTTGAGGTGGAGAAGGAGCTGTTTGCCCTGAAACCCATGAAGTCCCAGGACAC
TCCTTATGTTTGATCATCGGCCAAGGTCCTGGCGAGAAGTGCCTCTGCGGCTAGCTGATTTTGGGGGTCTTCAT
AGGAACGAGCTGTCTGGAGCACTCACAGGACTCACCCGGGTACGAAGATTCCAACAGGATGATGCTCACATATTC
TGTGCCATGGAGCAGATTGAAGATGAAATAAAAGGTTGTTTGGATTTTCTACGTACGGTATATAGCGTATTTGGA
TTTTCTTTTAACTAAACCTTTCTACTCGCCCGGAAAAATTCCTTGGAGATATCGAAGTATGGGATCAAGCTGAG
AAACAACCTTGAAAACAGTCTGAATGAATTTGGTGAAAAGTGGGAGTTAACTCTGGAGATGGAGCTTTCTATGGC
CCAAAGATTGACATACAGATTAAAGATGCGATTGGGCGGTACCACCAGTGTGCAACCATCCAGCTGGATTTCCAG
TTGCCCATCAGATTAACTTACTTATGTAAGCCATGATGGTGAGGATAAGAAAAGGCCAGTGATTGTTTCATCGA
GCCATCTTGGGATCAGTGGAAGAATGATTGCTATCCTCACAGAAAATATGGGGGCAAATTTGGCCCCCTTTTGG
CTGTCCCCCTCGCCAGGTAATGGTAGTTCCAGTGGGACCAACCTGTGATGAATATGCCAAAACGTACGACAACAA
TTCCACGATGCCAAATTCATGGCAGACATTGATCTGGATCCAGGCTGTACATTGAATAAAAAGATTGGAATGCA
CAGTTAGCACAGTATAACTTCATTTTAGTTGTTGGTGAAAAAGAGAAAATCACTGGCACTGTTAATATCCGCACA
AGAGACAATAAGGTCCACGGGGAACGCACCATTTCTGAACTATCGAGCGGCTACAGCAGCTCAAAGAGTTCCGC
AGCAAACAGGCAGAAGAAGAATTT**TAA**TGAAAAAATTACCCAGATTGGCTCCATGGAAGAGGGAACAGCGTTT
CCGTAAAATTGACTTTGTACTCGAAAACGTCAATTTATATTGAACTTGGAGGAGGAGTTTGGCAAAGTCTGAAAT
AGGTCAACCTGCAGGCGTAACTATTTTTGACCTAGTCAGTTTTTAAACAATGTGCATTTGAAGGAGTTAATTAAA
AGAGAGCCAATAAAATGATTTTACTCATTTCAGTATCTGAGTACTGGAAGTGAAACATGAGGAATGCTTTAGTGTA
ATGTGGGAGAAGTTTTTGTAAATTTAATGCAATTGAAAAAGTTTTCAAATTCAATTAAGATAACTAGAATTGGT
TATGGTGTAACCCGAATTC

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FIGURE 92

MGGEKP IGAGEEKQKEGGKKKNKEGSGDGGRAELNPWEYIYTRLEMYNILKAEHDSILA EKA EKDSKPIKVTL
PDGKQVDAESWKTPYQIACGISQGLADNTVIAKVNNVVWDLDRPLEEDCTLELLKFEDEEAQAVYWHSSAHIMG
EGMERVYGGCLCYGPPIENGFYYDMYLEEGGVSSNDFSSLEALCKKIIKEKQAFERLEVKKETLLAMFKYNKFKC
RILNEKVNTPTTTVYRCGPLIDLRCGPHVRHTGKIKALKIHKNSSTYWEGKADMETLQRIYGISFPDPKMLKEWE
KFQEEAKNRDHRKIGRDQELYFFHELSPGSCFFLPKGVYIYNALIEFIRSEYRKRGFQEVVTPNIFNSRLWMTSG
HWQHYSENMF SFEVEKELFALKPMNCPGHSLMFDHRPRSWRELPLRLADFGGLHRNELSGALTGLTRVRRFQDD
AHIFCAMEQIEDEIKGCLDFLRTVYSVFGFSFKLNLSTRPEKFLGDI EVWDQAEKQLENSLNEFGEKWELNSGDG
AFYGP KIDIQIKDAIGRYHQCATIQLDFQLPIRFNLT YVSHDGEDKKRPVIVHRAILGSVERMIAILTENYGGKL
APFWLSPRQVMVVPVGPTCDEYAQNVRQQFHDAKFMADIDLDPGCTLNKKIRNAQLAQYNFILVVGEKEKITGTV
NIRTRDNKVHGERTISETIERLQQLKEFRSKQAE EEF

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FIGURE 93

GGCACCGCGCGGGACGGAGCTTGGCTGTTGGTCGGTGGGTTCCTGTGCGGCGGCGGCCAAGGAGGAGGAGACACA
GTTGGAGCAGCTCCGTGGGCTGACTGGGGCGAGGCCTCAGCAGCGCGAGCTTGAGTGGGCGGAGCCTGCGGCGC
CTTCCCCTGCGGGTGGGGACGAGCGGGCCCCGCGGCGTCATCGGCGGCGAGGAGCCGCCGCGCCTCGGCCTAGCA
TGTCGGAAGCGGGCGAGGAGCAGCCCATGGAGACGACGGGCGCCACCGAGAACGGACATGAGGCCGTCCCCGAAG
CGAGTCGCGGCGGGGGCTGGACGGGCGCCGCGGCGGGGCTGGAGGCGCGACCGCCGCGCCCCGAGCGGGAATCA
GAACGGCGCCGAGGGACCAGATCAACGCCAGCAAGAACGAGGAGGACGCGGGAAAAATGTTTCGTTGGTGGCCTGA
GCTGGGATACTAGCAAAAAAGATTTAAAAGACTATTTTACTAAATTTGGAGAGGTCGTTGACTGTACAATAAAAA
TGGATCCCAACACTGGACGGTCAAGAGGGTTTGGGTTTATCCTGTTCAAAGATGCAGCCAGTGTGGAGAAGGTCC
TAGACCAGAAGGAGCACAGGCTGGATGGCCGTGTCATTGACCCTAAAAAGGCCATGGCTATGAAGAAGGACCCGG
TCAAGAAAATCTTCGTTGGGGTCTGAATCCTGAAAGTCCCACTGAGGAAAAAGATCAGGGAGTACTTTGGCGAGT
TTGGGGAGATTGAGGCCATTGAATTGCCAATGGATCCAAAGTTGAACAAAAAGACGAGGTTTTGTGTTTATCACCT
TTAAAGAAGAAGAACCCGTGAAGAAGGTTCTGGAGAAAAAGTTCCATACTGTCAGTGGAAGCAAGTGTGAGATCA
AGGTGGCCAGCCCCAAAGAAGTCTATCAGCAGCAGCAGTATGGCTCTGGGGGCCGTGGAACCGCAACCGAGGGA
ACCGAGGCAGCGGAGGTGGTGGTGGAGGTGGAGGTCAGAGTCAGAGTTGGAATCAGGGCTACGGCAACTACTGGA
ACCAGGGCTACGGCTACCAGCAGGGCTACGGGCCTGGCTATGGCGGCTACGACTACTCGCCCTATGGCTATTACG
GCTACGGCCCCGGCTACGACTACAGTCAGGGTAGTACAACTACGGCAAGAGCCAGCGACGTGGTGGCCATCAGA
ATAACTACAAGCCATACT**TGA**GGCGGCCAAGGGAGCGACCAACTGATCGCACACATGCTTTGTTTGGATATGGAGT
GAACACAATTATGTACCAAATTTAACTTGGCAAATTTCTATTGCCTGTCCCATGTGCATCTTATTTAAAATTTT
CCCCATGGAAATCACTCTCCTGTTGACTATTTCCAGAGCTCTAGGTGTTTAGGCAGCGTGTGGTGTCTGAGAGGC
CATAGCGCCATCATGGGCTGATTTTTATTACCAGGTCCCCCAGAAGCAGGTGAGAGGCTCTGCTTCCTGCTGCCG
CTCTGCAGCCTGGACCTGTGGACCCTGGTTGTAAAGAGTAAATTGTATCTTAGGAAACCAGTGTACCTTTTTTT
CACCTTTTAATTTTATATTATTGCGTCATACATTTCTGTAAACGGAAGTGTTAATTTTACTGTACTTTTTTGTA
CCCCTTTTGGGAATCTAATGTATTGTAAGGTATTTTACACGTGTCCTGATTTTGGCACAACCTGGATATTGAAGC
TATCCAAGCTTTTGAAATAAAATTTAAAAACCCCAAGCCTGGGTGAGTGTGGGAAAAAAAAAAAAAAAAA

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FIGURE 94

MSEAGEEQPMETT GATENGHEAVPEASRGRGWTGAAAGLEARPPRPRAGIRTAPRDQINASKNEEDAGKMFVGGL
SWDTSKKDLKD YFTKFGEVVDCTIKMDPNTGRSRGFGF ILFKDAASVEKVLDQKEHRLDGRVIDPKKAMAMKKDP
VKKIFVGGLNPESPT EEEKIREYFGEFGEIEAIELPMDPKLNKRRGFVF ITFKEEEPVKKVLEKKFHTVSGSKCEI
KVAQPK EYVYQQQY GSGGRGNRNRGNRSGGGGGGGGQSQSWNQGYGNYWNQGYGYQQGYGPGYGGYDYSFYGY
GYGPGYDYSQGSTNYGKSQRRGGHQNNYPY

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FIGURE 95

GCCGGGGAAGTCATGCTCGCTTCACGGAGGCAATAGCTAGCCGGTGTCTGTGGGAGGTTATGTTTATTTGAGACT
TCTCCATCGGGATCGCCTGGTGTACCAAGTGTCCACTGGTACTGAGGTTTGTGCGCTGCCTTCTTGCC**ATGT**CT
AACGAAGTAGAAACAAGTGCAACCAATGGTCAGCCCGACCAACAGGCCGCACCAAAAAGCACCCCTCAAGAAGGAA
AAAAAGAAAGGCCCTGAAAAGACAGATGAATATCTCCTAGCAAGGTTCAAAGGCGATGGCGTAAATATAAGGCC
AAGCTGATTGGCATTGATGATGTGCCAGATGCAAGAGGGGATAAAATGAGCCAAGACTCTATGATGAACTAAAG
GGAATGGCGGCACGTGGTCTCAGGGACAACACAAACAAAGGATCTGGGTCAACATTTCCCTTTCTGGGATA
AAAATAATTGATGAGAAAAGTGGGGTAATAGAGCATGAACATCCAGTAAATAAGATTTCTTTTATTGCCCGTGTAT
GTGACAGACAACCGGGCATTGGTTACGTGTGTGGAGGAGAAGGCCAGCATCAGTTTTTTACCATAAAAACCGGG
CAACAGGCTGAACCATTAGTTGTTGATCTTAAAGACCTTTTTCAAGTTATCTATAATGTAAAGAAAAAGGAAGAA
GAAAAGAAAAAGATAGAGGAAGCCAGCAAAGCAGTTGAGAATGGGAGTGAGGCCCTAAGGATTCTAGATGACCAA
ACTAACAACTGAAATCGGGTGTGACCAGATGGATTTGTTTGGGGACATGTCTACACCTCCTGACCTAAATAGT
CCAACAGAAAGCAAAGATATCCTGTTAGTGGATCTAAACTCTGAAATCGACACCAATCAGAATTTCTTTAAGAGAA
AATCCATTCTTAACAAACGGCATCACCTCCTGTTCTCTTCCCTCGACCAACGCCTCAGGCATCCTTCTTGCCCTGAA
AATGCCTTTTCTGCCAATCTCAACTTCTTTCCACCCCTAATCCTGATCCTTTCCGTGACGATCCTTTACACAG
CCAGACCAATCGACACCTTCTTCGTTTGATTCTCTCAATCTCCAGATCAGAAGAAAGAGAATTCGAGTAGCTCG
TCTACTCCGCTGAGTAATGGGCCCCGTAATGGTGTATGTTGACTACTTTGGTCAGCAATTTGACCAGATCTCTAAC
CGGACTGGCAAACAGGAAGCTCAGGCAGGCCCATGGCCCTTTTCAAGTTCGCAAACCCAGCCAGCAGTGAGAACT
CAAAATGGGGTATCTGAAAGAGAACAGAACGGCTTCTCTGTCAAATCCTCCCCGAACCTTTTTGTGGGAAGCCCT
CCCAAAGGACTGTCCATACAGAATGGCGTAAAGCAGGACTTGGAAGCTCTGTCCAGTCTCACCACATGACTCC
ATAGCCATTATCCCACCTCCACAAAGTACCAACCAGGAAGAGGCAGAAGGACTGCTAAGTCTTCAGCCAATGAC
TTGCTTGTCATCAGACATCTTTGCTCCTCCCGTCTCAGAACCTTCAGGCCAGGCGTCACCCACAGGACAACCTACA
GCCCTGCAGCCCCAACCTCTGGATCTCTTCAAAACAAGTGCTCCTGCCCCAGTGGGGCCCCCTGGTGGGTCTAGGT
GGTGTAACTGTCACTCCCTCAGGCAGGACCATGGAACACAGCATCTTTGGTCTTCAATCAGTCCCTTTCAATG
GCTCCGGGAGCCATGATGGGTGGTCAACCTTCAGGTTTTAGTCAGCCCGTCATTTTTGGTACAAGTCCAGCTGTT
TCAGGTTGGAACCAGCCTTCACCCCTTGACGCTCAACTCCCCCTCCAGTGCCGTGTGCTGGGGCCCTTCTGCA
TCTGTGGCACCCAATGCTTGGTCAACAACAAGCCCTTTGGGGAATCCTTTTCAGAGCAATATTTTTCCAGCTCCT
GCTGTGTCCACTCAGCCCCCATCCATGCACCTCTCTCCTGGTCACTCCTCCTCAGCCACCTCCCAGAGCTGGC
CCTCCCAAGGACATCTCCAGTGATGCCTTCACTGCCTTAGACCCACTTGGGGATAAAGAGATCAAGGATGTGAAA
GAAATGTTTAAGGATTTCCAAGTGCAGGACACCTGCTGTGCCCCGCGGAAGGGAGAGCAGACTTCTTCTGGG
ACTTTGAGTGCCCTTGCCAGTTATTTCAACAGCAAGGTTGGCATTCTCAGGAGAATGCAGACCATGATGACTTT
GATGCTAATCAACTATTGAACAAGATCAATGAACCACCAAGCCAGCTCCCAGACAAGTTTCCCTGCCAGTTACC
AAATCTACTGACAATGCATTTGAGAACCCTTTCTTTAAAGATTCTTTTGGTTCATCACAAGCCTCTGTGGCTTCT
TCTCAACCTGTATCTTCTGAGATGTATAGGATCCATTTGGAAATCCTTTTGCC**TAA**ATTCTGAAGTTGGTCTGC
AGACCATCCAGAGGAATAAAAAGTTGGCCTTAGTAGTCAAAAACAAAGCTGATAGCCAGACAGTTCTGATTTCT
TGCCCTTGTTCCAGCTTTGACGTATTATCTGTTGCCTTATTTCTCATTGCCTCTTCTACTTGTAATGCTTTTC
ACTTTCTGTCTAGGTTAAAGCTAACTGAATCTATGGCTTTAAATAAATTAAGATCCTAAACTCTCTAGCTTAAG
TGTAATGAAGTACAGTAGTTTCCCTACTGAACCCTACCTCTTGTGTCCCTGGAACCTTCTAGAACACCTGCCTT
CTACCCTCTGGTTGGGAGATGCAGCCACCACATCCCTTCATATCATACTGTTTTGAATAAATTTCAAATCCTTA
TTGTTTCAAGATTGTTTGGGGTCTGTTTTCAGAGCATAAAACCTAAAGGTTATAGTAGAACAAGGCACCTTCTTA
AAAGAAATCTTGCTTCAGACCATCAGTTACAGAGAATTTCTAAAGTAAATTAAGCAACTACAATCTCTCCTT
AGACACTTTGGAATCTAACCACTTAAGGACCTTTTTAAAGAGATAGCTTCTCTTCTTCTGAAGATCAATTTCTC
CCAAGGCCAAGATTGTCTTTTCTCCATTTCTTGCTAGCTATTGCAATGAGGGAAGAACATTATTATCTCTC
CTCCCTTTTTTTTTCTGATTCTTTTTTCAGTCAGTTTTGCTCCTGGGTTCAAGTAGTATTACCACCCCTTTCACAA
GCAACAGACTCTCACAGGGCAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 96

MSNEVETSATNGQPDQQAAPKAPSKKEKKKGPEKTDEYLLARFKGDGVKYKAKLIGIDDVDPARGDKMSQDSMMK
LKGMAARGRSQGQHKQRIWVNISLSGIKIIDEKTGVIEHEHPVNKISFIARDVTDNRAFGYVCGGEGQHQFFTIK
TGQQAELVVDLKDRLFQVIYNVKKKEEEKKIEEASKAVENGSEALRILDDQTNKLKSGVDQMDLFGDMSTPPDL
NSPTESKDILLVDLNSEIDTNQNSLRENPF LTNGITSCSLPRPTPQASFLPENAFSANLNFFPTPNPDPFRDDPF
TQPDQSTPSSFDSLKSPDQKKENSSSSSTPLSNGPLNGDVDFGQQFDQISNRTGKQEAQAGPWPFSSSQTPAV
RTQNGVSEREQNGFSVKSSPNPFVGSPPKGLSIQNGVKQDLESSVQSSPHDSIAIIPPPQSTKPGRGRRTAKSSA
NDLLASDIFAPPVSEPSGQASPTGQPTALQPNPLDLFKTSAPAPVGPLVGLGGVTVTLPQAGPWNTASLVFNQSP
SMAPGAMMGQPSGFSQPVIFGTSPAVSGWNQPSPF AASTPPPVPVWGPSASVAPNAWSTTSPLGNPFQSNIFP
APAVSTQPPSMHSSLLVTPPQPPPRAGPPKDISSDAFTALDPLGDKEIKDVKEMFKDFQLRQPPAVPARKGEQTS
SGTLSAFASYFNSKVGIPQENADHDDFDANQLLNKINEPPKPAPRQVSLPVTKSTDNAFENPFFKDSFGSSQASV
ASSQPVSSEMYRDPFGNPFA

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FIGURE 97

GCCGGGGAAGTCATGCTCGCTTCACGGAGGCAATAGCTAGCCGGTGTCTGTGGGAGGTTATGTTTATTTGAGACT
TCTCCATCGGGATCGCCTGGTGTACCAAGTGTCCACTGGTACTGAGGTTTGCTGCCTGCCTTCTTGCC**ATG**TCT
AACGAAGTAGAAACAAGTGCAACCAATGGTCAGCCGACCAACAGGCCGCACCAAAAAGCACCCTCAAAGAAGGAA
AAAAAGAAAGGCCCTGAAAAGACAGATGAATATCTCCTAGCAAGGTTCAAAGGCGATGGCGTAAATATAAGGCC
AAGCTGATTGGCATTGATGATGTGCCAGATGCAAGAGGGGATAAAATGAGCCAAGACTCTATGATGAACTAAAG
GGAATGGCGGCACGTGGTCCGTCTCAGGGACAACACAAACAAAGGATCTGGGTCAACATTTCCCTTTCTGGGATA
AAAATAATTGATGAGAAAAGTGGGGTAATAGAGCATGAACATCCAGTAAATAAGATTTCTTTTATTGCCCCTGAT
GTGACAGACAACCGGGCATTTGGTTACGTGTGTGGAGGAGAAGGCCAGCATCAGTTTTTTACCATAAAAACCGGG
CAACAGGCTGAACCATTAGTTGTTGATCTTAAAGACCTTTTTCAAGTTATCTATAATGTAAAGAAAAAGGAAGAA
GAAAAGAAAAAGATAGAGGAAGCCAGCAAAGCAGTTGAGAATGGGAGTGAGGCCCTAAGGATTCTAGATGACCAA
ACTAACAACTGAAATCGGGTGTGACCAGATGGATTTGTTTGGGGACATGTCTACACCTCCTGACCTAAATAGT
CCAACAGAAAGCAAAGATATCCTGTTAGTGGATCTAAACTCTGAAATCGACACCAATCAGAATCTTTAAGAGAA
AATCCATTCTTAAACAAACGGCATCACCTCCTGTTCTCTTCTCGACCAACGCCTCAGGCATCCTTCTTGCCCTGAA
AATGCCTTTTCTGCCAATCTCAACTTCTTTCCACCCCTAATCCTGATCCTTTCCGTGACGATCCTTTACACAG
CCAGACCAATCGACACCTTCTCGTTTGATTCTCTCAAATCTCCAGATCAGAAGAAAGAGAATTCGAGTAGCTCG
TCTACTCCGCTGAGTAATGGGCCCCGTAATGGTGATGTTGACTACTTTGGTCAGCAATTTGACCAGATCTCTAAC
CGGACTGGCAAACAGGAAGCTCAGGCAGGCCCATGGCCCTTTTCAAGTTCGCAAACCCAGCCAGCAGTGAGAAGT
CAAAATGGGGTATCTGAAAGAGAACAGAACGGCTTCTCTGTCAAATCCTCCCCGAACCTTTTGTGGGAAGCCCT
CCCAAAGGACTGTCCATACAGAATGGCGTAAAGCAGGACTTGGAAGCTCTGTCCAGTCCTCACCACATGACTCC
ATAGCCATTATCCCACCTCCACAAAGTACCAACCAGGAAGAGGCAGAAGGACTGCTAAGTCTTCAGCCAATGAC
TTGCTTGCATCAGACATCTTTGCTCCTCCCGTCTCAGAACCTTCAGGCCAGGCGTCACCCACAGGACAACCTACA
GCCCTGCAGCCCCAACCTCTGGATCTCTTCAAACAAGTGCTCCTGCCCCAGTGGGGCCCCCTGGTGGGTCTAGGT
GGTGTAAGTGTACACTCCCTCAGGCAGGACCATGGAACACAGCATCTTTGGTCTTCAATCAGTCCCTTCAATG
GCTCCGGGAGCCATGATGGGTGGTCAACCTTCAGGTTTTAGTCAGCCCGTCATTTTTGGTACAAGTCCAGCTGTT
TCAGGTTGGAACAGCCTTCACCCCTTTCAGCCTCAACTCCCCCTCCAGTGCCGTGTCTGTTGCTGGGGCCCTTCTGCA
TCTGTGGCACCCAATGCTTGGTCAACAACAAGCCCTTTGGGGAATCCTTTTTCAGAGCAATATTTTTCCAGCTCCT
GCTGTGTCCACTCAGCCCCCATCCATGCACCTCTCTCCTGGTCACTCCTCCTCAGCCACCTCCCAGAGCTGGC
CCTCCCAAGGACATCTCCAGTGATGCCTTCACTGCCTTAGACCCACTTGGGGATAAAGAGATCAAGGATGTGAAA
GAAATGTTTAAAGATTTCCAAGTGGCGAGCCACCTGCTGTGCCCCGCGGAAGGGAGAGCAGACTTCTTCTGGG
ACTTTGAGTGCCCTTTGCCAGTTATTTCAACAGCAAGGTTGGCATTCTCAGGAGAATGCAGACCATGATGACTTT
GATGCTAATCAACTATTGAACAAGATCAATGAACCACCAAAGCCAGCTCCCAGACAAGTTTCCCTGCCAGTTACC
AAATCTACTGACAATGCATTTGAGAACCCTTTCTTTAAAGATTCTTTTGGTTCATCACAAGCCTCTGTGGCTTCT
TCTCAACCTGTATCTTCTGAGATGTATAGGGATCCATTTGGAATCCTTTTGCC**TAA**ATTCTGAACTTGGTCTGC
AGACCATCCAGAGGAATAAAAAGGTTGGCCTTAGTAGTCAAAAACAAAGCTGATAGCCAGACAGTTCTGATTTCT
TGCCCTTGTTCCAGCTTTGACGTATTATCTGTTGCCTTATTTCTCATTGCCTCTTCTACTTGTAAGTCTTTCT
ACTTTCTGTCTAGGTTAAAGCTAACTGAATCTATGGCTTTAAATAAATTAAGATCCTAACTCTCTAGCTTAAG
TGTAATGAAGTACAGTAGTTTCCCTACTGAACCCTACCTCTTGTGTCCCTGGAACCTTCTAGAACACCTGCCTT
CTACCCTCTGGTTGGGAGATGCAGCCACCACATCCCTTCATATCATACTGTTTTGAATAAATTTTCAAATCCTTA
TTGTTTCAAGAGTTGTTTGGGGGTTCTGTTTTCAGAGCATAAAACCTAAAGGTTATAGTAGAACAAAGGCACCTTCTTA
AAAGAAATCTTGCTTCAGACCATCAGTTACAGAGAATTTCTTAAAGTAAATTAAGCAACTACAATCTCTCCTT
AGACACTTTGGAATCTAACCACTTAAGGACCTTTTTTAAAGAGATAGCTTCTCTTCTTTCTGAAGATCAATTTCTC
CCAAGGCCAAGATTGTCTTTTCTCCCATTTCTTGCTAGCTATTGCAAATGAGGGAAGAACATTATTCACTCTCTC
CTCCCTTTTTTTTTCTGATTCTTTTTTTCAGTCAGTTTTGCTCCTGGGTTCAAGTAGTATTACCACCTTTTCAAA
GCAACAGACTCTCACAGGGCAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 98

MSNEVETSATNGQPDQQAAPKAPSKKEKKKGPEKTDEYLLARFKGDGVKYKAKLIGIDDPDARGDKMSQDSMMK
LKGMAARGRSQGQHKQRIWVNISLSGIKIIDEKTGVIEHEHPVNKISFIARDVTDNRAFGYVCGGEGQHQFFTIK
TGQQAEPVVDLKDLEFQVIYNVKKKEEEKKKIEEASKAVENGSEALRILDDQTNKLKSGVDQMDLFGDMSTPPDL
NSPTESKDILLVDLNSIDTNQNSLRENPFLLTNGITSCSLPRPTQASFLPENAFSANLNFFPTPNPDPFRDDPF
TQPDQSTPSSFDLSPDQKKENSSSSSTPLSNGPLNGDVDFGQQFDQISNRTGKQEAQAGPWPFSSTQTPAV
RTQNGVSEREQNGFSVKSSPNPFVGSPPKGLSIQNGVKQDLESSVQSSPHDSIAIIPPPQSTKPGRGRRTAKSSA
NDLLASDIFAPPVSEPSGQASPTGQPTALQPNPLDLFKTSAPAPVGPLVGLGGVTVTLPQAGPWNTASLVFNQSP
SMAPGAMMGQPSGFSQPVIFGTSPAVSGWNQSPFAASTPPPVVWGPSASVAPNAWSTTSPLGNPFQSNIFP
APAVSTQPPSMHSSLLVTPPQPPPRAGPPKDISSDAFTALDPLGDKEIKDVKEMFKDFQLRQPPAVPARKGEQTS
SGTLSAFASYFNSKVGIPQENADHDDFDANQLLNKINEPPKPAPRQVSLPVTKSTDNAFENPFFKDSFGSSQASV
ASSQPVSEMYRDPFGNPFA

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FIGURE 99

AGCGCTCAGATACGCGACGCGTAGCAGGCGGGGACCGAACGGGTGCCTCAGTGTCTTCCCCTCCCCTCGCCTGG
CCTCGCCGTCCTCTCCCCGAGCCGGACCGGAACATATGTGATCCCGGAAGTTCCGGGGCCTTTGCTGTGTGGGAT
AAACAGTAATGGCGGAGGCTGCAACTCCCGGAACAACAGCCACAACATCAGGAGCAGGAGCGGCAGCGGCACGG
CGGCAGCAGCCTCCCCACCCCGATCCCCACAGTCACCGCCCCGTCCCTGGGGGCGGGCGGAGGGGGCGGCGGCA
GCGACGGCAGCGGCGGCGGCTGGACTAAACAGGTACCTGCAGGTATTTTATGCATGGGGTTTGTAAGGAAGGAG
ACAACGTGTCGCTACTCGCATGACCTCTCTGACAGTCCGTATAGTGTAGTGTGCAAGTATTTTCAGCGAGGGTACT
GTATTTATGGAGACCGCTGCAGATATGAACATAGCAAACCATTTGAAACAGGAAGAAGCAACTGCTACAGAGCTAA
CTACAAAGTCATCCCTTGCTGCTTCCTCAAGTCTCTCATCGATAGTTGGACCACTTGTGAAATGAATACAGGCG
AAGCTGAGTCAAGAAATTCAAACTTTGCAACTGTAGGAGCAGGTTGAGGAGCTGGGTGAATGCTATTGAGTTTG
TTCCTGGGCAACCCTACTGTGGCCGTACTGCGCCTTCCTGCACTGAAGCACCCCTGCAGGGCTCAGTGACCAAGG
AAGAATCAGAGAAAGAGCAAACCGCCGTGGAGACAAAGAAGCAGCTGTGCCCTATGCTGCAGTGGGAGAGTGCC
GATACGGGGAGAACTGTGTGTATCTCCACGGAGATTCTTGTGACATGTGTGGGCTGCAGCTCCTGCATCCAATGG
ATGCTGCCCAGAGATCGCAGCATATCAAATCGTGCATTGAGGCCCATGAGAAGGACATGGAGCTCTCATTTGCCG
TGCAGCGCAGCAAGGACATGGTGTGTGGGATCTGCATGGAGGTGGTCTATGAGAAAGCCAACCCAGTGAGCGCC
GCTTCGGGATCCTCTCCAACTGCAACCACACCTACTGTCTCAAGTGCATTTCGCAAGTGGAGGAGTGCTAAGCAAT
TTGAGAGCAAGATCATAAAGTCTTGCCAGAATGCCGGATCACATCTAACTTTGTCAATCCAAGTGAGTACTGGG
TGGAGGAGAAAGAAGAGAAGCAGAACTCATTCTGAAATACAAGGAGGCAATGAGCAACAAGGCGTGCAGGTATT
TTGATGAAGGACGTGGGAGCTGCCATTTGGAGGGAACGTGTTTTTACAAGCATGCGTACCCTGATGGCCGTAGAG
AGGAGCCACAGAGACAGAAAGTGGGAACATCAAGCAGATACCGGGCCCAACGAAGGAACCACTTCTGGGAACCTCA
TTGAGGAAAGAGAGAACAGCAACCCCTTTGACAACGATGAAGAAGAGTTGTACCTTTGAGCTGGGCGAGATGT
TGCTTATGCTTTTGGCTGCAGGTGGGACGACGAACCTAACAGACTCTGAAGATGAGTGGGACTTGTTTTCATGATG
AGCTGGAAGATTTTTATGACTTGGATCTATAGCAACCTTGCGTGGCGTGTGAAGTGGTCTGCTGACCTCAGACAG
CAGCTGTCCCCTGTGGTGGTGTGGCAGTGCCTGTGTTCTCTCCTAGGCAGGCCTCTCAACTCCAGGTGCTGTCTCT
AAGAATTTTTACCCAGGGCCTGTCTTCTCAACCCCTCACCTTTCCCTGAGGAGTGTGTTGTTTTCCCTGTTGAAA
AAAGTTACAAAAATAAATCTTAAAGTTAGTTTTTTGTAACACGAATTTAACTGTCAGACAGTTAGTGTAGGTGTG
TTGCGTCATCTGTTTTCAACCAGATTGCATTTATGGACTTTTCACACACTCATTTTGAGGACCCAGGTTCAAAA
GTAAAGCAGTGGCCCTGCTTTGGGGTCCAAGAATAGGAGTGATGGGTGAAGGGACCTAAGCTGGCCAATAGCCC
TCTGCCCCAGACATGGGATGTGGATCCTTGAGGTTTTCTGGTGAAATCTGCACATCTGTGTTTTTATATCTGTTCC
CTACCCTGTAATCCCTACCACGTGCACTTGTTCTGTGGTTTTTGGTCTCTTGTTTAATTGCACACAAGTAATACTA
CTGGGTAACCAGAATCAGGTGTGAATGTGTTGAGATTTTTTACTGTTTTGCATGATAGGAAAATTGAGAAAGAAT
ACGTATAAAAGATAGAGAGGCATAACATCAATGCAGAGTTGGAAGTTGGCTCCCAAGGGCTGACATGGTGTGAGT
GTGTGGGTGTGTGATAAGCTTCTCATCCCTGCATAGATGCAGTATTCTTAGCCTTAGTAGAAAAACCTGGTTTAG
TGGTTTAAGCCTTGTTGTGGCAGATAGATCTTAAAGGGCAAAGCAGTATATTGGTAGTTGTCAATATAGCAGTGCT
AGCTCTGTCTATATAAATAGAGAAATGGGGTTAGCCATAGAGGTTAAACTACCTGGTTATCCCATATAATAACA
CAAACCTGGGTCTTGATACACAGTTGTATTTAATGTTTTACGATCTAGCCTTTCCAGTACAGGCACCTTTCTGAGA
AACCTTTGTCCTCACTTGAGGCATTTTGTGTCGGGTTTTTGTGTTTGTGTTTTGTGGGTATTTGCCTCATTCCAC
CCCTGAGCTTTCAGGTAGACAGACGTGATTCAAACCTCTGTTCTAAGGTGTTTATTGTAGTGGAGTAATGGGTTT
GCAGTGATAAGTCATACTTTCCACCGAAAGGGAGGGCTTGGGAATCCCTGAGATTAGCTAAAGTTAAGTTGTTG
GAAGAATTCCTTGATTGGAAATTGTACCTTTGTGTTTTGTGCTCTGTTTCCCTGAAAATAACTCGGGGATGCTCC
TGGTTTTGTCCATCTACTGCTTTGATTCCCTGGATCCCACCCATTCTTCACTTTAAGAAAAACAATAATTGTT
GCAGAGGTCTCTGTATTTTGACGTGCCCTTTTGTAAGAAGCACTTTCCCAAATAAAACAATTAAAAAAAAAA
AA

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FIGURE 100

MAEAATPGTTATTSGAGAAAATAAAASPTPIPTVTAPSLGAGGGGGGSDGSGGGWTKQVTCRYFMHGVCKEGDNC
RYSHDLSDSPYSVVCKYFQRGYCIYGDRCRYEHSKPLKQEEATATELTTKSSLAASSSLSSIVGPLVEMNTGEAE
SRNSNFATVGAGSEDWVNAIEFVPGQPYCGRTAPSCTEAPLQGSVTKEESEKEQTAVETKKQLCPYAAVGECRYG
ENCVYLHGDSDDMCGLQLLHPMDAAQRSQHIKSCIEAHEKDMELSFVQRSKDMVCGICMEVVYEKANPSERRFG
ILSNCNHTYCLKCIRKWSAKQFESKIIKSCPECRITSNFVIPSEYWVEEKEEKQLILKYKEAMSNKACRYFDE
GRGSCPFGGNCFYKHAYPDGRREEPQRQKVGTSRRYRAQRRNHFWELEERENSNPFDNDEEEVVT FELGEMLLM
LLAAGGDELTDSEDEWDLFHDELEDFYDLDL

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FIGURE 101

AGATGTTTAAAAATACTTTGATXCTCXGTTTCCACCTCTCTTAAATTGTCTTTCCTATGTTAAATATACAGTCA
TCACXTTGCTGAAAAAAGTTTCGCAATGAGAACAATCATCTAAAAXTGGCTGTAAGTACAGGTCAGGCGGTTGCTC
ATGCCTGTAATCCCACCACCTTTGGGAGGCCGAGGCAATTGGATCACCTGAGGTCAGGATTTTGAGACCAGCTTGA
CCAACATGGTGAATCCCATCTCTACTAAAAATACAAAAAATTAGCCGGGTGTGGTGGCACACCCCTGTAATCCC
ACCTACTCAGGAGGCTGAGGCAGGAAAATCCCTTGAACCCAGGAGGCAAAGGTTGCATTGAGCCGAAATAACACC
ACTGCACTCCAGCCTGGACGATAGAGTGAGACCCCATCTCAAAAAAAGAGCAGCTGTGACAAATGCCTGTATTGA
ATTGCAGGTCAGTCTTCCACCTCCACTACCGGTGCCAAAAAAGGGCTGCCCAAAGGAAGCTAAAAGGGATCCA
GCTTTGAATTCTGGTGTCTCTCAAAAGCCTGATCCTGCCAAAACCAAGAATCGCCGCAAAGGAAGCCATCCACT
TCTGATGATTCTGACTCTAATTTTGAGAAAATTGTTTCGAAAGCAGTCACAAGCAAGGTGAGTGTGATCCTAGT
CAGTCCTTTTGCTGTAGATGTTCTGAAACACGTAACCTAAGCCATTGTTCTTAAAAATTTGGCATATCTTTAAGAA
AATTAACCTCTCATATTCTGTTAGCTTTTACTGTACATATTTAGTTTTAAACAAGTTAAATATGCCACTTATTTGG
CCAATGGAAGAGTTGGCCTTAGATCTGCTTCTTATTACTTGGTAGAAAAATAGAAACTCCTTGAATATAGTGTCT
TGATACATTTTTTTTACATTACAATTATGTTGTGAGATTTACAATGTGCAAGTTACCTGGGCTTTTTCTCTTTTAGA
AATCCAAGGGGGAGAGTGATGACTTCCATATGGACTTTGACTCAGCTGTGGCTCCTCGGGCAAATCTGTACGGG
CAAAGAAACCTATAAAGTACCTGGAAGAGTCAGATGAAGATGATCTGTTTTAAATGTGAGGCGATTATTTTAAG
TAATTATCTTACCAAGCCCAAGACTGGTTTTTAAAGTTACCTGAAGCTCTTAACCTCCTCCCTCTGAATTTAGTT
TGGGGAAGGTGTTTTTAGTACAAGACATCAAAGTGAAGTAAAGCCCAAGTGTTCTTTAGCTTTTTATAATACTGT
ATAAATAGTGACCATCTCATGGGCATTGTTTTCTTCTGCTTTGTCTGTGTTTTGAGTCTGCTTCTTTTGTCTT
TAAAACCTGATTTTTAAGTTCTTCTGAACTGTAGAAATAGCTATCTGATCACTTCAGCGTAAAGCAGTGTGTTA
TTAACCATCCACTAAGCTAAACTAGAGCAGTTTGATTTAAAAGTGTCACCTTCTCCTCTTTTCTACTTTTCTAGTA
GATATGAGATAGAGCATAATTATCTGTTTTATCTTAGTTTTATACATAATTTACCATCAGATAGAACTTTATGGT
TCTAGTACAGATACTCTACTACACTCAGCCTCTTATGTGCCAAGTTTTTCTTTAAGCAATGAGAAATTGCTCATG
TTCTTCATCTTCTCAAATCATCAGAGGCCGAAGAAAAACACTTTGGCTGTGTCTATAACTTGACACAGTCAATAG
AATGAAGAAAAATTAGAGTAGTTATGTGATTATTTTACGCTCTTGACCTGTCCCCTCTGGCTGCCTCTGAGTCTGAA
TCTCCCAAAGAGAGAAACCAATTTCTAAGAGGACTGGATTGCAGAAGACTCGGGGACAACATTTGATCCAAGATC
TTAAATGTTATATTGATAACCATGCTCAGCAATGAGCTATTAGATTCATTTTGGGAAATCTCCATAATTTCAATT
TGTAACCTTTGTAAAGACCTGTCTACATTGTTATATGTGTGTGACTTGAGTAATGTTATCAACGTTTTTGTAAT
ATTTACTATGTTTTTCTATTAGCTAAATTCACAATTTTGTACTTTAATAAAATGTTCTAACATTGAAA

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FIGURE 102

TAGCTGGATTCCAGCCATTGCTGCAGCTGCTCCACAGCCCTTTTCAGGACCCAAACAACCGCAGCCGCTGTTCCC
AGGATGGTGATCCGTGTATATATTGCATCTTCCTCTGGCTCTACAGCGATTAAGAAGAAACAACAAGATGTGCTT
GGTTTCCTAGAAGCCAACAAAATAGGATTTGAAGAAAAAGATATTGCAGCCAATGAAGAGAATCGGAAGTGGATG
AGAGAAAATGTACCTGAAAATAGTCGACCAGCCACAGGTTACCCCTGCCACCTCAGATTTTCAATGAAAGCCAG
TATCGCGGGGACTATGATGCCTTCTTTGAAGCCAGAGAAAATAATGCAGTGTATGCCTTCTTAGGCTTGACAGCC
CCACCTGGTTCAAAGGAAGCAGAAGTGCAAGCAAAGCAGCAAGCATGAACCTTAAGCACTGTGCTTTAAGCATCC
TGAAAAATGAGTCTCCATTGCTTTTATAAAATAGCAGAATTAGCTTTGCTTCAAAGAAAATAGGCTTAATGTTGA
AATAATAGATTAGTTGGGTTTTACATGCAAACATTCAAAATGAATACAAAATTTAAATTTGAACATTATGGTGA
TTATGGTGAGGAGAATGGGATATTAACATAAAATTATATTAATAAGTAGATATCGTAGAAATAGTGTGTTACCT
GCCAAGCCATCCTGTATACACCAATGATTTTACAAAGAAAACACCCTTCCCTCCTTCTGCCATTACTATGGCAAC
TTAAGTGTATCTGCAGCTCTACATTA AAAAGGAGAAAAGAGAAATAACCTGTCTCTCATTCTTAAGTTGCCTCATT
AATTTTCATGAACAAGAATATGTACCTTTTTGATGCTATATTACTGCGATTAAAAAAGTTCTTGCAGGTAATGTT
TATGTATAGTTAAACGTTTGAATTTCTTATCGTAATTATAACATTCCCATTCTTTGTAGATGAAACTCTACATAT
GAACCACAGATTTTCTGAGCTTCTAAATGTAGCCTTTTCATTGCACATTTCAGTGATCAGAATAGATATCCTTTTA
CACGCACAAAAGCAATAGATTTCATTTCAGTGGACAAGTTCCCTTGTTTAACTACACAGCTATGATGGAATCATATAT
CCAAGTTCCTTGCCTCAGTGAAATATGCATATGTATATCATGAAGTGGGATGCCAAGTAAGCTTAAATGCATTCT
TCTAGCAAAGAGATTAGACTTTTAAATAACTCTTATAAAACAGGTTGGCGATCATTTCCCAAGATTGGTTTCCCT
TGAGTTTTTGTAAAACAAATCTTAGTAGTTTTGCCCGTTTAAACAACCTCACAATCGTAAATGCTACTATTCCCT
AAGATATCTTACCTTTTTATTTTCAAGTTTAGCCATGTATTGTATGAGTGTATTAGTCTAAGCAGTGAGAATCTTTT
CTATGCCTCTATTCCAGCAAAAAGTAGAAGTATCAAATAAAAAGGGCAACTTTTAAATATTAAGCCTGAAGACT
TCTAAAAAGACAAGAAACATGGCCTAAATAACCAACATAGATTTACATAGTAAGTTTCACACTACCTTATTACCA
AAAGCAAACACCTCTTACTTTAAACTACATTATCATGTATATCTATTGTATGCTGGTCTTTACTTTTTGCCAAAA
TCAACATATAATGAAGAGATGCCTTTGTTTGATGAGATTCAAACCTTGATGCTATGCTTTAAATAAACTCAGTAC
TTTTAGAAACATAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 103

MVIRVYIASSSGSTAIAKKKQDVLGFLEANKIGFEEKDIAANEENRKWMRENVPENSRPATGYPLPPQIFNESQY
RGDYDAFFEARENNAVYAFLGLTAPPGSKEAEVQAKQQA

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FIGURE 104

GCCGCGCCGGCTCTGGGCACTCAGCATCGTTTCCTTTTCCTCCGCTGGAGCAGCT**ATGG**CGGCGGTGAAGACCTT
GAACCCCAAGGCCGAGGTGGCCCGAGCGCAGGCGGCGCTGGCGGTCAACATCAGCGCAGCGCGGGGTCTGCAGGA
CGTGCTAAGGACCAACCTGGGGCCCAAGGGCACCATGAAGATGCTCGTTTCTGGCGCTGGAGACATCAAACCTTAC
TAAAGACGGCAATGTGCTGCTTCACGAAATGCAAATTC AACACCCAACAGCTTCCTTAATAGCAAAGGTAGCAAC
AGCCAGGATGATATAACTGGTGATGGTACGACTTCTAATGTCCTAATCATTGGAGAGCTGCTGAAACAGGCGGA
TCTCTACATTTCTGAAGGCCTTCATCCTAGAATAATCACTGAAGGATTTGAAGCTGCAAAGGAAAAGGCCCTTCA
GTTTTTGGAAGAAGTCAAAGTAAGCAGAGAGATGGACAGGGAAACACTTATAGATGTGGCCAGAACATCTCTTCG
TACTAAAGTTCATGCTGAACTTGCAGATGTCTTAACAGAGGCTGTAGTGGACTCCATTTTGGCCATTAAAAAGCA
AGATGAACCTATTGATCTCTTCATGATTGAGATCATGGAGATGAAACATAAATCTGAAACTGATACAAGCTTAAT
CAGAGGGCTTGTTTTGGACCACGGAGCACGGCATCCTGATATGAAGAAAAGGGTGGAGGATGCATACATCCTCAC
TTGTAACGTGTCATTAGAGTATGAGAAAACAGAAGTGAATTCTGGCTTTTTTACAAGAGTGCAGAAGAGAGAGA
AAAACCTCGTGAAAGCTGAAAAGAAATTCATTGAAGATAGGGTTAAAAAATAATAGAAGCTGAAAAGGAAAGTCTG
TGGCGATTTCAGATAAAGGATTTGTTGTTATTAATCAAAAGGGAATTGACCCCTTTTCCTTAGATGCTCTTTCAA
AGAAGGCATAGTCGCTCTGCGCAGAGCTAAAAGGAGAAATATGGAGAGGCTGACTCTTGCTTGTTGGTGGGGTAGC
CCTGAATTCCTTTTGACGACCTAAGTCCTGACTGCTTGGGACATGCAGGACTTGTATATGAGTATACATTGGGAGA
AGAGAAGTTTACCTTTATTGAGAAATGTAACAACCCCTCGTTCTGTTCACATTATTGATCAAAGGACCAAATAAGCA
CACACTCACTCAGATCAAAGATGCAGTGAGGGACGGCTTGAGGGCTGTCAAAAATGCTATTGATGATGGCTGTGT
GGTTCCAGGTGCTGGTGCCGTGGAAGTGGCAATGGCAGAAGCCCTGATTAAACATAAGCCAGTGTAAGGGCAG
GGCACAGCTTGGAGTCCAAGCATTGCTGATGCATTGCTCATTATTCCCAAGGTTCTTGCTCAGAACTCTGGTTT
TGACCTTCAGGAAACATTAGTTAAAATTCAAGCAGAACATTCAGAATCAGGTCAGCTTGTTGGGTGTGGACCTGAA
CACAGGTGAGCCAATGGTGGCAGCAGAAGTAGGCGTATGGGATAACTATTGTGTAAAGAAACAGCTTCTTCACTC
CTGCACTGTGATTGCCACCAACATTCTCTTGTTGATGAGATCATGCGAGCTGGAATGTCTTCTCTGAAAGGT**TC**
AATTGAAGCTTCCTCTGTATCTGAATCTTGAAGACTGCAAAGTGATCCTGAGGATTACAGCTGTGGAATTTTTGT
CCAAGCTTCAAATAATTTTGAAAGAAATTTTCCCATATGAAAAAAGGAGAGAACTGGCATCTGTTGAAATTTG
GAAGTTCTGAAATTATAGTATTTTTAAAAATTGCACTGAAGTGATACACATAAAGCAGGTCTTTTATCCAGTGA
ACAGGATGTTTTGCTTTAGCAGCAGTGACATAAAATTCATGTTAGATAAGCATATGTTACTTACCTTGTTATTA
AATATTTCTTGAAAAGCAAATTTTAAATGGTTAATTTTATGTGGACGTATGTTAAATTATCCAACTACCTATTG
TTAAGCATTTGGTTTTAAAAATTTTATGCTAATATAAATGCTCAAGTAATTTAAAAATATTGAAAGCATCCCTGTT
GGTATAAATTTCTGAGTAAATGCATTGGATCAGTTGGACTTTGAACGCCCTTTGAAATGGCTTTGCTAAAATGCT
CCCGCCACAAAGTTGTAGGAAATGGGAAGAGGAGTCAACTAGAGGCAAGGGAGTTGAGAGAGCTGCAACTGTAAA
GGGCAAGAACAGGCAGAGGTAAAAAGATGATGGAAGGTGTGGTGACTAAGGGCCACGGTTATTGGGTGAAATTTG
AGATGTAGGCCAACTGTATTTCAAGCTTCTGAACTTAAGGCAAAATATTCATCGCAAAGTCTCTAGCGTCATAT
TTTTCTCACCCAAATTACGTTTCCACGAGTTATTATATATAGTTGGTCTATCTCTGCAGTCCTTGAAGGTGAAGT
TGTGTGTTACTAGGCTGTGTTTTGGGATGTCAGCAGTGGCCTGAAGTGAGTTGTGCAATAAATGTTAAGTTGAAA
CCTCAAAAAAA

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FIGURE 105

MAAVKTLNPKAEVARAQAALAVNISAARGLQDVLRTNLGPKGTMKMLVSGAGDIKLTGDGNVLLHEMQIQHPTAS
LIAKVATAQDDITGDGTTSNVLIIGELLKQADLYISEGLHPRIITEGFEEAKEKALQFLEEVKVSREMDRETLID
VARTSLRTKVHAELADVLTEAVVDSILAIKKQDEPIDLFMIEIMEMKHKSETDTSLIRGLVLDHGARHPDMKKRV
EDAYILTCNVSLEYEKTEVNSGFFYKSAEEREKLVKAERKFIEDRVKKIIEKRVKVCSDKGFVVINQKGIDPF
SLDALSKEGIVALRRARRNMRRLTACGGVALNSFDDLSPDCLGHAGLVYEYTLGEEKFTFIEKCNNPRSVTLL
IKGPNKHTLTQIKDAVRDGLRAVKNAIDDGCVVPGAGAVEVAMAEALIKHKPSVKGRAQLGVQAFADALLIIPKV
LAQNSGFDLQETLVKIQAEHSESGQLVGVDLNTGEPMVAAEVGVWDNYCVKKQLLHSCVTIATNILLVDEIMRAG
MSSLKG

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FIGURE 106A

GGCACGAGCGGCGGAGGCAGTGTCTCCCGGTCGCGCGTGAGGTCGGTCGCTCAGAGCTGCTGGGCGCAGTTTCT
CCGCCTGCTGCTTCGGCGCGGCTGTATCGGCGAGCGAGCGAGTTCCCGCGAGTTCTCGGTGGCGCTCCCCCTTC
TTTCAGTCTCCACGGACTGGCCCCCTCGTCCTTCTACTTGACCGCTCCCGTCTTCCGCCGCCTTCTGGCGCTTTCC
GTTGGGCCGATTCCCGCCCGCTTCTCCTGCTTCCCATCGAAGCTCTAGAAATGAATGTTTCCATCTCTTCAGAG
ATGAACCAGATTATGATGCATCATTATCACAGAAGAAATTCGTGTCTATAGCTTTTAAGGACTTGATTACATCAT
TTTCAAGCCTGATAGTTTTTGAATCACCATTAGAGCTTAAGACACACCTGCCTTCATTTCAACCACCTGTCTTCA
TACCCTGACGAAGTGCACCTTTTAACACTCCTTTGTCTTGGATTACTTAAGAGTTCCAGAAATACATTTGCCA
CCAACAGAGTAGCCAAATTTATAAGGAAAAATGATTCCCAATGGATATTTGATGTTTGAGGATGAAAATTTTATT
GAGTCTTCTGTTGCCAAATTAATGCCCTGAGGAAAAGTGGCCAGTTCTGTGATGTTTCGACTTCAGGTCTGTGGC
CATGAAATGTTAGCACACAGAGCAGTGCTAGCTTGCTGCAGTCCCTATTTATTTGAAATCTTTAATAGTGATAGT
GATCCTCATGGAATTTCTCACGTTAAATTTGATGATCTCAATCCAGAAGCTGTTGAAGTCTTGTTGAATTATGCC
TACACTGCTCAGTTGAAAGCAGATAAGGAATTGGTAAAAGATGTTTATTCTGCAGCAAAAAAGCTGAAGATGGAT
CGAGTAAAGCAGGTTTGTGGTGATTATTTACTGTCTAGAATGGATGTTACCAGCTGCATCTCTTACCGAAATTTT
GCAAGTTGTATGGGAGACTCCCGTTTGTGAATAAGGTTGATGCTTATATTTCAGGAGCATTGTTTACAAATTTCT
GAAGAGGAGGAGTTTCTTAAGCTTCCAAGGCTAAAGTTGGAGGTAATGCTTGAAGATAATGTTTGCTTGCCAGC
AATGGCAAATTATATACAAAGGTAATCAACTGGGTGCAGCGTAGCATCTGGGAGAATGGAGACAGTCTGGAAGAG
CTGATGGAAGAGGTTCAAACCTTGACTACTCAGCTGATCACAAGCTGCTTGATGGGAACCTACTAGATGGACAG
GCTGAGGTGTTTGGCAGTGATGATGACCACATTAGTTTGTGCAGAAAAAGCCACCACGTGAGAATGGCCATAAG
CAGATAAGTAGCAGTTCAACTGGATGTCTCTCTTCTCCAAATGCTACAGTACAAAGCCCTAAGCATGAGTGGA
ATCGTTGCTTCAGAAAAGACTTCAAATAACACTTACTTGTGCCTGGCTGTGCTGGATGGTATATTCTGTGTCATT
TTTCTTCATGGGAGAAACAGCCACAGAGCTCACCAACAAGTACTCCAAACTAAGTAAGAGTTTAAGCTTTGAG
ATGCAACAAGATGAGCTAATCGAAAAGCCCATGTCTCCTATGCAGTACGCACGATCTGGTCTGGGAACAGCAGAG
ATGAATGGCAAACCTCATAGCTGCAGGTGGCTATAACAGAGAGGAATGTCTTCGAACAGTCGAATGCTATAATCCA
CATAACAGATCACTGGTCCTTTCTTGCTCCCATGAGAACACCAAGAGCCCGATTTCAAATGGCTGTACTCATGGGC
CAGCTCTATGTGGTAGGTGGATCAAATGGCCACTCAGATGACCTGAGTTGTGGAGAGATGTATGATTCAAACATA
GATGACTGGATTCTGTTCAGAAATTGAGAACTAACCGTTGTAATGCAGGAGTGTGTGCTCTGAATGGAAAGTTA
TACATCGTTGGTGGCTCTGATCCATATGGTCAAAAAGGACTGAAAAATTGTGATGTATTTGATCCTGTAACAAAG
TTGTGGACAAGCTGTGCCCTCTTAACATTTCGAGACACCAGTCTGCAGTCTGTGAGCTTGGTGGTTATTTGTAC
ATAATCGGAGGTGCAGAACTTGGAATTGTCTGAACACAGTAGAACGATACAACTCTGAAAATAATACCTGGACT
TTAATTGCACCCATGAATGTGGCTAGGCGAGGAGCTGGAGTGGCTGTCTTAATGGAAAACGTTTGTATGTGGT
GGCTTTGATGGTTCTCATGCCATCAGTTGTGTGGAAATGTATGATCCAACCTAGAAATGAATGGAAGATGATGGGA
AATATGACTTCACCAAGGAGCAATGCTGGGATTGCAACTGTAGGGAACACCATTATGCAGTGGGAGGATTTCGAT
GGCAATGAATTTCTGAATACGGTGGAAGTCTATAACCTTGAGTCAAATGAATGGAGCCCTATACAAAGATTTTC
CAGTTTTTAAACAAATTTAAGACCCTCTCAAACCTAACAGGCTTAGTGATGTAATTATGGTTAGCAGAGGTACACTTG
TGAATAAAGAGGGTGGGTGGGTATAGATGTTGCTAACAGCAACACAAAGCTTTTGATATTGCATACTATTAAAC
ATGCTGTACATACTTTTTGGGTTTATTTGGAAAGGAATGCAAAGATGAAGGTCTGTTTTGTGTACTTTTAAGACT
TTGGTTATTTTACTTTTTGGAAAAGAATAAACCAAGAATTGATTGGGCACATCATTTCAAGAAGTCCCTCTCCT
CCACATTTGTTTTGCCAATTTGCACATTAAATGACTCTTCCCTCAAATGTGTACTATGGGGTAAAAGGGGTAGGG
TTTAAAGATGTAGACAGTTGGGTTTTTTAAGGGCCCTTTTTCAATAACTGGAACACTCTATAACAAAGGATACTT
ATTTAAATAGATGACATTGACTATTTTTGTTTTATTTAAAGGAAGCTTACATGCCTACCAATATTTAATCTTTT
ATGATTGCCTTTTTATAACTTTTTATATTCTCAGCAGAGTGCTTTACCAATTGAAGTAAAATGTGGCAGGCTGGA
GTTATTGAAGCAGAGTGCGAGTCTTCAGTTTGCAGAGTAGGGGTCTGTCTTTTAACTCTGAGTGCAAACCTTCAG
AGTTCCTTGCTTGGCTGCAGTTTTTTTCCCTTCAAGAATGCAGTACTAACATTTATTTGAGTGGAGTTACTGAACA
GTAACATAGCTGTGATTTTTTGGTATTTGAAACACTGGTTTTAAATATTTTGACTTGTGAGGGTATGTTTTATAT
AGCAAGACATTATATAGCAGTAAAAAATGGTGTTTTATCTTCTATATAATTCCTGTTTTTATTATTAAACAAACA
GTCCTAAATAGCAGCCCTCAATTGTGAAAAAATTTACTTTAACTACATTAGGTTGTGAATGCAGGTTTTATCAG
AACTATGTTTTTGTTCAGTTTATCTGTTTCATATGGATAAATATTGGTTGGGATGACTTGGTGTCTAATGTGTAGT
GCTACACACCTAACTTATGGGGCCAAAATAGCATGCTCTAATGCTTGCTGCTGATTTAAACACATTAAAGGTACT

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FIGURE 106B

TTGCAGGAAATCCTTGCACCATGGGATTAATATCCAATTGCTGCTTGTACACTCATTCACTACTAAAAGTTTTGA
GAAATTTTTTTTTTCCAGTAATGAGCTTAAGAAATTTGTGGAAAATAACTCACCTGGCATCTTACATCTGAAATAA
GGAATGATATAAGGTTTTTTTTTCTCACAGAAGATGAAGCACACAGGAACCTAATGGGCCAACTGGGATGAGGTG
ACTATTCTGAGATGACTATTCAGTGGCTAACTTGGGTTAGGAAGAAAATAATTAGGTATTTTCTCCAAATGTTCA
CTGGTACTCTGCCACTTTATTTCTCTCATCTGTTACACAAAGAACCACCAGGAAAGCAAATCAGTTTGGTTGGTA
ACTCTGTAATTCCTAACTATCACTGGTTTGGTTCTGGACTAAAACCTACATTGACAGATTGAATTTGCCTAATATG
ATGACTGTTTTTAATATGGATCTGTATGTGTTCTATTTCAGCCCAAGGAAATAAAATTTTAGTTGAGGATTCAAAA
AAAAAAAAAAAA

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FIGURE 107

MIPNGYLMFEDENFIESSVAKLNALRKSGQFCDVRLQVCGHEMLAHRVILACCSPYLFEIFNSDSDPHGISHVKF
DDLNPEAVEVLLNYAYTAQLKADKELVKDVYSAKKLKMDRVKQVCGDYLLSRMDVTSCISYRNFASCMGDSRL
NKVDAYIQEHLQISEEEFLKLPRLKLEVMLEDNVCLPSNGKLYTKVINWVQRSIWENGDSLEELMEEVQTLYY
SADHKLLDGNLLDGQAEVFGSDDDHQFVQKKPPRENGHKQISSSSTGCLSSPNATVQSPKHEWKIVASEKTSNN
TYLCLAVLDGIFCVIFLHGRNSPQSSPTSTPKLSKSLSFEMQQDELIEKPMSPMQYARSGLGTAEMNGKLIAGG
YNREECLRTVECYNPHTDHSFLAPMRTPRARFQMAVLMGQLYVVGGSNGHSDDLSCGEMYDSNIDDWIPVPELR
TNRCNAGVCALNGKLYIVGGSDPYGQKGLKNCDVFDPVTKLWTSCAPLNIRRHQSAVCELGGYLYIIGGAESWNC
LNTVERYNPENNTWTLIAPMNVARRGAGVAVLNGKLFVCGGFDGSHAISCVEMYDPTRNEWKMMGNMTSPRSNAG
IATVGNTIYAVGGFDGNEFLNTVEVYNLESNEWSPTYTKIFQF

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FIGURE 108A

CGAGACGGAAGCGGGCTGGGAGGCGTCGGCGGCGGCAGCGCACGTGGTGACGTGCGAGGGGGTGCGGCGCGAGCG
GTCGGCGGCGGCGGAGGCAGTGTCTCCCGTTCGCGCGTGGAGGTGCGTTCAGAGCTGCTGGGCGCAGTTTCT
CCGCCTGCTGCTTCGGCGCGGCTGTATCGGCGAGCGAGCGAGTTCCCGCGAGTTCTCGGTGGCGCTCCCCCTTC
TTTCACTCTCCACGGAAGTGGCCCCCTCGTCTTCTACTTGACCGCTCCCGTCTTCCGCCGCTTCTGGCGCTTTCC
GTTGGGCGGATTCCCGCCCCGCTTCTCTGCTTCCCATCGAAGCTCTAGAAATGAATGTTTCCATCTCTTCAGAG
ATGAACCAGATTATGATGCATCATTATCACAGAAGAAATTCGTGTCTATAGCTTTTAAGGACTTGATTACATCAT
TTTCAAGCCTGATAGTTTTTGAATCACCATTAGAGCTTAAGACACACCTGCCTTCATTTCAACCACCTGTCTTCA
TACCCTGACGAAGTGCACCTTTTAACACTCCTTTGTCCTTGGATTACTTAAGAGTTCCCAGAAATACATTTGCCA
CCAACAGAGTAGCCAAATTTATAAGGAAAAATGATTCCCAATGGATATTTGATGTTTGAGGATGAAAATTTTATT
GAGTCTTCTGTTGCCAAATTAATGCCCCTGAGGAAAAGTGGCCAGTTCTGTGATGTTGACTTCAGGTCTGTGGC
CATGAAATGTTAGCACACAGAGCAGTGTAGCTTGCTGCAGTCCCTATTTATTTGAAATCTTTAATAGTGATAGT
GATCCTCATGGAATTTCTCACGTTAAATTTGATGATCTCAATCCAGAAGCTGTTGAAGTCTTGTTGAATTATGCC
TACACTGCTCAGTTGAAAGCAGATAAGGAATTGGTAAAAGATGTTTATTCTGCAGCAAAAAAGCTGAAGATGGAT
CGAGTAAAGCAGGTTTGTGGTGATTATTTACTGTCTAGAATGGATGTTACCAGCTGCATCTCTTACCGAAATTTT
GCAAGTTGTATGGGAGACTCCCGTTTGTGAATAAGGTTGATGCTTATATTCAGGAGCATTTGTTACAAATTTCT
GAAGAGGAGGAGTTTCTTAAGCTTCCAAGGCTAAAGTTGGAGGTAATGCTTGAAGATAATGTTTGCTTGCCGAGC
AATGGCAAATTAATACAAAGGTAATCAACTGGGTGCAGCGTAGCATCTGGGAGAATGGAGACAGTCTGGAAGAG
CTGATGGAAGAGGTTCAAACCTTGTAATACTCAGCTGATCACAAGCTGCTTGATGGGAACCTACTAGATGGACAG
GCTGAGGTGTTTGGCAGTGATGATGACCACATTCAGTTTGTGCAGAAAAAGCCACCACGTGAGAATGGCCATAAG
CAGATAAGTAGCAGTTCAACTGGATGTCTCTCTTCTCAAATGCTACAGTACAAAGCCCTAAGCATGAGTGGAAA
ATCGTTGCTTCAGAAAAAGACTTCAAATAACACTTACTTGTGCTGGCTGTGCTGGATGGTATATTCTGTGTCATT
TTTCTTCATGGGAGAAACAGCCACAGAGCTCACCACAAGTACTCCAAAATAAGTAAGAGTTTAAAGCTTTGAG
ATGCAACAAGATGAGCTAATCGAAAAGCCCATGTCTCCTATGCAGTACGCACGATCTGGTCTGGGAACAGCAGAG
ATGAATGGCAAACCTCATAGCTGCAGGTGGCTATAACAGAGAGGAATGTCTTCGAACAGTCGAATGCTATAATCCA
CATAAGATCACTGGTCCCTTTCTTGCTCCCATGAGAACACCAAGAGCCCGATTTCAAATGGCTGTACTCATGGGC
CAGCTCTATGTGGTAGGTGGATCAAATGGCCACTCAGATGACCTGAGTTGTGGAGAGATGTATGATTCAAACATA
GATGACTGGATTCTGTTCAGAAATGAGAACTAACCGTTGTAATGCAGGAGTGIGTGCTCTGAATGGAAAGTTA
TACATCGTTGGTGGCTCTGATCCATATGGTCAAAAAGGACTGAAAAATTGTGATGTATTGATCCTGTAACAAAG
TTGTGGACAAGCTGTGCCCTCTTAACATTCCGAGACACCAGTCTGCAGTCTGTGAGCTTGGTGGTTATTTGTAC
ATAATCGGAGGTGCAGAACTTGGAAATGTCTGAACACAGTAGAACGATACAATCCTGAAAAATAACCTGGACT
TTAATTGCACCCATGAATGTGGCTAGGCGAGGAGCTGGAGTGGCTGTTCTTAATGGAAAAGTGTGTATGTGGT
GGCTTTGATGGTTCTCATGCCATCAGTTGTGTGGAAATGTATGATCCAACCTAGAAATGAATGGAAGATGATGGGA
AATATGACTTCACCAAGGAGCAATGCTGGGATTGCAACTGTAGGGAACACCATTTATGCAGTGGGAGGATTGAT
GGCAATGAATTTCTGAATACGGTGGAAAGTCTATAACCTTGAGTCAAATGAATGGAGCCCCCTATACAAAGATTTTC
CAGTTTTTAAACAAATTTAAGACCCTCTCAAACCTAACAGGCTTAGTGATGTAATTATGGTTAGTAGAGGTACACTTG
TGAATAAAGAGGGTGGGTGGGTATAGATGTTGCTAACAGCAACACAAAGCTTTTGCATATTGCATACTATTAAAC
ATGCTGTACATACTTTTTTGGGTTTATTTGGAAAGGAATGCAAGATGAAGGTCTGTTTTGTGTACTTTTAAAGACT
TTGGTTATTTTACTTTTTTGGAAAAAGATAAACCAAGAATTGATTGGGCACATCATTTCAAGAAGTCCCCCTCTCT
CCACATTTGTTTTGCCAATTTGCACATTAAATGACTCTTCCCTCAAATGTGTACTATGGGGTAAAAGGGGTAGGG
TTTAAAGATGTAGACAGTTGGGTTTTTTAAGGGCCCTTTTTCAATAACTGGAACACTCTATAACAAAGGATACTT
ATTTAAATAGATGACATTGACTATTTTTGTTTTTATTTAAAGGAAGCTTACATGCCTACCAATATTTAATCTTTT
ATGATTGCCTTTTTTATAACTTTTTATATTCTCAGCAGAGTGCTTTACCAATTGAAGTAAAAATGTGGCAGGCTGGA
GTTATTGAAGCAGAGTGGCAGTCTTCAGTTTGCAGAGTAGGGGTCTGTCTTTTAAACTCTGAGTGCAAACCTTCAG
AGTTCCTTGCTTGGCTGCAGTTTTTTTCCCTTCAAGAATGCAGTACTAACATTTATTTGAGTGGAGTTACTGAACA
GTAACATAGCTGTGATTTTTTGGTATTTGAAACACTGGTTTTAAATATTTTACTTGTGAGGGTATGTTTTATAT
AGCAAGACATTATATAGCAGTAAAAAATGGTGTTTTATCTTCTATATAATTCCTGTTTTTATTATTAAACAAACA
GTCCTAAATAGCAGCCCTCAATTGTGAAAAATTTACTTTAAACTACATTAGGTTGTGAATGCAGGTTTTATCAG
AACTATGTTTTTGTTCAGTTTATCTGTTTCATATGGATAAATATTGGTTGGGATGACTTGGTGTCTAATGTGTAGT

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FIGURE 108B

GCTACACACCTAACTTATGGGGCCAAAATAGCATGTCCTAATGCTTGCTGCTGATTAAACACATTAAAGGTACT
TTGCAGG

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FIGURE 109

MIPNGYLMFEDENFIESSVAKLNALRKSGQFCDVRLQVCGHEMLAHRAVLACCSPYLFEIFNSDSDPHGISHVKF
DDLNPEAVEVLLNYAYTAQLKADKELVKDVYSAAKKLKMDRVKQVCGDYLLSRMDVTSCISYRNFA\$CMGDSRLL
NKVDAYIQEHLLQISEEEEFLLKLPRLKLEVMLEDNVCLPSNGKLYTKVINWVQRSIWENGDSLEELMEEVQTLYY
SADHKLLDGNLLDGQAEVFGSDDDHQFVQKKPPRENGHKQISSSSTGCLSSPNATVQSPKHEWKIVASEKTSNN
TYLCLAVLDGIFCVIFLHGRNSPQSSPTSTPKLSKSLSFEMQQDELIKPMSPMQYAR\$GLTAEMNGKLIAGG
YNREECLRTVECYNPHTDHSFLAPMRTPRARFQMAVLMGQLYVVGGSNGHSDDLSCGEMYDSNIDDWIPVPELR
TNRCNAGVCALNGKLYIVGGSDPYGQKGLKNCDVFDVTKLWTSCAPLNIRRHQSAVCELGGYLYIIIGGAESWNC
LNTVERYNPENNTWTLIAPMNVARRGAGVAVLNGKLFVCGGFDGSHAI\$CVEMYDPTRNEWKMMGNMTSPRSNAG
IATVGNTIYAVGGFDGNEFLNTVEVYNLESNEWSPTYTKIFQF

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FIGURE 110

GAGTTCCAGCAGTCCGCGAGCTGCCGTCCGCGGGGGGGCGGGCCGGGCACCCCGGGGCGCGGAGGAGCG
CTCCTCGCTTCTCTCCTTCCCCCTGCCGCACTCCGCCGGACCCTCCCGCCGGCCCGCGCCGCTGCACTCGCCCT
CTCCTCTCGCCCCCGGCAAACCTTTCGGCCCCCTCCCCGCCCTCGCCCGTTATTTCGTCTGTGGCTCAAGCCCGGCC
ACGCCGCCCCAAGGGCTCCTCCCGACCTCCCGGCCTGCCGCTCCGGCCACTGCGGGATCCAGAAACATGTCGACC
ACACTTCTGTCCGCCTTCTACGATGTCGACTTCTTGTGCAAGACAGAGAAATCCCTGGCCAACCTCAACCTGAAC
AACATGCTGGACAAGAAGGCGGTGGGGACGCCTGTGGCCGCCGCCCCCAGCTCGGGCTTCGCGCCGGGATTCTC
CGACGGCACTCGGCCAGCAACCTGCATGCACTCGCCACCCCGCGCCAGCCCCGGCAGCTGCTCGCCCAAGTTC
CCGGGCGCCGCTAACGGCAGCAGCTGCGGCAGCGCGGCGGGCGGGTCCGACCTCCTACGGCACCCCTTAAGGAG
CCGTCCGGGGGCGGGCGGCACAGCCCTGCTCAACAAGGAGAAATAATTCCGGGACCGCTCGTTTAGCGAGAACGGC
GATCGCAGCCAGCACCTCCTGCACCTGCAGCAGCAGCAGAAGGGGGGCGGGCGGCTCCAGATCAACTCCACGCGC
TACAAGACCGAGCTGTGCCGGCCCTTCGAGGAGAGCGGCACGTGCAAGTACGGCGAAAAGTGCCAGTTTCGCGCAT
GGCTTCCACGAGCTGCGCAGCCTGACTCGCCATCCGAAGTACAAGACCGAGCTGTGCCGCACCTTTCATACCATC
GGCTTCTGCCCTATAGGGCCGCGCTGCCACTTCATCCACAACGCGGACGAGCGGGCGGCCCGCGCCGTCCGGGGGGC
GCCTCCGGGGACCTGCGTGCCCTTGGCACGCGCGATGCGTTGCACCTGGGCTTCCCGCGGGAGCCGCGGCCAAG
TTGCACCACAGCCTCAGCTTCTCGGGCTTCCCGTCGGGCCACCATCAGCCCCCGGGCGGCTCGAGTCGCCGCTG
CTGCTCGACAGCCCCACGTGCGCACGCCGCCGCCCTCCTGCTCTTCGGCCTCGTCTCTCTCTCTCCGCC
TCCTCCTGTTCTCGGCCTCCGCGGCCTCCACGCCCTCGGGCGCCCCGACATGCTGCGCCTCCGCGGCGGGCGCG
GCTGCGGCCGCTCTGCTGTACGGCACCGGGGGCGCCGAGGACCTGCTGGCGCCGGGGGCCCCGTGCGCGGCCTGC
TCGTCCGCCTCGTGCGCAACAACGCCTTCGCCTTCGGTCCGGAGCTCAGCAGCCTCATCAGCCGCTCGCCATC
CAGACCCACAACCTTTGCCGCGTGCCGCCGCCGCCTACTACCGCAGTCAGCAGCAGCAGCAGCAGAGGGCCTG
GCGCCCCCGCGCAGCCGCCGGCGCCGCCAGCGCGACCCTCCCCGCGGGGCGCCGCACCTCCCTCGCCGCC
TTCAGCTTCCAGCTGCCGCGCCGCTGTCCGACTCGCCCGTGTTTCGACGCGCCCCCAGCCCCCGGACTCGCTG
TCGGACCGCGACAGCTACCTAAGCGGCTCCCTGAGCTCCGGCAGCCTCAGCGGCTCTGAGTCTCCAGCCTCGAC
CCTGGCCGCCGCTGCCAATCTTCAGCCGCCTCTCCATCTCCGACGACTGAGGCAAGAGGGCGCCAGTGAGGAGG
AAGGGAAGGCGGTTTCAAGATGTTGGAGGACACCCCTCGCCATCTCGCCCTTGCTGGGGGCACGGGAGTGGGGGG
GGTGACATGGGCCCTAGGCAGACTGCAAGCCCGACCGAGCACTTGGACTCGAACTCTGTGCCGGGAGGGGGCCCC
ACCCCTCCTTTTTTCGGTTTCTCTTGTCTTTTTTTTTTTTATTTTATTACGAAGTTTCATTCTTTTTGAGCAAAA
AAGTCGAACTTTTTCTGTTGAACAAAATATTACAACAGGGCAGTTGTGATACGAATAGAACAAAAAAAAAAAAA
AAACACTTAAACTTTGTTAGGACTCCGATGAGTTTGGGACTTCAGGAAAAATCAACCCAGCACCAGCAGCTACCA
ACCACCATTCATCTCTTCACTTGAACAGCATTAGTTAAGTCCAGATGTGGGAACCCCTCTCTTGAAGAAGTTC
CTAATTGTGTCTCAGACCGGTGTAAACAAACCAGCCAGCCGCCACCTTGCTAAACCTATAAGCTTTTTAAATCC
AATATATTCTGCCAAGAATATGCCTTGATAGTTAGCCCTCAGCCCATAGGTGTTTTTGTTTTTTAACAGAATTA
TATATGTCTGGGGGTGAAAAAACCTTGCAATCCAAAGGTCCATACTGGTTACTTGGTTTCAATTGCCACCACTTA
GTGGATGTTTCAAGTTTAGAACCATTTTGTCTGCTCCCTCTGGAAGCCTTGCGCA

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FIGURE 111

MSTLLSAFYDVDFLCKTEKSLANLNLNNMLDKKAVGTPVAAAPSSGFAPGFLRRHSASNHLAHPAPSPGSCS
PKFPGAANGSSCGSAAAGGPTS YGTLKEPSGGGGTALLNKENKFRDRSFSENGDRSQHLLHLQQQQKGGGGSQIN
STRYKTELCRPFEEESGTCKYGEKCQFAHGFHELRLTRHPKYKTELCRTFHTIGFCPYGPRCHF IHNADERRPAP
SGGASGDLRAFGTRDALHLGFPREPRPKLHHSLSFSGFPSGHHQPPGGLESPLLLDSPTSRTPPPPPSCSSASSCS
SSASSCSSASAASTPSGAPTCASAAAAAALLYGTGGAEDLLAPGAPCAACSSASCANNAFAFGPELSSLITP
LAIQTHNFAAVAAAAYYRSQQQQQQQLAPPAQPPAPPSATLPAGAAAPPSPFFSFQLPRRLSDSPVFDAPPSP
DSLSDRDSYLSGSLSSGSLSGSESPSLDPGRRLPIFSRLSISDD

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FIGURE 112A

CAGATTTACGAGGTTCTGTTCTAGTGCCAAAGGCTCTTGGTAGTAAATAGTGAGCAAAATAGATACCTGTCTCCT
GATGGATCTTGCCAGCCCCNTCCNTATTTTTTNTTAAAGTTATTTATTAAAAACACACACACCTTGCAAAGAAAAA
GGGAAACTGGCAGTCTCTGTAGAGGAAGCCGGTGGCATCGCTCAGAGCCACAAACTGTATTTCTAAACAGCCCTT
TCCCTGGTTCCCTCTCTCCTGCCCCACTTTTTTTTAAAATCCAGACTGTAAAAAACACATCTACTGACACTCACTT
TACTTTAAAAAAGAAGAGAAAAAGTAAAGCGTTACAAGACTTTCCTCCTGGAAACTATAAACTGAAAAAAAAT
CCATAAAAGATTAAATCCTGGCGGGTTGTGGGGTGGCGGGGGCCGGCGGGGAGGGGGCGCGGAGTGAGATTGGC
TCTCTGAGGTGGTCAGGGGCCCTGTGACAGCTTGGGACTTTCAGCACCTGGTTTGGGGTCATTTATCTGCTCAAC
TGTCAGGACCCCCACCCCCAAACCCAGCCACCAACACAACCATCGTAGAAGGGAACACAACACAGAGGGTCTT
TTTTCATTTTTTTAAAAAATCGGTTTGGTTGTGTTTTTGTTCATGGGGGAGCTTTAAAACTCATTATTGCAA
CACTAGTTCCATTTTTTCGCCAGGGTTCCAATAACACGGCATCATAAAGGCAACGCAACCCACAGTTCTCAAGACA
TTTACCACGGTCACTACATCCGGCAGCGGGGTGGCCCCCTAGCTCCTGCTGCCCCCCCCGCCCTTCTCCCCGCCCG
CCCCCGGAGCTCAGCCGATTCTGAGGCTCCAACCTTACCCACTCCCTCCCCGGGCGCGCGCCGCCGCGCCTTCC
CCCATCTTACTCCCTCGAGGAGAGCCACAGGTTGCAATCCAACCAACCTCGCAATCTATTTTTGCAAAATCAC
TCACAAAGATCTCCCTTTCGCGCCCCGCGCCCGCTCCTCCCGCGCCGGGTCCCCTCAGCCACGGCCACAAAGTGCC
CTTCTCTCCTCCTGAGTCTTGACATAAGGAACGCGGGCTGGGGCTCTGTTCTGCTTTTCTCCTCGCCCAAGGTAA
GGACCTCGGGAATCTGAAGCCTGGCGTCCACTACGCTCAGGCCCCGAGTTCCCTTTTTACAGAGCTTGACCATG
GGAAAAATAAAATAAAATTTAGGAAAGGGAGGCAACAGCCATTGGGAGCCAACACAGAGTCACGCAGCGCCAA
AATACAAACACCGCAGCGGCCAGAAATCCCGCCACCTTCTCGTTCTCCAGGCTGTCTGTGAGGTTCCCTGA
GTCCCCCGCACACTGAAAGGCATCGCAGGTGAGTGCGCACCCCTTTCACCCACCCCAAGAAGCCCTGTCCC
GCCATCAGTCTCTCTCCTCGGGATGAGCAGGGAGAGCGCGCGGAGGTTCGCGACTCCCTCGACTACAACCAAGAA
AGAATAATTTTCAAAGTGTTCAACATCCCCGCCCCCAAGCTCCCCAAAACACAGGGGCAGGGAACACCAAAACAC
TCGGCTCTCGTTAGGAAGATCACGGCTCTGAAAGGAAATAGTAGACACGATACTTCATCTCATCTGGATTTATGA
CCAAAAAACAACAAACAAACCCAAAGAGTTGCTTGCATTTTTTTCCTTCCAAATCTCGGTTTCGGCTCGAAGGC
AGGGAATCTAAAAGACCGAGGCCGATGGAAGAGAGCCAGCGGGGCGAGCGAGCGGGCAGCCTCCCTTTTTGCCTC
CCGGAGTCACCCGTTATTCTGTCGTGGCTCAAGCCCGGCCACGCCGCCCAAGGGCTCCTCCCGACCTCCCGGCCT
GCCGCTCCGGCCACTGCGGGATCCAGAAACATGTGACACACACTTCTGTCCGCCTTCTACGATGTGCACTTCTTG
TGCAAGACAGAGAAATCCCTGGCCAACCTCAACCTGAACAACATGCTGGACAAGAAGGCGGTGGGGACGCCTGTG
GCCGCCGCCCCAGCTCGGGCTTCGCGCCGGGATTCCTCCGACGGCACTCGGCCAGCAACCTGCATGCACTCGCC
CACCCCGCGCCAGCCCCGGCAGCTGCTCGCCCAAGTTCCCGGGCGCCGCTAACGGCAGCAGCTGCGGCAGCGCG
GCGGCCGGCGGTCCGACCTCCTACGGCACCTTAAGGAGCCGTGCGGGGGCGGCGGCACAGCCCTGCTCAACAAG
GAGAACAAATTCCGGGACCGCTCGTTTAGCGAGAACGGCGATCGCAGCCAGCACCTCCTGCACCTGCAGCAGCAG
CAGAAGGGGGGCGGCGGCTCCAGATCAACTCCACGCGCTACAAGACCGAGCTGTGCCGGCCCTTCGAGGAGAGC
GGCAGGTGCAAGTACGGCGAAAAGTGCCAGTTGCGCATGGCTTCACGAGCTGCGCAGCCTGACTCGCCATCCG
AAGTACAAGACCGAGCTGTGCCGCACCTTTCATACCATCGGCTTCTGCCCTATGGGCCGCGTGCCACTTCATC
CACAACGCGGACGAGCGGCGGCCCGCGCGCTCGGGGGGCGCCTCCGGGGACCTGCGTGCCCTTGGCACGCGCGAT
GCGTTGCACCTGGGCTTCCCGCGGGAGCCGCGGCCCAAGTTGCACCACAGCCTCAGTTCTCGGGCTTCCCGTCG
GGCCACCATCAGCCCCGGGCGGCCTCGAGTCGCGGCTGCTGCTCGACAGCCCCACGTGCGGCACGCCGCCGCCG
CCCTCCTGCTCTTCGGCCTCGTCTGCTCCTCCTCCGCTCCTCCTGTTCTCTCGGCTCCGCGGCCTCCACGCC
TCGGGCGCCCCGACATGCTGCGCCTCCGCGGCGGCCGCGGCTGCGGCCGCTCTGCTGTACGGCACCGGGGGCGCC
GAGGACCTGCTGGCGCCGGGGGCCCGTGCAGCGGCCTGCTGCTCGGCCCTCGTGCGCCAACAACGCCTTCGCCTTC
GGTCCGGAGCTCAGCAGCCTCATCACGCCGCTCGCCATCCAGACCCACAACCTTGCCGCCGTGGCCGCCGCCGCC
TACTACCGCAGTCAGCAGCAGCAGCAGCAGCAGGCGCTGGCGCCCCCGCGCAGCCGCCGGCGCCGCCAGCGCG
ACCCTCCCCGCCGGGGCCGCCACCTCCCTCGCCGCCCTTCAGCTTCCAGCTGCCGCGCCGCTGTCCGACTCG
CCCGTGTTCGACGCGCCCCCAGCCCCCGGACTCGCTGTGCGACCGCGACAGCTACCTAAGCGGCTCCCTGAGC
TCCGGCAGCCTCAGCGGCTCTGAGTCTCCAGCCTCGACCCTGGCCGCCGCCCTGCCAATCTTCAGCCGCTCTCC
ATCTCCGACGACTGAGGCAAGAGGGCGCCAGTGAGGAGGAAGGGAAGGCGGTTAGAGATGTTGGAGGACACCCC
TCGCCATCTCGCCCTTGCTGGGGGCACGGGAGTGGGGGGGTGACATGGGCCCTAGGCAGACTGCAAGCCCGACC
GAGCACTTGAGCTCGAACTCTGTGCCGGGAGGGGCCCCACCCCTCCTTTTTCGGTTTCCTCTTGCTCTTTTTT

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FIGURE 112B

TTTATTTTTATTACGAAGTTTCATTCTTTTTGAGCAAAAAAGTCGAACTTTTTCTGTTGAACAAAAATATTCACAA
CAGGGCAGTTGTGATACGAATAGAACAAAAAGAAAAAAAACACTTAACTTTGTTAGGACTCCGATGAGTTT
GGGACTTCAGGAAAAATCAACCCAGCACCAGCAGCTACCAACCACCATTCCAICTCTTCACTTGAACAGCATTAG
TTAAGTCCAGATGTGGGAACCCCTTCTCTTGGAAGAAGTTCCTAATTGTGTCTCAGACCGGTGTAAACAAACCAGC
CAGCCGCCACCTTGCTAAACCTATAAGCTTTTTAAAAATCCAATATATTCTGCCAAGAATATGCCTTGATAGTTAG
CCCTCAGCCCATAGGTGTTTTTTGTTTTTAAACAGAATTATATATGTCTGGGGGTGAAAAAACCCTTGCATTCCA
AAGGTCCATACTGGTTACTTGGTTTCATTGCCACCCTTAGTGGATGTTTCAGTTTAGAACCATTTTGTCTGCTCC
CTCTGGAAGCCTTGCGCAGAGCTTACTTTGTAATTGTTGGAGAATAACTGCTGAATTTTTAGCTGTTTTGAGTTG
ATTGCAACCACTGCACCACAACCTCAATATGAAAACCTATTTAACTTATTTATTATCTTGTGAAAAGTATACAATGA
AAATTTTGTTCATACTGTATTTATCAAGTATGATGAAAAGCAATAGATATATATTCTTTTATTATGTTAAATTAT
GATTGCCATTATTAATCGGCAAAATGTGGAGTGTATGTTCTTTTACAGTAATATATGCCTTTTGTAACCTTCACT
TGTTTATTTTTATTGTAAATGAGTACAAAATTCCTAATTTAAGAGATTGTATGTAATATTTATTTCATTAATTTCT
TTCCTTGTTTTACGTAAATTTTGAAAGATTGCATGATTTCTTGACAGAAATCGATCTTGATGCTGTGGAAGTAGTT
TGAGGAACATCCTATGAGTTTTCTTAGAATGTATAAAGGTTGTAGCCCATCCAACCTTCAAAGAAAAAATGACCA
CATACTTTGCAATCAGGCTGAAATGTGGCATGCTTTTCTAATTCCAACTTTATAAACTAGCAAAAAAGTGTGTC
TTATTCCACCAGTTCTACTGTGACATACTCGAGTATAAAGACATGTAGCAATAACGGGGAGTGGGGGGGAGTCT
CACAGTGCCTTTGGAAGGGCCCGAACTTGCCTTAAATCTTCCTCAACCAATAAGTATTTTATTAGTGCTTGAGA
GAATCTGAATGTAGGATGGGTTCAACTGCACAAAAGGAAAAGATTTTTACCACTTTTTTTATATAGATATAAAGT
GAAGCAACCGCCTTAGTGCTGAAATATGTAGTACATGAATATGCCTTGTTTAATTACAGAAAATCCAAAACCTG
TACTATTTTTTTTTTCCATGTAGAAAGGCAGGAATGTCTCCTAAGCTTTCTGGACAGCAGATGAATGAGCGGTA
GCTTTAGTTTGTACGTAGGTACAGTTGGAGCACTATATGTACTCTCTGGACTACTTTGGACAGAAGTAGGTTTTT
GAATGTAACAAGATAAGTCAACTTGAGTTGTAATATATTTTGGGGAATCAGCTCACTACAAATTGTGACTGTAAA
CATTGTACTGTAAATGTTTTGTAGTTTTCCCCCAATAAAATTTTTGGGAAAAAAGGTATTAACATGTAAGAGCT
TTCTTTTTTAAACAGGAATGTCTTAGCTTTCTAGCTTCCCAGCTAACCATGTCTGCCATTCCCCAGGTCTTGCCAT
GGTGGGGGAGGACTTGGAGAGCTGGCAGAGCCAGAGTTCAGAAGAGCCTGCGTCCCTCTCAGCCCGTATATATTTT
ATAAGCAAGTTCTTCTAATGAAAGAAAGTAATTATTTGGACTGTCAAGGGCATTAGTT

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FIGURE 113

MEESQRGERAGSLPFCLPESPVIRRGSSPATPPQGLLPTSRPAAPATAGSRNMSTLLSAFYDVDFLCKTEKSLA
NLNLNNMLDKKAVGTPVAAAPSSGFAPGFLRRHSASNLHALAHPAPSPGSCSPKFPGAANGSSCGSAAAGGPTSY
GTLKEPSGGGGTALLNKENKFRDRSFSENGDRSQHLLHLQQQKGGGSQINSTRYKTELCRPFEESGTCKYGEK
CQFAHGFHELRLTRHPKYKTELCRTFHTIGFCPYGPRCHF IHNADERRPAPSGGASGDLRAFGTRDALHLGFPR
EPRPKLHHSLSFSGFP SGHHQPPGGLESPLLLDSPTSRTPPPPSCSSASSCSSSASSCSSASAASTPSGAPTCCA
SAAAAAALLYGTGGAEDLLAPGAPCAACSSASCANNAFAFGPELSSLITPLAIQTHNFAAVAAAAYRSQQQQ
QQQGLAPPAQPPAPPSATLPAGAAAPPSPF SFQLPRRLSDSPVFDAPPSPPDLSDRDSYLSGSLSSGSLSGSE
SPSLDPGRRLP IFSRLSISDD

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FIGURE 114

GAGTTCCAGCAGTCCGCGAGCTGCCGTGCGCTCCGCGGGGGGGCGGGCCGGGCACCCCGGGGCGCGGAGGAGCG
CTCCTCGCTTCTCTCTCTTCCCCCTGCCGCACTCCGCCGGACCCTCCCGCCGGCCCGCGCCGCTGCACTCGCCCT
CTCCTCTCGCCCCCGGCAAACTTTCGGCCCCCTCCCCGCCCTCGCCCGTTATTCGTCTGTGGCTCAAGCCCGGCC
ACGCCGCCCCAAGGGCTCCTCCCAGCTCCCGGCTGCCGTCCGGCCACTGCGGGATCCAGAAAC**ATGTCGACC**
ACACTTCTGTCCGCCTTCTACGATGTGCACTTCTTGTGCAAGACAGAGAAATCCCTGGCCAACCTCAACCTGAAC
AACATGCTGGACAAGAAGGCGGTGGGGACGCCTGTGGCCGCCGCCCGCCAGCTCGGGCTTCGCGCCGGGATTCTC
CGACGGCACTCGGCCAGCAACCTGCATGCACTCGCCACCCCGCGCCAGCCCCGGCAGCTGCTCGCCCAAGTTC
CCGGGCGCCGCTAACGGCAGCAGCTGCGGCAGCGCGGCGGCCGGTCCGACCTCCTACGGCACCTTAAGGAG
CCGTCCGGGGGGCGGCGGCACAGCCCTGCTCAACAAGGAGAAATAATCCGGGACCGCTCGTTTAGCGAGAACGGC
GATCGCAGCCAGCACCTCCTGCACCTGCAGCAGCAGCAGAAGGGGGGGCGGCGGCTCCCAGATCAACTCCACGCGC
TACAAGACCGAGCTGTGCCGGCCCTTCGAGGAGAGCGGCACGTGCAAGTACGGCGAAAAGTGCCAGTTTCGCGCAT
GGCTTCCACGAGCTGCGCAGCCTGACTCGCCATCCGAAGTACAAGACCGAGCTGTGCCGCACCTTTCATACCATC
GGCTTCTGCCCTATGGGCGCGCTGCCACTTCATCCACAACCGCGACGAGCGGCGGCCCGCGCCGTCCGGGGGGC
GCCTCCGGGGACCTGCGTGCTTTGGCACGCGCATGCGTTGCACCTGGGCTTCCCGCGGGAGCCGCGGCCCAAG
TTGACACACAGCCTCAGCTTCTCGGGCTTCCCGTCGGGCCACCATCAGCCCCGGGCGGCCTCGAGTCGCCGCTG
CTGCTCGACAGCCCCACGTGCGCACGCGCGCCGCCCTCCTGCTCTTCGGCTCGTCTCTCTCTCTCCGCC
TCCTCTGTTCCTCGGCCTCCGCGGCCTCCACGCCCTCGGGCGCCCCGACATGCTGCGCTCCGCGGCGGCCGCG
GCTGCGGCCGCTCTGCTGTACGGCACCGGGGGCGCCGAGGACCTGCTGGCGCCGGGGGGCCCGTGCAGCGGCTGC
TCGTCCGGCTCGTGCGCCAACAACGCCTTCGCCTTCGGTCCGGAGCTCAGCAGCCTCATCAGCCGCTCGCCATC
CAGACCCACAACCTTTGCCGCCGTGGCCGCCGCCGCTACTACCGCAGTCAGCAGCAGCAGCAGCAGCAGGGCCTG
GCGCCCCCGCGCAGCCGCCGGCGGCCCGCCAGCGCGACCTCCCCGCCGGGGCGCCGCACCTCCCTCGCCGCC
TTCAGCTTCCAGCTGCCGCGCCGCTGTCCGACTCGCCCGTGTTCGACGCGCCCCCAGCCCCCGGACTCGCTG
TCGGACCGCGACAGCTACCTAAGCGGCTCCCTGAGCTCCGGCAGCCTCAGCGGCTCTGAGTCTCCAGCCTCGAC
CCTGGCCGCCGCTGCCAATCTTCAGCCGCTCTCCATCTCCGACGAC**TGAGGCAAGAGGGCGCCAGTGAGGAGG**
AAGGGAAGGCGGTTTACAGAGATGTTGGAGGACACCCCTCGCCATCTCGCCCTTGCTGGGGGACGGGAGTGGGGG
GGTGACATGGGCCCTAGGCAGACTGCAAGCCCGACCGAGCACTGGACTCGAACTCTGTGCCGGGAGGGGGCCCC
ACCCCTCCTTTTTTCGGTTTCTCTTGTCTTTTTTTTTTTATTTTATTACGAAGTTTCATTCTTTTTTGAAGAAAA
AAGTCGAACCTTTTTCTGTTGAACAAAATATTACAAACAGGGCAGTTGTGATACGAATAGAACAAAAAAAAAAAA
AAACACTTAACTTTGTTAGGACTCCGATGAGTTTGGGACTTCAGGAAAAATCAACCCAGCACCAGCAGCTACCA
ACCACATTCCATCTCTTCACTTGAACAGCATTAGTTAAGTCCAGATGTGGGAACCTTCTCTTGAAGAAGTTC
CTAATTGTGTCTCAGACCGGTGTAAACAAACCAGCCAGCCGCCACCTTGCTAAACCTATAAGCTTTTTTAAATCC
AATATATTCTGCCAAGAATATGCCTTGATAGTTAGCCCTCAGCCCATAGGTGTTTTTTTGTTTTTTAAACAGAATTA
TATATGTCTGGGGGTGAAAAACCCTTGCAATCCAAAGGTCCATACTGGTTACTTGGTTTCATTGCCACCACTTA
GTGGATGTTTCACTTTAGAACCATTTTGTCTGCTCCCTCTGGAAGCCTTGCGCA

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FIGURE 115

MSTLLSAFYDVDFLCKTEKSLANLNLNNMLDKKAVGTPVAAAPSSGFAPGFLRRHSASNLHALAHPAPSPGSCS
PKFPGAANGSSCGSAAAGGPTSYGTLKEPSGGGGTALLNKENKFRDRSFSENGDRSQHLLHLQQQQKGGGSQIN
STRYKTELCRPFEESGTCKYGEKCQFAHGFHELRLTRHPKYKTELCRTFHTIGFCPYGPRCHF IHNADERRPAP
SGGASGDLRAFGTRDALHLGFPREPRPKLHHSLSFSGFPSGHHQPPGGLESPLLLDSPTSRTPPPSCSSASSCS
SSASSCSSASAASTPSGAPTCCASAAAAAALLYGTGGAEDLLAPGAPCAACSSASCANNAFAFGPELSSLITP
LAIQTHNFAAVAAAAYYRSQQQQQQQLAPPAQPPAPP SATLPAGAAAPPSPFFSFQLPRRLSDSPVFDAPPSPF
DSLSDRDSYLSGSLSSGSLSGSESPSLDPGRRLP IFSRLSISDD

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FIGURE 116

AAAAGAAAAAAAAAAGATTTTTCTTCTCTTAATCGGAATCGTGATGGTGTGGATTATTTCAATGGTGGGGTT
AATATAGCATGTTATCCTGTCTATCTTTTAAAGATTTCTGTATAAGACTGTTGAGCAGTTTTTAAAATAGTGTAG
GATAATATAAAAAGCAGATAGATGGCGCTATGTTTGATTCTACAACGAAATTATCACCAGCTTTTTTTCATTCT
TAACTCTTTAAAGGATTCAAACGCAACTCAAATCTGTGCTGGACTTTAAAAAACAATTACAGGACCAAATTTTTT
CTCAGTGTGTGTGTTTATTCCTTATAGGTGTAAATGAGAAGACGTGTTTTTTCCTTCACCGATGCTCCATCCTC
GTATTTCTTTTTCTTGTAATGTAATCAGATGCCATTTTATATGTGGACGTATTTATACTGGCCAAACATATTT
TTTCTTTTGTCCCTTTTTTCTTTCTTTCTTTTACTTCCTTTATTTCTTATTCCTCCTTTCCNTTTTNNNNN
NNNNNNNNNNNNNNNNNNNNNNNNNNNNNGGTAGTTGTTGTTACCCACGCCATTTTACGTCTCCTTCACTGAAGGG
CTAGAGTTTTAACTTTTAAATTTTTTATATTTAAATGTAGACTTTTGACACTTTTAAAAAACAAAAAAGACAAGA
GAGATGAAAACGTTTGATTATTTTCTCAGTGTATTTTTGTAAAAAATATATAAAGGGGGTGTAAATCGGTGTAA
TCGCTGTTTGGATTTCTGATTTTATAACAGGGCGGCTGGTTAATATCTCACACAGTTTAAAAAATCAGCCCCTA
ATTTCTCCATGTTTACACTTCAATCTGCAGGCTTCTTAAAGTGACAGTATCCCTTAACCTGCCACCAGTGTCCAC
CCTCCGGCCCCCGTCTTGTA AAAAGGGGAGGAGAATTAGCCAAACACTGTAAAGCTTTTAAAGAAAACAAAGTTTT
AAACGAAATACTGCTCTGTCCAGAGGCTTTAAAACTGGTGCAATTACAGCAAAAAGGGATTCTGTAGCTTTAACT
TGTAACCACATCTTTTTTGCACTTTTTTTATAAGCAAAAACGTGCCGTTTAAACCACTGGATCTATCTAAATGC
CGATTTGAGTTCGCGACACTATGTACTGCGTTTTTCATTCTTGATTTGACTATTTAATCCTTTCTACTTGTGCGC
TAAATATAATTGTTTTAGTCTTATGGCATGATGATAGCATATGTGTTTCAAGTTTATAGCTGTTGTGTTTAAAAAT
TGAAAAAGTGGAACATCTTTGTACATTTAAGTCTGTATTATAATAAGCAAAAAGATTGTGTGTATGTATGTT
TAATATAACATGACAGGCACTAGGACGTCTGCCTTTTTAAGGCAGTTCCGTTAAGGGTTTTTGTTTTTAACTTT
TTTTTGCCATCCATCCTGTGCAATATGCCGTGTAGAATATTTGTCTTAAATTTCAAGGCCACAAAAACAATGTTT
GGGGGAAAAAAAAGAAAAATCATGCCAGCTAATCATGTCAAGTTCACTGCCTGTCAGATTGTTGATATATACCT
TCTGTAAATAACTTTTTTGTAGAAGGAAATAAAATCAGCTGGAACCTGAACCCTAAAAAAATCTATGTCGGGTGC
GGAGAAAGAGGTAATGAAATGGCA

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FIGURE 117

MRRRVFFLHRCSILVFLFPCKCNQMPFYMWTYLYWPNIFFLLSLFFFPFFLLPLFLIPPFXXXXXXXXXXXXX

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FIGURE 118

GGGCGCGCCAGAGACGCAGCCGCGCTCCCACCACCCACACCCACCGCGCCCTCGTTCGCCTCTTCTCCGGGAGCC
 AGTCCGCGCCACCGCCGCGCCAGGCCATCGCCACCCTCCGCAGCCATGTCCACCAGGTCCGTGTCCTCGTCCT
 CCTACCGCAGGATGTTGGCGGCCCGGGCACCAGCGAGCCGCGGAGCTCCAGCCGGAGCTACGTGACTACGTCCA
 CCCGCACCTACAGCCTGGGCAGCGCGCTGCGCCCCAGCACCAGCCGAGCCTCTACGCCTCGTCCCCGGGCGGCG
 TGTATGCCACGCGCTCCTCTGCCGTGCGCCTGCGGAGCAGCGTGCCCCGGGTGCGGCTCCTGCAGGACTCGGTGG
 ACTTCTCGCTGGCCGACGCCATCAACACCGAGTTCAAGAACACCCGCACCAACGAGAAGGTGGAGCTGCAGGAGC
 TGAATGACCGCTTCGCCAACTACATCGACAAGGTGCGCTTCCTGGAGCAGCAGAATAAGATCCTGCTGGCCGAGC
 TCGAGCAGCTCAAGGGCCAAGGCAAGTCGCGCCTAGGGGACCTCTACGAGGAGGAGATGCGGGAGCTGCGCCGGC
 AGGTGGACCAGCTAACCAACGACAAAGCCGCGTTCGAGGTGGAGCGCGACAACCTGGCCGAGGACATCATGCGCC
 TCCGGGAGAAATTGCAGGAGGAGATGCTTCAGAGAGAGGAAGCCGAAAAACACCCTGCAATCTTTTCAGACAGGATG
 TTGACAATGCGTCTCTGGCACGTCTTGACCTTGAACGCAAGTGGAATCTTTGCAAGAAGAGATTGCCTTTTTTGA
 AGAAACTCCACGAAGAGGAAATCCAGGAGCTGCAGGCTCAGATTCAGGAACAGCATGTCCAAATCGATGTGGATG
 TTTCCAAGCCTGACCTCAGGCTGCCCTGCGTGACGTACGTACGCAATATGAAAGTGTGGCTGCCAAGAACCTGC
 AGGAGGCAGAAGAAATGGTACAAATCCAAGTTTGCTGACCTCTCTGAGGCTGCCAACCAGGAACAATGACGCCCTGC
 GCCAGGCAAAGCAGGAGTCCACTGAGTACCGGAGACAGGTGCAGTCCCTCACCTGTGAAGTGATGCCCTTAAAG
 GAACCAATGAGTCCCTGGAACGCCAGATGCGTGAAATGGAAGAGAACTTTGCCGTTGAAGCTGCTAACTACCAAG
 AACTATTGGCCGCTGCAGGATGAGATTAGAATATGAAGGAGGAAATGGCTCGTCACCTTCGTGAATACCAAG
 ACCTGCTCAATGTTAAGATGGCCCTTGACATTGAGATTGCCACCTACAGGAAGCTGCTGGAAGGCGAGGAGAGCA
 GGATTTCTCTGCCTCTTCCAACTTTTCTCCCTGAACCTGAGGGAACTAATCTGGATTCACTCCCTCTGGTTG
 ATACCCACTCAAAAAGGACATTCCTGATTAAGACGGTTGAACTAGAGATGGACAGGTTATCAACGAACTTCTC
 AGCATCACGATGACCTTGAATAAAAATTGCACACACTCAGTGGCAGGCGATATATTACCCAGGCAAGAATAAAAA
 AGAAATCCCATATCTTAAAGAAACAGCTTTCAAGTGCCCTTTCTGCAGTTTTTCAGGAGCGCAAGATAGATTTGGA
 ATAGGAATAAGCTCTAGTTCTTAACAACCGACACTCCTACAAGATTTAGAAAAAGTTTACAACATAATCTAGTT
 TACAGAAAAATCTTGTGCTAGAATACTTTTTAAAGGTATTTTGAATACCATTAAACTGCTTTTTTTTTTCCAG
 CAAGTATCCAACCAACTTGGTTCTGCTTCAATAAATCTTTGGAAAACTCCA

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FIGURE 119

MSTRSVSSSSYRRMFGGPGTASRPSSRSYVTTSTRTYSLGSALRPSTSRSLYASSPGGVYATRSSAVRLRSSVP
GVRLQLQDSVDFSLADAINTEFKNTRTNEKVELQELNDRFANYIDKVRFLQQNKILLAELEQLKGQKSRLGDLY
EEEMRELRRQVDQLTNDKARVEVERDNLAEDIMRLREKLQEEMLQREEAENTLQSFQDQVDNASLARLDLERKVE
SLQEEIAFLKKLHEEEIQELQAQIQEQHVQIDVDVSKPDLTAALRDVRRQYESVAAKNLQEAEEWYKSKFADLSE
AANRRNDALRQAKQESTERYRRQVQSLTCEVDALKGTNESLERQMREMEENFAVEAANYQDTIGRLQDEIQNMKEE
MARHLREYQDLLNVKMALDIEIATYRKLLLEGESRISLPLPNFSSLNLRETNLDSLPLVDTHSKRTFLIKTVETR
DGQVINETSQHHDDLE

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FIGURE 120

TGCTGCTGAGGGTGGAGACCCACGAGCCGAGGCCTCCTGCAGTGTTCTGCACAGCAAACCGCACGCT**ATGGCTG**
ACAGCCGGGATCCC GCCAGCGACCAGATGCAGCACTGGAAGGAGCAGCGGGCCGCGCAGAAAGCTGATGTCCTGA
CCACTGGAGCTGGTAACCCAGTAGGAGACAACTTAATGTTATTACAGTAGGGCCCCGTGGGCCCCCTTCTTGTTCT
AGGATGTGGTTTTACTGATGAAATGGCTCATTTTGACCGAGAGAGAATTCCTGAGAGAGTTGTGCATGCTAAAG
GAGCAGGGGCCCTTTGGCTACTTTGAGGTCACACATGACATTACCAAATACTCCAAGGCAAAGGTATTTGAGCATA
TTGGAAAGAAGACTCCCATCGCAGTTCGGTTCTCCACTGTTGCTGGAGAATCGGGTTCAGCTGACACAGTTCGGG
ACCCTCGTGGGTTTGCAGTGAAATTTTACACAGAAGATGGTAACTGGGATCTCGTTGGAAATAACACCCCCATTT
TCTTCATCAGGGATCCCATATTGTTTCCATCTTTTATCCACAGCCAAAAGAGAAATCCTCAGACACATCTGAAGG
ATCCGGACATGGTCTGGGACTTCTGGAGCCTACGTCCTGAGTCTCTGCATCAGGTTTCTTTCTTGTTTCAGTGATC
GGGGGATTCCAGATGGACATCGCCACATGAATGGATATGGATCACATACTTTCAAGCTGGTTAATGCAAATGGGG
AGGCAGTTTATTGCAAATTCATTATAAGACTGACCAGGGCATCAAAAACCTTTCTGTTGAAGATGCGGCGAGAC
TTTCCCAGGAAGATCCTGACTATGGCATCCGGGATCTTTTAAACGCCATTGCCACAGGAAAGTACCCCTCCTGGA
CTTTTTACATCCAGGTCATGACATTTAATCAGGCAGAAACTTTTCCATTTAATCCATTTCGATCTCACCAAGGTTT
GGCCTCACAAGGACTACCCTCTCATCCCAGTTGGTAAACTGGTCTTAAACCGGAATCCAGTTAATTACTTTGCTG
AGGTTGAACAGATAGCCTTCGACCCAAGCAACATGCCACCTGGCATTGAGGCCAGTCTGACAAAATGCTTCAGG
GCCGCTTTTTGCTATCCTGACACTCACCGCCATCGCCTGGGACCCAATTATCTTCATATACCTGTGAAGTGTCT
CCTACCGTGCTCGAGTGGCCAACTACCAGCGTGATGGCCCGATGTGCATGCAGGACAATCAGGGTGGTGCTCCAA
ATTACTACCCCAACAGCTTTGGTGCTCCGGAACAACAGCCTTCTGCCCTGGAGCACAGCATCCAATATTCTGGAG
AAGTGCGGAGATTCAACACTGCCAATGATGATAACGTTACTCAGGTGCGGGCATTCTATGTGAACGTGCTGAATG
AGGAACAGAGGAAACGTCTGTGTGAGAACATTGCCGGCCACCTGAAGGATGCACAAATTTTCATCCAGAAGAAAG
CGGTCAAGAACTTCACTGAGGTCCACCTGACTACGGGAGCCACATCCAGGCTCTTCTGGACAAGTACAATGCTG
AGAAGCCTAAGAATGCGATTACACCTTTGTGCAGTCCGGATCTCACTTGGCGGCAAGGGAGAAGGCAAATCTGT
GAGGCCGGGGCCCTGCACCTGTGCAGCGAAGCTTAGCGTTTCATCCGTGTAACCCGCTCATCACTGGATGAAGATT
CTCCTGTGCTAGATGTGCAAATGCAAGCTAGTGGCTTCAAATAGAGAATCCCACCTTTCTATAGCAGATTGTGTA
ACAATTTTAAATGCTATTTCCCCAGGGGAAAATGAAGGTTAGGATTTAACAGTCATTTAAAAAAAAAATTTGTTTT
GACGGATGATTGGATTATTCATTTAAAAATGATTAGAAGGCAAGTTTCTAGCTAGAAATATGATTTTATTTGACAA
AATTTGTTGAAATTATGTATGTTTACATATCACCTCATGGCCTATTATATTAAAAATATGGCTATAAATATATAAA
AAGAAAAGATAAAGATGATCTACTCAGAAATTTTTATTTTTCTAAGGTTCTCATAGGAAAAGTACATTTAATACA
GCAGTGTCATCAGAAGATAACTTGAGCACCGTCATGGCTTAATGTTTATTCCTGATAATAATTGATCAAATTCAT
TTTTTCTACTGGAGTTACATTAATGTTAATTCAGCACTGATTTCAACACAGATCAATTTGTAATTGCTTACATTT
TTACAATAAATAATCTGTACGTAAGAACA

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FIGURE 121

MADSRDPASDQM QHWKEQRAAQKADVLT TGAGNPVGDKLN VITVGPRGPLL VQDVVFTDEMAHFDRERIPERVVH
AKGAGAFGYFEVTHDITKYSKAKVFEHIGKKTP IAVRFSTVAGESGSADTVRDPRGFAVKFYTEDGNWDLVGNNT
PIFFIRDPI LFPSFIHSQKRNPQTHLKDPDMVWDFWSLRPESLHQVSFLFSDRGIPDGHHRMNGYGSHTFKLVNA
NGEAVYCKFHYKTDQGIKNLSVEDAARLSQEDPDYGIRDLFNAIATGKYPSWTFYIQVMTFNQAETFPFNPFDLT
KVWPHKDYPLIPVGKLV LNRNPFVNYFAEVEQIAFDPSNMPPGIEASPDKMLQGRLFAYPDTHRHRLGPNYLHIPV
NCPYRARVANYQRDGP MCMQDNQGGAPNYYPN SFGAPEQQPSALEHSIQYSGEVRRFNTANDDNVTQVR AFYVNV
LNEEQRKRLCENIAGHLKDAQIFIQKKAVKNFTEVHPDYGSHIQALLDKYNAEKPKNAIHTFVQSGSHLAAREKA
NL

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FIGURE 122

ATCAGCGAGGGATTACGGCGAAATGAGACTGTTTCGTGAGTGATGGCGTCCCGGGTTGCTTGCCGGTGCTGGCCG
CCGCCGGGAGAGCCCGGGGCAGAGAGGTGCTCATCAGCACTGTAGGCCCGGAAGATTGTGTGGTCCCCTTCC
TGACCCGGCCTAAGGTCCCTGTCTTGACAGCTGGATAGCGGCAACTACCTCTTCTCCACTAGTGCAATCTGCCGAT
ATTTTTTTTTGTTATCTGGCTGGGAGCAAGATGACCTCACTAACCAGTGGCTGGAATGGGAAGCGACAGAGCTGC
AGCCAGCTTTGTCTGCTGCCCTGTACTATTTAGTGGTCCAAGGCAAGAAGGGGGAAGATGTTCTTGGTTTCAGTGC
GGAGAGCCCTGACTCACATTGACCACAGCTTGAGTCGTGAGAACTGTCCTTTCCTGGCTGGGGAGACAGAATCTC
TAGCCGACATTGTTTTGTGGGGAGCCCTATACCCATTACTGCAAGATCCCGCTACCTCCCTGAGGAGCTGAGTG
CCCTGCACAGCTGGTTCAGACACTGAGTACCCAGGAACCATGTCAGCGAGCTGCAGAGACTGTACTGAAACAGC
AAGGTGTCCTGGCTCTCCGGCCTTACCTCCAAAAGCAGCCCCAGCCCAGCCCCGCTGAGGGAAGGGCTGTACCA
ATGAGCCTGAGGAGGAGGAGCTGGCTACCCTATCTGAGGAGGAGATTGCTATGGCTGTTACTGCTTGGGAGAAGG
GCCTAGAAAGTTTGCCCCCGCTGCGGCCCCAGCAGAATCCAGTGTTGCCCTGTGGCTGGAGAAAGGAATGTGCTCA
TCACCAGTGCCCCCTCCCTTACGTCAACAATGTCCCCACCTTGGGAACATCATTGGTTGTGTGCTCAGTGCCGATG
TCTTTGCCAGGTACTCTCGCCTCCGCCAGTGGAACACCCTCTATCTGTGTGGGACAGATGAGTATGGTACAGCAA
CAGAGACCAAGGCTCTGGAGGAGGACTAACCCCCAGGAGATCTGCGACAAGTACCACATCATCCATGCTGACA
TCTACCGCTGGTTTAAACATTTTCGTTTGATATTTTTGGTTCGCACCACCACTCCACAGCAGACCAAAATCACCCAGG
ACATTTTCCAGCAGTTGTGAAACGAGGTTTTGTGCTGCAAGATACTGTGGAGCAACTGCGATGTGAGCACTGTG
CTCGCTTCTGGCTGACCGCTTCGTGGAGGGCGTGTGTCCCTTCTGTGGCTATGAGGAGGCTCGGGGTGACCAGT
GTGACAAGTGTGGCAAGCTCATCAATGCTGTGAGCTTAAGAAGCCTCAGTGTAAGTCTGCCGATCATGCCCTG
TGGTGCAGTCGAGCCAGCACCTGTTTCTGGACCTGCCTAAGCTGGAGAAGCGACTGGAGGAGTGGTTGGGGAGGA
CATTGCCTGGCAGTGACTGGACACCCAATGCCAGTTTATCACCCGTTCTTGGCTTCGGGATGGCCTCAAGCCAC
GCTGCATAACCCGAGACCTCAAATGGGGAACCCCTGTACCCTTAGAAGGTTTTGAAGACAAGGTATTCTATGTCT
GGTTTGATGCCACTATTGGCTATCTGTCCATCACAGCCAACTACACAGACCAGTGGGAGAGATGGTGAAGAACC
CAGAGCAAGTGGACCTGTATCAGTTCATGGCCAAAGACAATGTTCCCTTCCATAGCTTAGTCTTTCCTTGCTCAG
CCCTAGGAGCTGAGGATAACTATACCTTGGTCAGCCACCTCATTGCTACAGAGTACCTGAACTATGAGGATGGGA
AATTCTCTAAGAGCCGCGGTGTGGGAGTGTGTTGGGGACATGGCCCAGGACACGGGGATCCCTGCTGACATCTGGC
GCTTCTATCTGCTGTACATTCGGCCTGAGGGCCAGGACAGTGCTTTCTCCTGGACGGACCTGCTGCTGAAGAATA
ATTCTGAGCTGCTTAACAACCTGGGCAACTTCATCAACAGAGCTGGGATGTTTGTGTCTAAGTTCTTTGGGGCT
ATGTGCCTGAGATGGTGTCTACCCCTGATGATCAGCGCCTGCTGGCCCATGTCACCCTGGAGCTCCAGCACTATC
ACCAGCTACTTGAGAAGGTTCCGATCCGGGATGCCTTGCGCAGTATCCTCACCATATCTCGACATGGCAACCAAT
ATATTAGGTGAATGAGCCCTGGAAGCGGATTAAAGGCAGTGAGGCTGACAGGCAACGGGCAGGAACAGTGACTG
GCTTGGCAGTGAATATAGCTGCCTTGCTCTCTGTGTCATGCTTCAGCCTTACATGCCACGGTTAGTGCCACAATCC
AGGCCCAGCTGCAGCTCCCACTCCAGCCTGCAGTATCCTGCTGACAACTTCCTGTGTACCTTACCAGCAGGAC
ACCAGATTGGCACAGTCAGTCCCTTGTTCCAAAAATTGGAAAATGACCAGATTGAAAGTTTAAGGCAGCGCTTTG
GAGGGGGCCAGGCAAAAACGTCCCCGAAGCCAGCAGTTGTAGAGACTGTTACAACAGCCAAGCCACAGCAGATAC
AAGCGCTGATGGATGAAGTGACAAAACAAGGAAACATTGTCCGAGAACTGAAAGCACAAAAGGCAGACAAGAAGC
AGGTTGCTGCGGAGGTGGCGAAACTCTTGATCTAAAGAAACAGTTGGCTGTAGCTGAGGGGAAACCCCTGAAG
CCCCTAAAGGCAAGAAGAAAAAGTAAAGACCTTGGCTCATAGAAAGTCACTTTAATAGATAGGGACAGTAATAA
ATAAATGTACAATCTCTATA

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FIGURE 123

MRLFVSDGVPGLPVLAAAGRARGRAEVLSTVGPEDCVVPFLTRPKVPVLQLDSGNYLFSTSAICRYFFLLSGW
EQDDLINQWLEWEATELQPALSAALYYLVVQGKKGEDVLGSVRRALTHIDHSLSRQNCFFLAGETESLADIVLWG
ALYPLLQDPAYLPEELSALHSWFQTLSTQEPQRAAETVLKQQGV LALRPYLQKQPQSPAEGRAVTNEPEEEEL
ATLSEEEIAMAVTAWEKGLESLPPLRPQNPVLPVAGERNVLITSALPYVNNVPHLGNIIGCVLSADV FARYSRL
RQWNTLYLCGTDEYGTATETKALEEGLTPQEICDKYHIIHADIYRWFNISFDIFGRTTTTQQTKITQDIFQQLLK
RGFVLQDTVEQLRCEHCARFLADRFVEGVCPFCGYEEARGDQCDKCGKLINAVELKKPQCKVCRSCPVVQSSQHL
FLDLPKLEKRLEEWLGRTLPGSDWTPNAQFITRSWLRDGLKPRCITRDLKWGTPVPLEGFEDKV FYVWFDATIGY
LSITANYTDQWERWWKNPEQVDLYQFMAKDNVPFHSLVFPC SALGAEDNYTLVSHLIATEYLYNEDGKF SKSRGV
GVFGDMAQDTGIPADIWRFYLLYIRPEGQDSAFSWTDL LKNNSELLNNLGNFINRAGMFVSKFFGGYVPEMVL T
PDDQRLLAHV TLELQHYHQLLEKVRIRDALRSILTISR HGNQYIQVNEPWKRIKGSEADRQRAGTVTGLAVNIAA
LLSVMLQPYMPTVSATIQAQLQLPPPAC SILLTNFLCTLPAGHQIGTVSPLFQKLENDQIESLRQRFGGGQAKTS
PKPAVVETVTTAKPQQIQALMDEVTKQGNIVRELKAQKADKNEVA AEVAKLLDLKKQLAVAEGKPPEAPKGKKKK

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FIGURE 124

ATTCGAACCCCGTCGCGCCCCCTTTGTGCGTCACGGGTGGCGGGCGCGGGAAGGGGATTGGATTGTTGCGCCTCT
GCTCTGAAGAAAGTGCTGTCTGGCTCCAACTCCAGTTCTTTCCCTGAGCAGCGCCTGGAACTAACCTTCCCA
CTCTGTACCTTCTCGATCCCGCCGGCGCTTTAGAGCCGAGTCCAGTCTTGGATCCTTCAGAGCCTCAGCCACT
AGCTGCGATGATGTGATCAAGCGAGATGGCCGCCAAGAACGAGTCATGTTTGACAAAATTACATCTCGAATCCA
GAAGCTTTGTTATGGACTCAATATGGATTTTGTGTGATCCTGCTCAGATCACCATGAAAGTAATCCAAGGCTTGTA
CAGTGGGGTCACCACAGTGGAACTAGATACTTTGGCTGCTGAAACAGCTGCAACCTTGACTACTAAGCACCTGA
CTATGCTATCCTGGCAGCCAGGATCGCTGTCTCTAACTTGCACAAAGAAACAAAGAAAGTGTTCAGTGATGTGAT
GGAAGACCTCTATAACTACATAAATCCACATAATGGCAAACACTCTCCCATGGTGGCCAAGTCAACATTGGATAT
TGTTCTGGCCAATAAAGATCGCCTGAATTCTGCTATTATCTATGACCGAGATTTCTCTTACAATTACTTCGGCTT
TAAGACGCTAGAGCGGTCTTATTTGTTGAAGATCAATGGAAAAGTGGCTGAAAAGACCACAACATATGTTGATGAG
AGTATCTGTTGGGATCCACAAAAGACATTGATGCAGCAATTGAAACATATAATCTTCTTCTGAGAGGTGGTT
TACTCATGCTTCGCCCCACTCTCTTCAATGCTGGTACCAACCGCCCACTTTCTAGCTGTTTTCTTCTGAGTAT
GAAAGATGACAGCATTGAAGGCATTTATGACACTCTAAAGCAATGTGCATTGATTTCTAAGTCTGCTGGAGGAAT
TGGTGTGCTGTGAGTTGTATTTCGGGCTACTGGCAGCTACATTGCTGGGACTAATGGCAATTCCAATGGCCTTGT
ACCGATGCTGAGAGTATATAACAACACAGCTAGATATGTGGATCAAGGTGGGAACAAGCGTCTGGGGCATTGTC
TATTTACCTGGAGCCTTGGCATTAGACATCTTTGAATTCCTTGATTTAAAGAAGAACACAGGAAAGGAAGAGCA
GCGTGCCAGAGATCTTTTCTTGTCTTTTGGATTCCGGATCTCTTCATGAAACGAGTGGAGACTAATCAGGACTG
GTCTTTGATGTGTCCAAATGAGTGTCTGGTCTGGATGAGGTTTGGGGAGAGGAATTTGAGAACTATATGCAAG
TTATGAGAAACAAGGTCGTGTCCGCAAAGTTGTAAGCTCAGCAGCTTTGGTATGCCATCATTGAGTCTCAGAC
GGAAACAGGCACCCCGTATATGCTCTACAAAGATTCTGTAAATCGAAAGAGCAACCAGCAGAACCTGGGAACCAT
CAAATGCAGCAACCTGTGCACAGAAATAGTGGAGTACACCAGCAAAGATGAGGTTGCTGTTTGTAAATTTGGCTTC
CCTGGCCCTGAATATGTATGTACATCAGAACACACATACGACTTTAAGAAGTTGGCTGAAGTCACTAAAGTCGT
TGTCCGAACTTGAATAAAATATTGATATAAACTACTATCCTGTACCAGAGGCATGCCTATCAAATAAACGCCA
TCGCCCCATTGGAATTGGGGTACAAGGTCTGGCAGATGCTTTTATCCTGATGAGATACCTTTTGAGAGTGCAGA
AGCCAGTTACTGAATAAGCAGATCTTTGAACTATTTATTATGGTGTCTCTGGAAGCCAGCTGTGACCTTGCCAA
GGAGCAGGGCCCATACGAAACCTATGAGGGCTCTCCAGTTAGCAAAGGAATTCTTCAGTATGATATGTGGAATGT
TACTCTACAGACCTATGGGACTGGAAGGTTCTCAAGGAGAAGATTGCAAAGTATGGTATAAGAAACAGTTTACT
TATTGCCCCGATGCCTACAGCTTCCACTGCTCAGATCCTGGGGAATAATGAGTCCATTGAACCTTACACCAGCAA
CATCTATACTCGCAGAGTCTTGTGAGGAGAATTTAGATTGTAAATCCTCATTATTGAAAGATCTTACCGAGCG
GGCCCTATGGCATGAAGAGATGAAAAACCAGATTATTGCATGCAATGGCTCTATTTCAGAGCATACCAGAAATTC
TGATGACCTGAAGCAACTTTATAAACTGTGTGGGAAATCTCTCAGAAAACCTGTTCTCAAGATGGCAGCTGAGAG
AGGTGCTTTTATTGATCAAAGCCAATCTTTGAACATCCACATTGCTGAGCCTAACTATGGCAAACCTACTAGTAT
GCACTTCTACGGCTGGAAGCAGGGTTTGAAGACTGGGATGTATTATTTAAGGACAAGACCAGCAGCTAATCCAAT
CCAGTTCACTCTAAATAAGGAGAAGCTAAAAGATAAAGAAAAGGTATCAAAAGAGGAAGAAGAGAAGGAGAGGAA
CACAGCAGCCATGGTGTGCTCTTTGGAGAATAGAGATGAATGTCTGATGTGTGGATCCTGAGGAAAGACTTGGA
GAGACCAGCATGTCTTCAGTAGCCAACTACTTCTTGAGCATAGATAGGTATAGTGGGTTTGCTTGAGGTGGTAA
GGCTTTGCTGGACCCTGTTGCAGGCCAAAAGGAGTAATTGATTTAAAGTACTGTTAATGATGTTAATGATTTTTT
TTAACTCATATATTGGGATTTTACCCAAAATAATGCTTTTGAAGAAAAGAAAAAAGGATATATTGAGAA
TCAAAGTAGAAGTTTATAGGAATGCAAAATAAGTCATCTTGATACAGGGAGTGGTTAAGTAAGGTTTATCACCC
ATTTAGCATGCTTTTCTGAAGACTTCAGTTTTGTTAAGGAGATTTAGTTTTACTGCTTTGACTGGTGGGTCTCTA
GAAGCAAACTGAGTGATAACTCATGAGAAGTACTGATAGGACCTTTATCTGGATATGGTCTATAGGTTATTCT
GAAATAAAGATAAACATTTCTAAGTGAAAAAAGAAAAA

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FIGURE 125

MHVIKRDGRQERVMFDKITSRIQKLCYGLNMDFVDPAQITMKVIQGLYSGVTTVELDTLAAETAATLTTHKHPDYA
ILAARIAVSNLHKETKKVFSVDMEDLYNYINPHNGKHSPMVAKSTLDIVLANKDRLNSAIYDRDFS YNYFGFKT
LERSYLLKINGKVAERPQHMLMRVSVGIHKEDIDAAIETYNLLSERWFTHASPTLFNAGTNRPQLSSCFLLSMKD
DSIEGIYDTLKQCALISKSAGGIGVAVSCIRATGSYIAGTNGNSNGLVPMLRVYNNTARYVDQGGNKRPGAFIY
LEPWHL DIFEFLDLKKNTGKEEQRARDLFFALWIPDLFMKR VETNQDWSLMCPNECPGLDEVWGEEFEKLYASYE
KQGRVRKVVKAAQLWYAIIESQTETGTPYMLYKDSCNRKSNQONLGTIKCSNLCTEIVEYTSKDEVAVCNLASLA
LNMYVTSEHTYDFKKLAEVTKVVVRNLNKIIDINYPVPEACLSNKRHRPIGIGVQGLADAFILMRYPFESAEAQ
LLNKQIFETIYYGALEASCDLAKEQGPYETIEGSPVSKGILQYDMWNVTPDLWDWKVLKEKIAKYGIRNSLLIA
PMPTASTAQILGNNESEPYTSNIYTRRVLSGEFQIVNPHLLKDLTERGLWHEEMKNQIIACNGSIQSIPEIPDD
LKQLYKTVWEISQKTVLKMAAERGAFIDQSQSLNIHIAEPNYGKLTSMHFYGWKQGLKTGMYLRLTRPAANPIQF
TLNKEKLDKEKVSKEEEEKERNTAAMVCSLENRDECLMCGS

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FIGURE 126

TCTGGGCGCGCGACGTCAAGTTTGTGTTCTCCCCGCCCCGTGTCCCGCCCGACCCGCGCCCCGCG**ATGC**
TGGCGCTGCGCTGCGGCTCCCGCTGGCTCGGCCTGCTCTCCGTCCCGCGCTCCGTGCCGTGCGCCTCCCGCGG
CCCGCGCTGCGCAAGGGCTCCGGCGACCCGTCTCTTCTCCTCCTCCGGGAACCCGCTCGTGTACCTGGACG
TGGACGCCAACGGGAAGCCGCTCGGCCGCGTGGTGCTGGAGCTGAAGGCAGATGTCGTCCCAAAGACAGCTGAGA
ACTTCAGAGCCCTGTGCACTGGTGAGAAGGGCTTCGGCTACAAAGGCTCCACCTTCCACAGGGTGATCCCTTCCT
TCATGTGCCAGGCGGGCGACTTCACCAACCACAATGGCACAGGCGGGAAGTCCATCTACGGAAGCCGCTTTCCTG
ACGAGAACTTTACACTGAAGCACGTGGGGCCAGGTGTCTGTCCATGGCTAATGCTGGTTCCTAACACCAACGGCT
CCCAGTTCTTCATCTGCACCATAAAGACAGACTGGTTGGATGGCAAGCATGTTGTGTTCCGGTCACGTCAAAGAGG
GCATGGACGTCGTGAAGAAAATAGAATCTTTCGGCTCTAAGAGTGGGAGGACATCCAAGAAGATTGTCATCACAG
ACTGTGGCCAGTTGAGCT**TAA**TCTGTGGCCAGGGTGCTGGCATGGTGGCAGCTGCAAATGTCCATGCACCCAGGTG
GCCGCGTTGGGCTGTGAGCCAAGGTGCCTGAAACGATACGTGTGCCCACTCCACTGTCACAGTGTGCCTGAGGAA
GGCTGCTAGGGATGTTAGACCTCGGCCAGGACCCACCACATTGCTTCCTAATACCCACCCTTCCTCACGACCTCA
TTTCTGGGCATCTTTGTGGACATGATGTACCCACCCCTTGTCAAGCATTGCCTGTGATTGCCAGCCAGATTC
ATCTGTGCCTTGGACATGGTGATGGTGATGGGTTGCCATCCAAGTGAAAGTCTTTTCCTTGACCAAGGGGGACAG
TCAGTTTGTCAAAGGACTCTAATACCTGTTTAATATTGTCTTCCTAATTGGGATAATTTAATTAACAAGATTGA
CTAGAAGTGAACTGCAACACTAACTTCCCCGTGCTGTGGTGACCTGAGTTGGTGACACAGGCCACAGACCC
AGAGCTTGGCTTTTGAACACAACCTCAGGGCTTTTGTGAAGTTCCCCCGCTGAGATCTTTCCTCCTGGTTACTG
TGAAGCCTGTTGGTTTGCTGCTGTCGTTTTTGGAGAGGGCCCATGGGGGTAGGAGCAGTTGAACCTGGGAACAAA
CCTCACTTGAGCTGTGCCTAGACAATGTGAATTCCTGTGTTGCTAACAGAAGTGGCCTGTAAGCTCCTGTGCTCC
GGAGGGAAGCATTTCCTGGTAGGCTTTGATTTTTCTGTGTGTTAAAGAAATTCAATCTACTCATGATGTGTTATG
CATAAACATTTCTGGAACATGGATTTGTGTTACCTTAAATGTGAAAATAAATCCTATTTTCTATGGAAAAAA
AAAAAAAAAAAAAAAA

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FIGURE 127

MLALRCGSRWLGLLSVPRSVPLRLPAARACSKGSGDPSSSSSSGNPLVYLDVDANGKPLGRVVLELKADVVPKTA
ENFRALCTGEKGFYKGSTFHRVIPSFMCQAGFTNHNGTGGKSIYGSRFPDENFTLKHVGPVLSMANAGPNTN
GSQFFICTIKTDWLDGKHVVFGHVKEGMDVVKKIESFGSKSGRTSKKIVITDCGQLS

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FIGURE 128

TC TGGGCGCGCGGACGTCAGTTTGAGTTCTGTGTTCTCCCCGCCCCGTGTCCCGCCCCGACCCGCGCCCCGCG**ATGC**
TGGCGCTGCGCTGCGGCTCCCGCTGGCTCGGCCTGCTCTCCGTCCCGCGCTCCGTGCCGCTGCGCCTCCCGCGG
CCCGCGCCTGCAGCAAGGGCTCCGGCGACCCGTCCTCTTCCCTCCTCCTCCGGGAACCCGCTCGTGTACCTGGACG
TGGACGCCAACGGGAAGCCGCTCGGCCGCGTGGTGCTGGAGCTGAAGGCAGATGTCGTCCCAAGACAGCTGAGA
ACTTCAGAGCCCTGTGCACTGGTGAGAAGGGCTTCGGCTACAAAGGCTCCACCTTCCACAGGGTGATCCCTTCCT
TCATGTGCCAGGCGGGCGACTTCACCAACCACAATGGCACAGGCGGGAAGTCCATCTACGGAAGCCGCTTTCCTG
ACGAGAACTTTACACTGAAGCACGTGGGGCCAGGTGTCTGTCCATGGCTAATGCTGGTCCCTAACACCAACGGCT
CCCAGTTCTTCATCTGCACCATAAAGACAGACTGGTTGGATGGCAAGCATGTTGTGTTCCGGTCACGTCAAAGAGG
GCATGGACGTCGTGAAGAAAATAGAATCTTTCGGCTCTAAGAGTGGGAGGACATCCAAGAAGATTGTCATCACAG
ACTGTGGCCAGTTGAGCT**TAA**CTGTGGCCAGGGTGCTGGCATGGTGGCAGCTGCAAATGTCCATGCACCCAGGTG
GCCGCGTTGGGCTGTGAGCCAAGGTGCCTGAAACGATACGTGTGCCCCACTCCACTGTCACAGTGTGCCTGAGGAA
GGCTGTAGGGATGTTAGACCTCGGCCAGGACCCACCACATTGCTTCCTAATACCCACCCTTCCTCACGACCTCA
TTTCTGGGCATCTTTGTGGACATGATGTCACCCACCCCTTGTCAAGCATTGCCGTGTGATTGCCAGCCAGATTC
ATCTGTGCCTTGGACATGGTGATGGTGATGGGTTGCCATCCAAGTGAAAGTCTTTTCCTTGACCAAGGGGGACAG
TCAGTTTTCGAAAAGGACTCTAATACCTGTTTAATATTGTCTTCCTAATTGGGATAATTTAATTAACAAGATTGA
CTAGAAGTGAACTGCAACACTAACTTCCCCGTGCTGTGGTGACCTGAGTTGGTGACACAGGCCACAGACCCC
AGAGCTTGGCTTTTGAAACACAACCTCAGGGCTTTTGTGAAGGTCCCCCGCTGAGATCTTTCCTCCTGGTTACTG
TGAAGCCTGTTGGTTTGCTGCTGTCGTTTTTGGAGAGGGCCCATGGGGGTAGGAGCAGTTGAACCTGGGAACAAA
CCTCACTTGAGCTGTGCCTAGACAATGTGAATTCCTGTGTTGCTAACAGAAGTGGCCTGTAAGCTCCTGTGCTCC
GGAGGGAAGCATTTCCTGGTAGGCTTTGATTTTTCTGTGTGTTAAAGAAATTCAATCTACTCATGATGTGTTATG
CATAAAACATTTCTGGAACATGGATTTGTGTTACCTTAAATGTGAAAATAAATCCTATTTTCTATGGAAAAAA
AAAAAAAAAAAAAAAA

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FIGURE 129

MLALRCGSRWLGLLSVPRSVPLRLPAARACSKGSGDPSSSSSSGNPLVYLDVDANGKPLGRVVLELKADVVPKTA
ENFRALCTGEKGFYKGSTFHRVIPSFMCQAGFTNHNGTGGKSIYGSRFPDENFTLKHVGPGVLSMANAGPNTN
GSQFFICTIKTDWLDGKHVVFGHVKEGMDVVKKIESFGSKSGRTSKKIVITDCGQLS

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FIGURE 130

CGGCGGAGCTGGTCCCGTTGTGCTGCGGCGCCGCGCGGCCTGCAGTCCCGGGCCCGCGCCCCGCGCCGCCCCGCC
GCCCCGCC**ATG**GAGCCCCGCCCCGACGGCCCCGCGGCCTCCGGCCCCGCGGCCATCCGCGAGGGCTGGTTCCGCGA
GACCTGCAGCCTGTGGCCCGGCCAGGCCCTGTGCTGCAGGTGGAGCAGCTGCTCCACCACCGGCGCTCGCGCTA
CCAGGACATCCTCGTCTTCCGCAGTAAGACCTATGGCAACGTGCTGGTGTGGACGGTGTATCCAGTGCACGGA
GAGAGACGAGTTCTCCTACCAGGAGATGATCGCCAACCTGCCTCTCTGCAGCCACCCCAACCCGCGAAAGGTGCT
GATCATCGGGGGCGGAGATGGAGGTGTCCTGCGGGAGGTGGTGAAGCACCCCTCCGTGGAGTCCGTGGTCCAGTG
TGAGATCGACGAGGATGTCATCCAAGTCTCCAAGAAGTTCTGCCAGGCATGGCCATTGGCTACTCTAGCTCGAA
GGTGACCCTACATGTGGGTGACGGTTTTGAGTTTCATGAAACAGAATCAGGATGCCTTCGACGTGATCATCACTGA
CTCCTCAGACCCCATGGGCCCCCGCGAAAGTCTCTTCAAGGAGTCCTATTACCAGCTCATGAAGACAGCCCTCAA
GGAAGATGGTGTCTCTGCTGCCAGGGCGAGTGCGAGTGGCTGCACCTGGACCTCATCAAGGAGATGCGGCAGTT
CTGCCAGTCCCTGTTCCCCGTGGTGGCCTATGCCTACTGCACCATCCCCACCTACCCAGCGGCCAGATCGGCTT
CATGCTGTGCAGCAAGAACCCGAGCACGAACCTCCAGGAGCCGGTGCAGCCGCTGACACAGCAGCAGGTGGCGCA
GATGCAGCTGAAGTACTACAACCTCCGACGTGCACCGCGCCGCGCTTTGTGCTGCCCCGAGTTTGCCCGCAAGGCCCT
GAATGATGTGAGCT**TGAG**CCCCAGGCGCCACCCTGATGCCACCCAGGACCTCGGACCTTGGAGCCTGCGGGGTGCC
TCGGCCCCCTCCAGCCCCGGGCGGACCTCCTGCTGGCTCTCGCCCCACCAACCAAGTGTACAAGCCCCAGAATGC
TGCCCGGCCTGCCCTGCTGGGCGGACTGTCTGTGTGTCTGTCTCTCTGGCGTTCCACCTCCAAGCCTATACCAGC
TGTGTACAGCGCCATCTCTCTGCCTTCTGTTGCCCCG

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FIGURE 131

MEPGPDGPAASGPAAIREGWFRETCSLWPGQALSQVEQLLHHRRSRYQDILVFRSKTYGNVLVLDGVIQCTERD
EFSYQEMIANLPLCSHPNPRKVLIIIGGDGGVLREVVKHPSVESVVQCEIDEDVIQVSKKFLPGMAIGYSSSKVT
LHVGDGFEFMKQNQDAFDVITDSSDPMGPAESLFKESYYQLMKTALKEDGVLCCQGECEWLHLDLIKEMRQFCQ
SLFPVVAYAYCTIPTYPGQIGFMLCSKNPSTNFQEPVQPLTQQQVAQMLKYNSDVHRAAFVLPEFARKALND
VS

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FIGURE 132

GCGCTCCGGGCCTGGAATCCCTACGCGTCCCTTTGGGTTTAGCACGATGAGCTCAATCGGCACTGGGTATGACCT
GTCAGCCTCTACATTCTCTCCTGACGGAAGAGTTTTTCAAGTTGAATATGCTATGAAGGCTGTGGAAAATAGTAG
TACAGCTATTGGAATCAGATGCAAAGATGGTGTGTCTTTGGGGTAGAAAAATTAGTCCTTTCTAAACTTTATGA
AGAAGGTTCCAACAAAAGACTTTTTAATGTTGATCGGCATGTTGGAATGGCAGTAGCAGGTTTGTGGCAGATGC
TCGTTCTTTAGCAGACATAGCAAGAGAAGAAGCTTCCAACCTCAGATCTAACTTTGGCTACAACATTCCACTAAA
ACATCTTGCAGACAGAGTGGCCATGTATGTGCATGCATATACACTCTACAGTGCTGTTAGACCTTTTGGCTGCAG
TTTCATGTTAGGGTCTTACAGTGTGAATGACGGTGCGCAACTCTACATGATTGACCCATCAGGTGTTTCATACGG
TTATTGGGGCTGTGCCATCGGCAAAGCCAGGCAAGCTGCAAAGACGGAAATAGAGAAGCTTCAGATGAAAGAAAT
GACCTGCCGTGATATCGTTAAAGAAGTTGCAAAAATAATTTACATAGTACATGACGAAGTTAAGGATAAAGCTTT
TGAAGTAGAACTCAGCTGGGTTGGTGAATTAATAATGGAAGACATGAAATTGTTCCAAAAGATATAAGAGAAGA
AGCAGAGAAATATGCTAAGGAATCTCTGAAGGAAGAAGATGAATCAGATGATGATAATATGTAACATTTACTCCA
GCATCTATTGTATTTTAAATTTCTACTCCAGTCCAATGTAACATTTTAGCCCTGGATTATACATACTGTCCAATT
TTCATTAAATTTTTGTCTTATAACTATAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 133

MSSIGTGYDLSASTFSPDGRVFQVEYAMKAVENTSSTAIGIRCKDGVVFGVEKLVLSKLYEEGSNKRLFNVDHRVG
MAVAGLLADARSLADIAREEASNFRSNFGYNIPLKHLADRVAMYVHAYTLYSAVRPFGCSFMLGSYSVNDGAQLY
MIDPSGVSYGYWGCAIGKARQAAKTEIEKLQMKEMTCRDIVKEVAKIIYIVHDEVKDKAFELELSWVGELTNGRH
EIVPKDIREEAKEYAKESLKEEDESDDDNM

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FIGURE 134

CGGCACGAGGCGACTTTGGTGGAGGTAGTTCTTTGGCAGCGGGCATGGCGGGTACCGTGGTGCTGGACGATGTGG
AGCTGCGGGAGGCTCAGAGAGATTACCTGGACTTCCTGGACGACGAGGAAGACCAGGGAATTTATCAGAGCAAAG
TTCGGGAGCTGATCAGTGACAACCAATACCGGCTGATTGTCAATGTGAATGACCTGCGCAGGAAAAACGAGAAGA
GGGCTAACCGGCTTCTGAACAATGCCTTTGAGGAGCTGGTTGCCTTCCAGCGGGCCTTAAAGGATTTTGTGGCCT
CCATTGATGCTACCTATGCCAAGCAGTATGAGGAGTTCTACGTAGGACTGGAAGGCAGCTTTGGCTCCAAGCACG
TCTCCCCGCGGACTCTTACCTCCTGCTTCCTCAGCTGTGTGGTCTGTGTGGAGGGCATTGTCACTAAATGTTCTC
TAGTTTCGTCCCAAAGTCGTCCGCAGTGTCCACTACTGTCTGTCTACTAAGAAGACCATAGAGCGACGTTATTCTG
ATCTCACCACCTTGGTGGCCTTTCCCTCCAGCTCTGTCTATCTACCAAGGATGAGGAGAACAAATCCCCTTGAGA
CAGAATATGGCCTTTCTGTCTACAAGGATCACCAGACCATCACCATCCAGGAGATGCCGGAGAAGGCCCCAGCCG
GCCAGCTCCCCCGCTCTGTGGACGTCATTCTGGATGATGACTTGGTGGATAAAGCGAAGCCTGGTGACCGGGTTC
AGGTGGTGGGAACCTACCGTTGCCTTCCTGGAAAGAAGGGAGGCTACACCTCTGGGACCTTCAGGACTGTCTCTGA
TTGCCTGTAATGTTAAGCAGATGAGCAAGGATGCTCAGCCCTCTTTCTCTGCTGAGGATATAGCCAAGATCAAGA
AGTTCAGTAAACCCGATCCAAGGATATCTTTGACCAGCTGGCCAAGTCATTGGCCCCAAGTATCCATGGGCATG
ACTATGTCAAGAAAGCAATCCTCTGCTTGTCTTTGGGAGGGGTGGAACGAGACCTAGAAAATGGCAGCCACATCC
GTGGGGACATCAATATTCTTCTAATAGGAGACCCATCCGTTGCCAAGTCTCAGCTTCTGCGGTATGTGCTTTGCA
CTGCACCCCGAGCTATCCCCACCACTGGCCGGGGCTCCTCTGGAGTGGGTCTGACGGCTGCTGTCAACACAGACC
AGGAAACAGGAGAGCGCCGTCTGGAAGCAGGGGCCATGGTCTGGCTGACCGAGGCGTGGTTTGATTGATGAAT
TTGACAAAATGTCTGACATGGATCGCACAGCCATCCATGAAGTGTGAGCAGGGTCGAGTGACCATTGCCAAGG
CTGGCATCCATGCTCGGCTGAATGCCCGCTGCAGTGTTTTGGCAGCTGCCAACCCTGTCTACGGCAGGTATGACC
AGTATAAGACTCCAATGGAGAACATTGGGCTACAGGACTCACTGCTGTACGATTTGACTTGCTCTTCATCATGC
TGGATCAGATGGATCCTGAGCAGGATCGGGAGATCTCAGACCATGTCTTTCGGATGCACCGTTACAGAGCACCTG
GGGAGCAGGATGGCGATGCTATGCCCTTGGGTAGTGTGTGGATATCCTGGCCACAGATGATCCCAACTTTAGCC
AGGAAGATCAGCAGGACACCCAGATTTATGAGAAGCATGACAACCTTCTACATGGGACCAAGAAGAAAAAGGAGA
AGATGGTGAGTGCAGCATTTCATGAAGAAGTACATCCATGTGGCCAAAAATCATCAAGCCTGTCTGACACAGGAGT
CGGCCACCTACATTGCAGAAGAGTATTACGCCTGCGCAGCCAGGATAGCATGAGCTCAGACACCGCCAGGACAT
CTCCAGTTACAGCCCGAACACTGGAACTCTGATTGACTGGCCACAGCCCATGCGAAGGCCCGCATGAGCAAGA
CTGTGGACCTGCAGGATGCAGAGGAAGCTGTGGAGTTGGTCCAGTATGCTTACTTTAAGAAGTTCTGGAGAAGG
AGAAGAAACGTAAGAAGCGAAGTGAGGATGAATCAGAGACAGAAGATGAAGAGGAGAAAAGCCAAGAGGACCAGG
AGCAGAAGAGGAAGAGAAGGAAGACTCGCCAGCCAGATGCCAAAGATGGGGATTCATACGACCCCTATGACTTCA
GTGACACAGAGGAGGAAATGCCTCAAGTACACACTCCAAAGACGGCAGACTCACAGGAGACCAAGGAATCCCAGA
AAGTGGAGTTGAGTGAATCCAGGTTGAAGGCATTCAAGGTGGCCCTCTTGGATGTGTTCCGGGAAGCTCATGCGC
AGTCAATCGGCATGAATCGCCTCACAGAATCCATCAACCGGGACAGCGAAGAGCCCTTCTCTTCAGTTGAGATCC
AGGCTGCTCTGAGCAAGATGCAGGATGACAATCAGGTCATGGTGTCTGAGGGCATCATCTTCTCATCTTGAGGAG
GCCTCGTCTCTGAACTTGGGTTGTGCCGAGAGAGTTTGTCTGTGTTCCACCCCTCTCCCTGACCCAAGTCTTT
GCCTCTACTCCCTTAACAGTGTGAATTCAACTGAAGGCGAGGAATGTTGGTGATGAAGCTGAGTTCAGGACTCG
GTGGACCCTTTGGGAATGGGTCATGAAAGCTGCCATGGGGTGAGGAAAGAGGAGACAGTGGGAGAGGACAATGAC
TATTGCATCTTCATTGCAAAAGCACTGGCTCATCCGCCCTACTTCCCATCCCACACAAACCAATTGTAAATAAC
ATATGACTTCTGAGTACTTTTGGGGGCACAACGTGTTTTCTGTTTGCTGTTTTTTTGTGTTTTTTTTTCTCCAG
AGCACTTTGGTCTAGACTAGGCTTTGGGTGGTTCCAATTGGTGGAGAGAAGCTCTGAGGCACGTCATGCAGGTCA
AGAAAGCTTTCTTTGCAGTAGCACCAGTTAAGGTGAATATGTATTGTATCACAAAAACAAACCAATATCCAGATG
AATATCCGAGATGTTGAATAAACTTAGCCATTTTCGTACAAAAAAGGGGGGGCCCGGTAAAC

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FIGURE 135

MAGTVVLDDELREAQRDYLDLDEEDQGIYQSKVRELISDNQYRLIVNVNDLRRKNEKRANRLNNAFEELVA
FQALKDFVASIDATYAKQYEEFYVGLGSGSKHVSPTLTSCFLSCVVCVEGIVTKCSLVRPKVVRVSVHYCPA
TKKTIERRYSDLTTLVAFPSSSVYPTKDEENNPLETEYGLSVYKDHQTITIQEMPEKAPAGQLPRSVDVILDDDL
VDKAKPGDRVQVVGTYRCLPGKKGGYTSCTFRTVLIACNVKQMSKDAQPSFSAEDIAKIKKFSKTRSKDIFDQLA
KSLAPSIHGHYVKKAILCLLLGGVERDLENGSHIRGDINILLIGDPSVAKSQLLRYVLCTAPRAIPTTGRGSSG
VGLTAAVTTDQETGERRLEAGAMVLADRGVVCIDEFDKMSDMDRTAIHEVMEQGRVTIAKAGIHARLNARCSVLA
AANPVYGRYDQYKTPMENIGLQDSLLSRFDLLFIMLDQMDPEQDREISDHVLRMHRYRAPGEQDGDAMPLGSAVD
ILATDDPNFSQEDQQDTQIYEKHDNLLHGTTKKKKEKMVSAAFMKKYIHVAKI IKPVL TQESATYIAEEYSRLRSQ
DSMSSDTARTSPVTARTLETILRLATAHAKARMSKTVDLQDAEEAVELVQYAYFKKVLEKEKKRKKRSEDESETE
DEEEKSQEDQEQKRKRRTKTRQPDAGDGSYDPYDFSDTEEMPQVHTPKTADSQETKESQKVELSESRLKAFKVA
LLDVFREAHQAQSIGMNRLTESINRDSEEPFSSVEIQAAALSKMQDDNQVMVSEGIIFLI

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FIGURE 136

TGCTGCGAACCACGTGGGTCCCGGGCGCGTTTCGGGTGCTGGCGGCTGCAGCCGGAGTTCAAACCTAAGCAGCTG
GAAGGAACC**ATG**GCCAACCTGTGAGCGTACCTTCATTGCGATCAAACCAGATGGGGTCCAGCGGGGTCTTGTGGGA
GAGATTATCAAGCGTTTTGAGCAGAAAGGATTCCGCCTTGTTGGTCTGAAATTCATGCAAGCTTCCGAAGATCTT
CTCAAGGAACACTACGTTGACCTGAAGGACCGTCCATTCTTTGCCGGCCTGGTGAAATACATGCACTCAGGGCCG
GTAGTTGCCATGGTCTGGGAGGGGCTGAATGTGGTGAAGACGGGCCGAGTCATGCTCGGGGAGACCAACCCTGCA
GACTCCAAGCCTGGGACCATCCGTGGAGACTTCTGCATACAAGTTGGCAGGAACATTATACATGGCAGTGATTCT
GTGGAGAGTGCAGAGAAGGAGATCGGCTTGTGGTTTCACCCTGAGGAACCTGGTAGATTACACGAGCTGTGCTCAG
AACTGGATCTATGAAT**TGA**CAGGAGGGCAGACCACATTGCTTTTCACATCCATTTCCCCTCCTTCCCATGGGCAGA
GGACCAGGCTGTAGGAAATCTAGTTATTTACAGGAACCTTCATCATAATTTGGAGGGAAGCTCTTGGAGCTGTGAG
TTCTCCCTGTACAGTGTTACCATCCCCGACCATCTGATTAAATGCTTCCTCCCAGC

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FIGURE 137

MANCERTFIAIKPDGVQRGLVGEIIKRFEQKGFRLVGLKFMQASEDLLKEHYVDLKDRPFFAGLVKYMHS GPVVA
MVWEGLVVVKTRVMLGETNPADSKPGTIRGDFCIQVGRNIIHGSDSVESAEKEIGLWFHPEELVDYTSCAQNWI
YE

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FIGURE 138A

GGCTCATAGAGCTGAACAGTTGCAGGATGCGGAGGAGGAAAAAGATGATTCAAATGAAGAAGAAAACAAAGACAG
CCTTGATAGATGATGAAGAAGAGAAAGAAGATCTTGGCGATGAGGATGAAGCAGAGGAAGAAGAGGAGGAGGACAA
CTTGGCTGCTGGTGTGGATGAGGAGAGAAGTGAGGCCAATGATCAGGGGCCCCCAGGAGAGGACGGTGTGACCCG
GGAGGAAGTAGAGCCTGAGGAGGCTGAAGAAGGCATCTCTGAGCAACCCTGCCAGCTGACACAGAGGTGGTGGGA
AGACTCCTTGAGGCAGCGTAAAGTCAGCATGCTGACAAGGGACTGTAGATTTAATGATGCGTTTTCAAGAATAC
ACACCAAAACAATATGTCAGCTTCCCTTTGGCCTGCAGTTTGTACCAAATCCTTAATTTTTCTGAATGAGCAAG
CTTCTCTTAAAGATGCTCTCTAGTCATTTGGTCTCATGGCAGTAAGCCTCATGTATACTAAGGAGAGTCTTCCA
GGTGTGACAAATCAGGATATAGAAAAACAAACGTAGTGTGGGATCTGTTTGGAGACTGGGATGGGAACAAGTTCA
TTTACTTAGGGGTGAGAGAGTCTCGACCAGAGGAGGCCATTCCCAGTCCTAATCAGCACCTTCCAGAGACAAGGC
TGCAGGCCCTGTGAAATGAAAGCCAAGCAGGAGCCTTGGCTCCTGAGCATCCCCAAAGTGTAACGTAGAAGCCTT
GCATCCTTTTTCTTGTGTAAAGTATTTATTTTTGTCAAATTGCAGGAAACATCAGGCACCACAGTGCATGAAAAAT
CTTTCACAGCTAGAAATTGAAAGGGCCTTGGGTATAGAGAGCAGCTCAGAAGTCATCCCAGCCCTCTGAATCTCC
TGTGCTATGTTTTATTTCTTACCTTTAATTTTTCCAGCATTTCCACCATGGGCATTTCAGGCTCTCCACACTCTTC
ACTATTATCTCTTGGTCAGAGGACTCCAATAACAGCCAGGTTTACATGAAGTGTGTTTGTTCATTCTGACCTAAG
GGGTTTAGATAATCAGTAACCATAACCCCTGAAGCTGTGACTGCCAAACATCTCAAATGAAATGTTGTGGCCATC
AGAGACTCAAAGGAAGTAAGGATTTTACAAGACAGATTAAAAAAAATGGTTTTGTCCAAAATATAGTTGTGT
TGATTTTTTTTTAAGTTTTCTAAGCAATATTTTTCAAGCCAGAAGTCTCTAAGTCTTGCCAGTACAAGGTAGTC
TTGTGAAGAAAAGTTGAATACTGTTTTGTTTTCATCTCAAGGGGTTCCTGGGTCTTGAAGTACTTTAATAATAA
CTAAAAAACCACTTCTGATTTTCTTTCAGTGATGTGCTTTTGGTGAAAGAATTAATGAAGTCCAGTACCTGAAAG
TGAAAGATTTGATTTTGTTCATCTTCTGTAATCTTCCAAAGAATTATATCTTTGTAAATCTCTCAATACTCAA
CCTACTGTAAGTACCCAGGGAGGCTAATTTCTTAAAAAAAATCTATCCATCTACTTCTCTCTTACCTGAT
TTATGTGTTAGATAAATTCATGAAATTCGATTCCAAGCATACGAAAGATGCCTAAAGTTGATTCTATGCTCCTT
AGATCCAGACAGAATAATGAGTACAGGTTTATGAAATCTAAAAGTTTCTGTGCTCTTTAAAAAGGAACGTGCAG
TATATTTCTATCTGGCTGTTTAGATAACCCCTTCTTGTATTAATTGTGAGCACGGAGCTCACTGGTGGGGGAGG
TTCTGAAACTCTCTGCCCTCCTGTGGTTGAATGAAGATGTTGCAAGACTTGACAAAAGGAGGTTATTCTTCTGAC
AGCATCAACTTTTAGAGATGGTTCTTTTTCTATCTTTCCAATTTCAGTTACTTGACAGTCTCCTTCCCCAGTATGCT
GAAGTTTGTTAAGAGTCACCAGTAATTGTGCTTTTCAGACAGTAGTGCAGCTTCAAATCAGAGCCATCACTGGG
CTGATGGGCTGGGAGAACCCTTGCCATGTGCTGCTGTTTCTGCCCCCTTAGTCACTGCCATTTCTGCCCCC
TTGGTCTGATGACACACCTTCACCCAAAGTGCCATGGTCTGATGGTGGCAGTTCCATCTCCCTGACATCAGGAAG
CTTTTCTCGATCAGAGCAGAGCGGGGCTGCCTGCCCTCGTGTCACTGGATTCTTTCTCTTATAATCAGCTGAA
ACAGAGTTCTCAAAGAACAGTAACTCAGGTTTCAAGGATTTATGGAATAAGAATGGTTTCATAGTTTGGCTTTT
CTATATAATTCTCCCTCTCAAACCTGAAATATTCATTTTTTTAGTGGAGTATTGACTAGAGAGAAGGTAAGGCA
GAAATACAGTCTACACTGGCTTTTAAAAATGTAAAGCCAATTTCCAACCGGACCCCAAATAGTACAGGTTGAACA
TTCCGTTCCAACAATCCAAACCCCAAATGCTCCAAAATCTTAACTTTGAGTTCCAGCATTCGGTCAGAAGTGG
AAAAATTTACACCTGACCTCATTGACAGGTGGCAGTTACAGTGCAATCAAACCTTTGTTCCATGCCCAAGATTA
TTAAAAATATTGGATAAAATTACCTTCAAGCTATGTTGTATAAGGTGTATATAAAACAAATGAATTTTGTGTTTA
GACTTGGGTCTACTCCCAAGATACCTCATTATATATATACAAAAATCCCAAATCCAAAACATTTGAAACACTT
CTGGTCCCACACATTTTGGATAAGGGATATTTGACCTATATCTAATTATATAATAAGAAAAATGTATTTTCTTTT
TTTTTTTTTTTTTGTAGATGGAGTTTCACTCTTGTGTGCGCCAGGCTGCAATGGCACAATCTTGGCTTACTACAA
CCTCCGCCCTCCCTAGTTCAAGGGATTCTCCTGCCTCAGCCTCCCAGGTAGCTGGGATTACAGGCATGTGCCACCA
TGCTTGGCTAATTTTGTATTTTTAGTAGAGACGGGGTTTTCGCCATGTTGGTCAGACTGGTCTTGAAGTCTTGACC
TCAGGTGATCCGCCCGCCTCAGCCTCCAACGTGCTGGGATTACAGGTGTGAGCCACCGTACCTGGCAGAAAATG
TACTTTCTTCTCAGAAATACTTTTTAAAAAAATTTGAAGGTGAGGAGAAAAACATCTTGGAGAAGAGGACCCAT
TAAACTTTAAATATCTGTGGGAACCATTTTTCTGATTTTCCCTTTTTTAACATCATGGCAAAGATGGGTTTTT
TTCCAACAAAATTTAATTTAATATCTTTCCACTTGAAGATTTTAGGTTTGTTCATACTTAATGAATATAAAA
CTAAAGGAGAAAAAGCCAACCTGAAATAATTTAACTTTATATGAACATTTGATAAGAGTTTGTGGATTTTTCT
GTAGATAATATATTTGATCCAGAACTCAAGTGCATGGAAACATGATTTTGTATTTTAAATCTAAAAAATAA
AATTAATATCATGCTTCCCTCTATTGCAGTATCAGTTATTTAGTCACAGAATGGTATTTTATGTAAATTAATTAAT

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FIGURE 138B

AGGTGAATGCAATGCAGGTAAC TGGTTTTGGAATGGGAATGTGCAGTGCTTTATGTTTGGGGAGTTGGAGCAGGG
TATCTTTTCATCAATTAGAAGGAAAGTTTGAACTTCTGATTACCTTTATGTTGGTTTCTCTTATTATTGTCTC
TTGCTAGATCTGCTAAACCAACCCAGCTTGCTCAGAGATCTCATATTGAAGCAACATACAGGCAATCCACATCTT
TCTTTCCCTTTGAAGTATAGTCATTGGATGGGATGAGGGACAGGGCCTGTTGGGTTACAGGGCCTTGCACTGCA
TGGGCACATACTTAAAAGCTCTTGTGCA TGGAATCCCTGTCTGT TAGCCACAGGCCTCTTTAGCTCTATACATTC
AAAATAACTACTGTAGTAGAAAATAGATAAGCTTCAGCTGAGTTGGCTTTTGATAGTGGA AAAAAAACAAAATTT
GACTTTTTATGGCCAAAATTCCTTGTTGACAGCTGTGATGTTCTAATATGATTTGGGAATATGTCAGTCTACAGA
ACCTGCATCCTGTAAAAACACCTTTGGGGTAGACGATAAAAGTCATTTTTAAGGCAAATACTTACCATGTGACTT
TTTATTACCAAATGCATCAGTAGTGGAGCTGGTATGTTGTTTCATAGGATGGAAACATTAGAAGTCCAGAGAAAA
ATAAATTTTAAAAAAGGTGGAAAAGTTACGGCAAACCTGAGATTTT CAGCATAAAATCTTTAGTATGAAGTGAGA
GAAAGAAGAGGGAGGCTGGTTCTGTTGCTCGTATCAATAGGTTATCTGTGTCCCTCATCTTGGTGTTACAGTGTT
ATTTCTGTCAGTATTATGAATATGTGGTTGACCCATCCTGTCAAATGTACCAACATTTTCGAAAGAATTCATTCA
AATCTCTTATGCCAACAGAAAAGTTCCTTCTTGT TTAATATCTCTTTACCTCAGTCTTACATTTTGATTCTCTGG
AGGAGATTTTAGCTTGTCTTAAAAAGCCAAATTTGGAGTCATCAAGCCTGCTGAACCTGATGGGGCAGCTTTTGG
AACAGCTTTCTGGAAGTAAGAACTTCAGTTGAAAAGCCCTTTGATCGCTTCAGCCCGGGACATGCCCTTCAGATG
GCTTATTCTCAGTAAAGCTTTATGTAGACTGTGACACTGTATATGTGTGACTCGTACAAC TTTGACGTGTTTCTG
AAGTGGTTTAATCGTATTTGTTATTAGCTTCTTTGTGGAAATGCAATTTTATACTAAAAACATTGCTTATTTGC
AATGCAATATGTTATAAATTTGTTGTTTATATTACTGGTATTAGTCTTAGCCTAATGAACCTAATTATTTTCTT
TCTGTATTCTTTGCTTCCTCAAATAGCATCTGCAGCAATTGGAATGAGAAATCCAGATATGTGTTTCAAGTAGTA
CATTGCCTGAATCACAAATCACTTGATCACAGTATTGTATATAATCCCTGATCCTATTTGTTTCATTTTATTGTA
AATTCCCATTTGCATCAAAACCTAATGATAGTGATTGGTAAGTAAAAACAAATGGTGTATTGCTTTTCATACAAG
TGTTTTCACAAAAGCCATTTGCCTAGGCAGCAAAAAATATTAATTTGTT

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FIGURE 139

CTGAAGATGGCGGCTGCTGTAGGACGGTTGCTCCGAGCGTCGGTTGCCCCGACATGTGAGTGCCATTCCCTGGGGC
 ATTTCTGCCACTGCAGCCCTCAGGCCTGCTGCATGTGGAAGAACGAGCTTGACAAATTTATTGTGTTCTGGTTCC
 AGTCAAGCAAAATTATTCAGCACCAGTTCCCTCATGCCATGCACCTGCTGTCACCCAGCATGCACCCTATTTTAAG
 GGTACAGCCGTTGTCAATGGAGAGTTCAAAGACCTAAGCCTTGATGACTTTAAGGGGAAATATTTGGTGCTTTTC
 TTCTATCCTTTGGATTTACCTTTGTGTGTCCTACAGAAATTGTTGCTTTTAGTGACAAAGCTAACGAATTTAC
 GATGTGAAGTGTGAAGTTGTCGCACTCTCAGTGGATTCCCACTTTAGCCATCTTGCCTGGATAAATACACCAAGA
 AAGAATGGTGGTTTGGGCCACATGAACATCGCACTCTTGTGCACTTAAGAGGTCTCTTCATAATTGACCCCAATGGAGTCATCAAGCATTG
 GTGCTGTTAGAAGGTTCTGGTCTTGCACTAAGAGGTCTCTTCATAATTGACCCCAATGGAGTCATCAAGCATTG
 AGCGTCAACGATCTCCCACTGGGCCGAAGCGTGGAAGAAACCTCCGCTTGGTGAAGGCGTTCCAGTATGTAGAA
 ACACATGGAGAAGTCTGCCAGCGAAGTGGACACCGGATTCTCCTACGATCAAGCCAAGTCCAGCTGCTTCCAAA
 GAGTACTTTTCAAGAGTAAATCAGTAGATCACCCATGTGTATCTGCACCTTCTCAACTGAGAGAAGAACCACAGT
 TGAAACCTGCTTTTATCATTTCAGATGGTTATTTGTAGAAGGCAAGGAACCAATTATGCTTGTATTTCATAAGT
 ATTACTCTAAATGTTTTGTTTTGTAAATCTGGCTAGGACCTTTTAAACATGGTTAGTTGCTAGTACAGGAATCG
 TTTATTGGTAACATCTTGGTGGCTGGCTAGCTAGTTTCTACAGAACATAATTTGCCTCTATAGAAGGCTATTCTT
 AGATCATGTCTCAATGGAAACACTCTTCTTTCTTAGCCTTACTTGAATCTTGCCTATAATAAAGTAGAGCAACAC
 ACATTGAAAGCTTCTGATCAACGGTCTGAAATTTTCATCTTGAATGTCTTTGTATTAACTGAATTTCTTTTA
 AGCTAACAAAGATCATAATTTCAATGATTAGCCGTGTAACCTGCAATGAATGTTTATGTGATTGAAGCAAT
 GTGAATCGTATTATTTAAAAAGTGGCAGAGTGAAGTAACTGATCATGCATGATCCCTCATCCCTGAAATTGAGT
 TTATGTAGTCATTTTACTTATTTTATTTCATTAGCTAACTTTGTCTATGTATATTTCTAGATATTGATTAGTGTA
 TCGATTATAAAGGATATTTATCAAATCCAGGGATTGCATTTTGAAATTATAATTATTTCTTTGCTGAAGTATTC
 ATTGTAAACATACAAATAACATATTTAAACAAAAA

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FIGURE 140

MAAAVGRLLRASVARHVSAIPWGISATAALRPAACGRSLTNLLCSGSSQAKLFSTSSSCHAPAVTQHAPYFKGT
AVVNGEFKDLSLDDFKGKYLVLFFYPLDFTFVCPTTEIVAFSDKANEFHDVNCEVVAVSVDSHFSLAWINTPRKN
GGLGHMNIALLSDLTKQISRDIYGVLLGSGGLALRGLFIIDPNGVIKHLVNDLPVGRSVEETLRLVKAFQYVETH
GEVCPANWTPDSPTIKPSPAASKEYFQKVNQ

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FIGURE 141

ACTTGGCCTTACACTCCGCTCGGCTCACC**ATG**TGTCACTCTCGCAGCTGCCACCCGACCATGACCATCCTGCAGG
CCCCGACCCCGGCCCCCTCCACCATCCCGGGACCCCGGCGGGGCTCCGGTCCTGAGATCTTCACCTTCGACCCTC
TCCCGGAGCCCGCAGCGGCCCTGCCGGGCGCCCAGCGCCTCTCGCGGGCACCGAAAGCGCAGCCGCAGGGTCT
CTCTACCCTCGAGTGGTGAGTATCGCCGAAGTGGGCATTTCGCGGTGTGCGCTGCCCTGGAGTCACTGGGGAACGA
CCCGACTCCAGAGCCTCGACCTGACCTGTCTCCTGTTTTGTCTCCCCTTAGTCCGGCGCCAGCTGCCAGTCGAGG
AACCGAACCCAGCCAAAAGGCTTCTCTTTCTGCTGCTCACCATCGTCTTCTGCCAGATCCTGATGGCTGAAGAGG
GTGTGCCGGCGCCCCCTGCCTCCAGAGGACGCCCCTAACGCCGCATCCCTGGCGCCACCCCTGTGTCCCCCGTCC
TCGAGCCCTTTAATCTGACTTCGGAGCCCTCGGACTACGCTCTGGACCTCAGCACTTTCCTCCAGCAACACCCGG
CCGCCTTCT**TAA**CTGTGACTCCCCGCACTCCCCAAAAAGAATCCGAAAAACCACAAAGAAACACCAGGCGTACCTG
GTGCGCGAGAGCGTATCCCCAACTGGGACTTCCGAGGCAACTTGAACTCAGAACACTACAGCGGAGACGCCACCC
GGTGCTTGAGGCGGGACCGAGGCGCACAGAGACCGAGGCGCATAGAGACCGAGGCACAGCCCAGCTGGGCTAGGC
CGGTGGGAAGGAGAGCGTCGTTAATTTATTTCTTATTGCTCCTAATTAATATTTATATGTATTTATGTACGTCT
CCTAGGTGATGGAGATGTGTACGTAATATTTATTTAACTTATGCAAGGGTGTGAGATGTTCCCTCTGCTGTAAA
TGCAGGTCTCTTGATTTATTGAGCTTTGTGGGACTGGTGGAAGCAGGACACCTGGAAGTGCAGGCAAAGTAGGA
GAAGAAATGGGGAGGACTCGGGTGGGGGAGGACGTCCCGGCTGGGATGAAGTCTGGTGGTGGGTCGTAAGTTTAG
GAGGTGACTGCATCCTCCAGCATCTCAACTCCGTCTGTCTACTGTGTGAGACTTCGGCGGACCATTAGGAATGAG
ATCCGTGAGATCCTTCCATCTTCTTGAAGTCGCCTTTAGGGTGGCTGCGAGGTAGAGGGTTGGGGGTTGGTGGGC
TGTCACGGAGCGACTGTCGAGATCGCCTAGTATGTTCTGTGAACACAAATAAAATTGATTTACTGTCTGC

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FIGURE 142

MCHSRSCHPTMTILQAPTPAPSTIPGPRRGSGPEIFTFDPLPEPAAAPAGRPSASRGHRKRSRRVSLPSSGEYRR
SGHSRCALPWSHWGTTRLQSLDLTCLLFCLPLVRRQLPVEEPNPAKRLLFLLLTIVFCQILMAEEGVPAPLPED
APNAASLAPTPVSPVLEPFNLTSEPSDYALDLSTFLQQHPAAF

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FIGURE 143A

ATGGCAGAAGGTGTGAATGAGCCTTGTTTCCCGGGGACTGTGGCATATTTGTCACTAAAGTGGACAAAGGAAGC
ATTGCTGATGGCCGCTTAAGGGTCAATGACTGGCTGCTGAGAATCAACGATGTGGACCTCATCAACAAGGACAAG
AAGCAGGCCATCAAGGCGCTCCTCAATGGGGAGGGGGCCATCAACATGGTTCGTGCGGCGGAGGAAGTCCCTGGGT
GGGAAGGTGGTCACGCCGCTGCACATCAACCTCAGTGGACAGAAAGACAGTGGCATCAGTCTGGAGAATGGAGTG
TATGCTGCCGCTGTGCTGCCTGGAAGCCCTGCCGCTAAAGAAGGGTCCCTTGCTGTGGGAGACAGGATCGTTGCG
ATCAATGGCATTGCACTGGACAACAAGTCTCTGAATGAATGTGAATCTCTGCTGCGGAGCTGCCAGGACTCCCTG
ACCCTGTCCCTCCTGAAGGTATTCCTCAGAGCTCCTCGTGGAGTGGCCAGAACATTTTTGAAAATATCAAAGAC
TCTGATAAGATGCTGAGTTTTTCGAGCCCATGGCCCCGAGGTCCAGGCTCATAACAAACGGAACCTTGATACAGCAC
AATAACTCCACGCAGACAGACATCTTCTACACGGACAGGCTGGAAGACAGGAAGGAGCCAGGCCCCCAGGAGGC
AGCAGCTCCTTTCTGCATAAGCCATTCCCTGGGGGACCTTGCAGGTCTGCCCCCAGGCCTGTCCCAGTGCCTCT
GAGCGTAGCCTGAGCTCCTTCCGCTCAGATGCCTCTGGGGACCGTGGCTTTGGGCTGGTGGACGTGCGTGGCCGG
CGGCCACTGCTGCCCTTTGAGACCGAGGTGGGCCCTGTGGGGTTGGGGAGGCCTCCCTGGACAAGGCAGACTCT
GAAGGCTCCAACAGCGCGGGACCTGGCCCAAGGCCATGCTCAGCTCCACGGCAGTGCCTGAGAAGCTCTCTGTT
TATAAAAAGCCAAAGCAAAGAAAGTCCATCTTTGACCCTAACACTTTCAAACGCCCCCAGACACCCCCAAAATA
GACTACCTGCTTCCAGGTCTGGGCCTGCTCACTCTCCCCAGCCCTCCAAGAGGGCGGGGCCTCTGACACCCCCA
AAACCTCCCAGAAGGAGCGACTCCATTAAGTTCCAGCACAGGCTGGAGACTAGCTCCGAGTCAGAAGCCACTCTG
GTGGGCAGTCCCCATCCACTAGTCCCCCGAGCGCCCTGCCCCCTGACGTGGACCCCGGGGAGCCCATGCACGCA
TCACCCCTCGCAAGGCCAGGGTCCGCATTGCTTCCAGCTACTACCTGAAGGAGATGGGGACTCCTCCCACCTG
CCGGCCAAGAAATCCTGTGATGAGGACCTCACCTCCCAGAAGGTGGATGAGCTGGGGCAGAAGCGTCGCCGGCCA
AAATCTGCTCCCAGTTTTTCGGCCGAAGCTTGCTCCAGTAGTGATTCTGCTCAGTTCTGGAGGAACAGAAGTGT
GTCCCGGCCAGTGGAGAACTCTCCCCGAGCTCCAGGAGTGGGCACCTTACTCGCTGGGCATTCCAGCCGGCAC
AGCAACCCCCCGCTATACCCTAGCAGGCCGTCTGTGGGTACTGTTCCCCGGAGTTTGACCCCCAGCACCACTGTG
AGCTCCATCCTGCGGAACCCCATCTACACTGTGCGCAGTCACAGGGTTCGGCCCTGCAGCTCTCCACCTGCGGCC
CGAGATGCTGGCCCCCAGGGTTTGCATCCAGTGTCCAGCACAGGGACGCCTGAGCCTGGACCTGAGCCACAGG
ACCTGCAGCGACTACTCCGAGATGAGAGCCACCCATGGGTCCAACCTCACTGCCCTCCAGCGCCCGCCTGGGTTCT
TCGAGTAACCTTGCACTTCAAGGCGGAACGCATTAAATCCCATCAACACCAAGATATCCGCGGAGTGTCTGGGC
TCCGAGAGAGGTTCACTGTACATTCTGAATGCAGCACTCCTCCACAGTCACCCCTGAACATCGACACCCTGTCC
TCTTGTAGCCAGTCCCAGACCTCAGCCTCCACATTGCCCAGAATCGCTGTCAACCCCGCGTCCCTCGGGGAGCGG
AGAAAGGACAGGCCTTATGTGGAGGAGCCACGCCACGTGAAGGTGAGAAGGGCTCAGAGCCGCTGGGCATCTCC
ATCGTGAGTGGAGAGAAGGGCGGCATCTACGTCTCCAAGGTGACCGTGGGGAGCATCGCTCACCAGGCTGGCCTC
GAGTATGGGGATCAGTTACTGGAGTTCAACGGCATAAACCTGCGGAGCGCCACGGAGCAGCAGGCGCGGCTCATC
ATCGGGCAGCAGTGTGATACCATCACCATCCTGGCCAGTACAACCCCCACGTGCACCAGCTCAGCAGCCACTCC
CGGTCCAGCTCACACCTGGACCCTGCCGCTACCCACTCCACTCTCCAGGGCAGTGGCACCACCACCCCGGAGCAT
CCATCTGTCTATCGACCCACTGATGGAGCAGGACGAGGGGCTAGCACCCCCCAGCCAAGCAGAGCAGCTCCAGG
ATTGCGGGAGATGCCAACAAGAAGACCCTGGAGCCACGCGTTGTCTTCATCAAAAAGTCCCAGCTGGAGCTTGGG
GTGCACTTGTGTGGTGGGAACCTGCATGGGGTGTGTTGTGGCCGAGGTGGAGGATGACAGTCTGCCAAGGGTCTT
GACGGCCTCGTGCCAGGGGACCTCATCCTGGAGTATGGCAGCCTGGACGTGCGGAACAAGACAGTGGAGGAAGTC
TATGTGGAGATGCTGAAGCCCAGGGATGGCGTCCGCTGAAGGTGCAAGTACCGCCCTGAGGAGTTCACGAAGGCC
AAGGGCCTGCCTGGTGACAGCTTCTACATCAGGGCCCTGTACGACCGGCTGGCAGATGTGGAGCAAGAGTTGAGC
TTTAAAGAAGGACGACATCCTCTACGTGGATGACACCTTACCCCAGGGCACGTTCCGGTCTTGATGGCTTGGCAG
CTGGACGAGAATGCCCAGAAGATCCAGCGCGGGCAGATTCCAGCAAATATGTGATGGACCAAGAATTCTCCAGG
AGGCTCAGCATGTCTGAAGTCAAAGATGACAATAGCGCCACAAAGACGCTGTCAGCGGCTGCACGCCGGTCTTTT
TTTCGGAGGAAACACAAGCACAAACGCAGCGGTCCAAGGACGGGAAAGACCTGCTCGCTTGATGCCTTTTCC
AGTGACTCCATTCCACTCTTTGAAGATTCCGTGAGCCTGGCCTATCAGCGGGTCCAGAAGGTGGACTGCACCGCT
CTGAGGCCTGTCTGATTCTGGGGCCTTTGCTGGACGTGGTGAAGGAGATGCTGGTGAATGAGGCTCCTGGCAAG
TTCTGCAGATGTCCCTTGAGGTGATGAAGGCCTCCCAGCAGGCCATTGAGCGGGGTGTCAAAGATTGCCTGTTT
GTCGACTATAAGCGGAGAAGCGGCCATTTGATGTGACCACTGTGGCGTCAATAAAGGAGATCACAGAAAAGAAC
CGACACTGCCTCCTGGACATTGCTCCGCACGCTATTGAGCGGCTCCACCACATGCACATCTACCCCATTTGTCATC

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FIGURE 143B

TTCATCCACTACAAGAGCGCCAAGCACATCAAGGAGCAGAGAGACCCCATCTACCTGAGGGACAAGGTGACTCAG
AGGCATTCCAAAGAGCAGTTTGAGGCGGCGCAGAAGCTTGAGCAGGAGTACAGCAGGTACTTCACAGGGGTCATC
CAGGGAGGAGCCCTGTCAAGCATTGCACTCAGATCTTGGCAATGGTCAATCAAGAACAAAATAAAGTCTCTGTGG
ATTCCAGCCTGCCCCGTCTAGGAGAATGCTGTGCTGTGGATGACTGCAGCTGGCCGCTGAGGGGACGCCAGACT
CAGCTCTTTTCTAGCGACTGAAAGTAGAAGTCTGTCTGTCTATGAACATGCGGGGGAAGGATCCGGAACCAGGAC
CCAGAAGCACCTCCTTTGTAGACAGAGGGCCACGGCTGCGTGCGATCCAGGCCACAGGCCACACACTCTGCCCCGT
GTCACACGTGTGCTTTAACACAAAACAGATAACACTAAAGACGGGTTCAGCACCCACCTTTCTTTAGCCAGCTGA
TCAGAGATGCTGCAAAGAGAACCTTTCGGATCACTCGTTTACAAGCCTTTTCTAAGTATTTGGTGGTTTATGTTT
ACTTGAACGGCTCCATGTTGCCGGTGCCACGCCCTGTCCCCTCTGTCAACCCCTGTGCTTTGGTGTGGTTT
CGTTCCCGTCTTCAGCAAAACGACCTTGGAACCTCAATGGGGGCTGCTTTGCTTTGGGAGGTTCTTGTGGTGGG
ACCAGAGCTTTGACAAACCTCCTGCTCCTTGGTGGCACCTCTCCTGGAAGGACATCACAACCTCAGGTGCTCAGA
CTGCCTGTGGCAGCAGAACCAAGTGCCCTTGGCATTTCCTCCCACAATGGGGAAGGTGACTTTGGCATTCTTACA
AACTCGTCTCTCGGCCCTTCTCTCCTGCCTTCCACAGCCTCTCGTTTCTCCTCCATCTGTGCTTATTACTTGAGG
ACTGTGTCTGCTCCGTGAGAGCTGCGTGGGCAGGGCTGCAGTGGGGTCCAGGTGGTGTTCAGCTGTGCTGATGCC
TGCCATTGGGTCTCTCCTTAGGCTCTGTAAGTCGTGACAGCCTTCATCAGTGCAATGTTTGAGGGTAATTCTTAA
ACTTTTTAGAGGGTGGCAGGTACATCAGTTCTTTTTGATATGAAAACATTCATGTTTCAGACATTGAATTGAGAG
CTTTTAGGGGAAGCATAATGGTTATTGTCACTATCAACAGTCTAAAAAGAAAACTGAGGTCTTTTTTAATCTTGA
TTACAGCACTCACGGCATGCACCCTACTCAGTGTGGGTGTCTTCGTTTGGGGGCTTTTTTTTTTTTTTGCACCTCT
GAGGCTAGATATGTCTGGCTGAAGATTTGATGTGGTTCCTCCTTAAGCTATGCGTCCGTGTTAATAATAGGTAAGT
TACTGGGCTCTGTGTAAGTGTGTTGGGTAGGACCTATATTTTAATACTGTTCCCTAACATTTTCAATTTTACTAGC
GAGAAATCTTTGATTTCAATTTATTCTTTGTAATTCTAGACACTAGATTGTAGTTTAGCCATAACTGATGTTTTT
TAAAAAGGGATATATTTTCTTGACAGTTGTTCAAAAAAGAGACAAGTTTCAGTCCTCAATGCTGTCCTTTGTTT
TACAGGTACAAGTTTTCTAGCTCAGACAACTATGAAAACTGTAGACTATTCTCAAGGTATTAACCTCGCAGACC
CTCTGGGGGTAGGGGCTGTTTTCTAAGTTACAGGCAGAGTGGGACTGAGATGGTACAGTGTGCACAGACAGGTAC
TGAGCTGACAGACTGGGATTTTCTGTACTAAAATGTTACTTTGTATCAAAAGTTAAACAGGCTTTAGTACAACAA
ATAAAGGTCAATTTCTGT

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FIGURE 144

CGCAACGCCGGTGCCTGAGGAGCGATGCCGAGGGAAATCATCACCCCTACAGTTGGGCCAGTGCGGCAATCAGATT
GGGTTTCGAGTTCTGGAAACAGCTGTGCGCCGAGCATGGTATCAGCCCCGAGGCGATCGTGGAGGAGTTCGCCACC
GAGGGCACTGACCGCAAGGACGTCTTTTTCTACCAGGCAGACGATGAGCACTACATCCCCGGGCCGTGCTGCTG
GACTTGGAACCCCGGGTGATCCACTCCATCCTCAACTCCCCCTATGCCAAGCTCTACAACCCAGAGAACATCTAC
CTGTGCGAACATGGAGGAGGAGCTGGCAACAACCTGGGCCAGCGGATTCTCCCAGGGAGAAAAGATCCATGAGGAC
ATTTTTGACATCATAGACCGGGAGGCAGATGGTAGTGACAGTCTAGAGGGCTTTGTGCTGTGTCACTCCATTGCT
GGGGGGACAGGCTCTGGACTGGGTTCCCTACCTCTTAGAACGGCTGAATGACAGGTATCCTAAGAAGCTGGTGCAG
ACATACTCAGTGTTCCTCAACCAGGACGAGATGAGCGATGTGGTGGTCCAGCCTTACAATCACTCCTCACACTC
AAGAGGCTGACGCAGAATGCAGACTGTCTGGTGGTGTGTTGACAAACACAGCCCTGAACCGGATTGCCACAGACCGC
CTGCACATCCAGAACCCATCCTTCTCCAGATCAACCAGCTGGTGTCTACCATCATGTGAGCCAGCACCACCACC
CTGCGCTACCCTGGCTACATGAACAATGACCTCATCGGCCTCATCGCCTCGCTCATTCCCACCCACGGCTCCAC
TTCCTCATGACCGGCTACACCCCTCTCACTACGGACCAGTCAGTGGCCAGCGTGAGGAAGACCACGGTCTCTGGAT
GTCATGAGGCGGCTGCTGCAGCCCAAGAACGTGATGGTGTCCACAGGCCGAGACCGCCAGACCAACCACTGCTAC
ATCGCCATCCTCAACATCATCCAGGGAGAGGTGGACCCCAACCCAGGTCCACAAGAGCTTGAGAGGATCCGGGAA
CGCAAGTTGGCCAACTTCATCCCGTGGGGCCCCGCCAGCATCCAGGTGGCCCTGTGAGGAAGTCTCCCTACCTG
CCCTCGGCCCCACGGGTCAGCGGGCTCATGATGGCCAACCACACCAGCATCTCCTCGCTCTTCGAGAGAACCTGT
CGCCAGTATGACAAGCTGCGTAAGCGGGAGGCCTTCTGGAGCAGTTCGCAAGGAGGACATGTTCAAGGACAAC
TTTGATGAGATGGACACATCCAGGGAGATTGTGCAGCAGCTCATCGATGAGTACCATGCGGCCACACGGCCAGAC
TACATCTCCTGGGGCACCCAGGAGCAGTGAAGTCCCCCAGGACAGGGGACCCCTCATCTGCCTTACTGGTTGGCCCA
AGCCCTGCCTGACTGACCACCCCTCAGAGCACAGATCAGGGACCTCACGCATCTCTTCTCATATACATGGACT
CTCTGTTGGCCTGCAAACACATTTACTTCTCCTCTTATGAGACTATTTATCTTTAATAAAGCACTGGG

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FIGURE 145

MPREIITLQLGQCGNQIGFEFWKQLCAEHGISPEAIVEEFATEGTDRKDVFFYQADDEHYIPRAVLLDLEPRVIH
SILNSPYAKLYNPENIYLSEHGGGAGNNWASGFSQGEKIHEDIFDIIDREADGSDSLEGFVLCHSIAGGTGSGLG
SYLLERLNDRYPKKLVQTYSVFPNQDEMSDVVVQPYNSSLTLKRLTQNADCLVVDNTALNRIATDRLHIQNPSF
SQINQLVSTIMSASTTTLRYPGYMNNDLIGLIASLIPTPRLHFLMTGYTPTTDDQSVASVRKTTVLDVMRRLQP
KNVMVSTGRDRQTNHCYIAILNIIQGEVDPTQVHKSLQRI RERKLANFIPWGPASIQVALSRKSPYLP SAHRVSG
LMMANHTSISSLFERTCRQYDKLRKREAFLEQFRKEDMFKDNFDEMDTSREIVQQLIDEYHAATRPDYISWGTQE
Q

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FIGURE 146

AGATAACAAGAGTAATCCACAGACTTAAAAC**ATG**AGCTCAGATGCCAGCCAAGGCGTGATTACCACTCCTCCTCC
TCCCAGCATGCCTCACAAAGAGAGATATTTTGACCGCATCAATGAAAATGACCCAGAATACATTAGGGAGAGGAA
CATGTCTCCTGATCTACGACAAGACTTCAACATGATGGAGCAGAGGAAACGAGTTACTCAGATCCTGCAAAGTCC
TGCCTTTCGGGAAGACTTGGAATGCCTTATTCAAGAACAGATGAAGAAAGGCCACAACCCAACTGGATTACTAGC
ATTACAGCAGATTGCAGATTACATCATGGCCAATTCTTTCTCGGGTTTTTCTTCACCTCCTCTCAGTCTTGGCAT
GGTCACACCTATCAATGACCTTCCTGGTGAGATACATCCTCATATGTGAAGGGAGAAAACTTACTCGCTGTAA
ACTTGCCAGCCTGTACAGACTTGTAGACTTGTGGATGGGCACACCTGGCAAATACCTATATCTCAGTAAGAAT
AAGTAAGGAGCAAGACCACATTATAAATTCCAGAGGCCTATCTTTTTCTGAAGCTACAGCCTCCAATTTGGT
GAAAGTCAATATAATAGGAGAAAGTGGTTGACCAGGGAAGTACCAATTTGAAAATTGACCATACAGGATTAGTCC
CCATGCTGCAATCTATTCAACACGTCCTGATGTTAAGTGTGTGCATACACATCCATACCCTTGCAACAGCAGCTGT
ATCCTCCATGAAATGTGGGATCCTTCCAATTTCTCAAGAGTCTCTTCTTCTGGGAGATGTTGCCTATTATGACTA
CCAAGGGTCACCTGGAAGAACAGGAGGAGAGAATTCAACTGCAGAAGGTCTGGGACCAAGTTGTAAGGTGCTGGT
ACTCAGGAATCATGGTGTGGTTGCACCTGGAGAAACATTAGAGGAGGCTTTTCATTATATTTTTAATGTGCAACT
AGCCTGTGAGATTAGGTGCAGGCCCTAGCAGGTGCAGGTGGAGTAGACAATCTCCATGTACTGGACTTTCAGAA
GTATAAAGCTTTCACTTACACTGTAGCAGCGTCTGGTGGAGGAGGTGTGAATATGGGTTCCCATCAAAAATGGAA
GGTTGGCGAAATTGAGTTGAAGGGCTTATGAGGACTCTGGACAACCTGGGGTATAGAACAGGCTATGCTTACAG
GCATCCTCTCATTGAGAGAAGCCTAGGCACAAGAGTGATGTGGAAATCCCAGCAACTGTGACTGCTTTTTCTT
TGAAGACGATACAGTGCCACTCTCTCTCTCAAATACATGGCACAGAGGCAACAGCGTGAAAAACAAGATGGCT
GAACTCACCAATACTTACATGAAAGTGAATGTGCCTGAGGAGTCTCGGAACGGAGAAACCAGTCCCCGAACCA
AATCACGTGGATGAAAGCAGAAGACTCATCTAAAGTTAGTGGTGGAAACACCTATCAAAATTGAAGATCCAATCA
GTTTGTTCCTTTAAACACAAACCCGAATGAGGTACTAGAAAAGAGAAATAAGATTCGGGAACAAAATCGATATGA
CTTGAAGACAGCAGGACCACAATCTCAGTTGCTTGCTGGAATTGTTGTGGATAAGCCACCTTCTACTATGCAATT
TGAAGATGATGATCATGGCCCACCAGCTCCTCCTAACCATTAGTCATCTCACAGAAGGAGAAGTTGAAGAGTA
TAAGAGGACAATCGAACGTAAACAACAAGGCCTAGAAGATGCTGAGCAGGAATTACTCTCAGATGACGCTTCATC
TGTTTCACAAATTCAGTCTCAAACCTCAGTCACCGCAAAATGTCCCTGAAAAATTAGAAGAAAACCATGAGCTGTT
TTCCAAGAGCTTCATCTCCATGGAAGTGCCTGTCATGGTAGTAAATGGCAAGGATGATATGCATGATGTTGAAGA
TGAGCTTGCTAAGCGAGTGAGTAGGTTAAGCACAAAGTACAACCATAGAAAAACATCGAGATTACTATTAAGTCTCC
AGAGAAAATCGAAGAAGTCTGTACCTGAAGGCTCCCTTCAAAATCGCCATCCAAGAAAAAGAAGAAATTCGG
CACTCCTTCTTTTCTGAAAAAGAACAAAAAAAGGAGAAAGTTGAGGCC**TAAA**TAAAGTCTTTTTATAATTATTA
TTATAACAATGTGACATTGCACATCTAAATACCACATTTAAGTTGATCATTAATATGCAATGGTAGATCAGATTG
GGGGATGTAGCAAACTGGACTTTAAGAACTGGAAAGAGGTTTTACAAAAGAAAACTTTTCAATTCTCTCAT
TTTATATGTCCAGAAATGGCTTTGAATTTAAGCAATTACTAGTTTTAATTAGCTCTGCCCTCATGAAGTATTAT
TATAATTCACCATAAACAGCTATCTGTCTGAATTACTTCAGGCCTTCTCCATAATATCTGTTAGAAAGAAATTGC
CAGTGAGCAAGTGAGAATTTTTATTTCTCAATACCTGCTTCACTTGATAATCATATTATAATTTTTTATCATGAT
TATTGACTATATTTTGGAGTCCCATTGTTTCAGTGGGCATTAACAGAATGCTTTAAAACTTCTAAGACAAGAA
TCTATAGCATTAGTATACACTGGCACATAATTTTTTAAAAAGTTTTAAGAAAAGATTCAATTTGGAATTTTTATTCA
CAGTATAAAATTTCTCCTGACCTGAAGTAACTTTGTTTGCCAAAAAGTTGTTTTAATAAACTATAATTTTTGAAAA
CTTCCTTTTTTATTAGTTTAGAAAGCCCCTATTTTTCAACAAAGGGGATTTGTACACATAACATGGGTTATTT
AGTTTAACTCTGGC

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FIGURE 147

MSSDASQGVITTPPPSPMPHKERYFDRINENDPEYIRERNMSPDLRQDFNMMEQRKRVTQILQSPAFREDLECLI
QEQMKKGHNPTGLLALQQIADYIMANSFSGFSSPPLSLGMVTPINDLPGADTSSYVKGEKLTRCKLASLYRLVDL
FGWAHLANTYISVRISKEQDHIIIPRGLSFSEATASNLVKVNIIGEVVDQGSTNLKIDHTGFSPHAAIYSTRPD
VKCVIHIHTLATAAVSSMKCGILPISQESLLLGDVAYYDYQGSLEEQEERIQLQKVLGPSCKVLVLRNHGVVALG
ETLEEAFFHYIFNVQLACEIQVQALAGAGGVNDLHVLDLQKYKAFTYTTVAASGGGGVNMGSHQKWVGEIEFEGLM
RTLDNLGYRTGYAYRHPLIREKPRHKSDEIPATVTAFSFEDDTVPLSPLKYMAQRQQREKTRWLNPNNTYMKVN
VPEESRNGETSPRKTITWKAEDSSKVSGGTPIKIEDPNQFVPLNTNPNEVLEKRNKIREQNRYDLKTAGPQSGL
LAGIVVDKPPSTMQFEDDDHGPPAPPNPFSLTEGELEEYKRTIERKQQGLEDAEQELLSDDASSVSQIQSQTQS
PQNVPEKLEENHELFSKSFISMEVPVMVNGKDDMHDVEDELAKRVSRLSTTTIENIEITIKSPEKIEEVLSP
GSPSKSPSKKKKKFRTPSFLKKNKKKEKVEA

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FIGURE 148

AGATAACAAGAGTAATCCACAGACTTAAAACATGAGCTCAGATGCCAGCCAAGGCGTGATTACCACTCCTCCTCC
TCCCAGCATGCCTCACAAAGAGAGATATTTTGACCGCATCAATGAAAATGACCCAGAATACATTAGGGAGAGGAA
CATGTCTCCTGATCTACGACAAGACTTCAACATGATGGAGCAGAGGAAACGAGTTACTCAGATCCTGCAAAGTCC
TGCCTTTTCGGGAAGACTTGGAATGCCTTATTCAAGAACAGATGAAGAAAGGCCACAACCCAAGTGGATTACTAGC
ATTACAGCAGATTGCAGATTACATCATGGCCAATTCTTTCTCGGGTTTTTCTTCACCTCCTCTCAGTCTTGGCAT
GGTCACACCTATCAATGACCTTCCTGGTGACATACATCCTCATATGTGAAGGGAGAAAACTTACTCGCTGTAA
ACTTGCCAGCCTGTACAGACTTGTAGACTTGTGGATGGGCACACCTGGCAAATACCTATATCTCAGTAAGAAT
AAGTAAGGAGCAAGACCACATTATAATAATTCCCAGAGGCCTATCTTTTTCTGAAGCTACAGCCTCCAATTTGGT
GAAAGTCAATATAATAGGAGAAGTGGTTGACCAGGGAAGTACCAATTTGAAAATTGACCATACAGGATTAGTCC
CCATGCTGCAATCTATTCAACACGTCCTGATGTTAAGTGTGTCATACACATCCATACCCTTGCAACAGCAGCTGT
ATCCTCCATGAAATGTGGGATCCTTCCAATTTCTCAAGAGTCTCTTCTTCTGGGAGATGTTGCCTATTATGACTA
CCAAGGGTCACCTGAAGAACAGGAGGAGAGAAATCAACTGCAGAAGGTTCTGGGACCAAGTTGTAAGGTGCTGGT
ACTCAGGAATCATGGTGTGGTTGCACTTGGAGAAACATTAGAGGAGGCTTTTCATTATATTTTTAATGTGCAACT
AGCCTGTGAGATTAGGTGCAGGCCCTAGCAGGTGCAGGTGGAGTAGACAATCTCCATGTACTGGACTTTCAGAA
GTATAAAGCTTTCACTTACACTGTAGCAGCGTCTGGTGGAGGAGGTGTGAATATGGGTTCCCATCAAAAATGGAA
GGTTGGCGAAATTGAGTTTGAAGGGCTTATGAGGACTCTGGACAACCTTGGGGTATAGAACAGGCTATGCTTACAG
GCATCCTCTCATTGAGAGAAGCCTAGGCACAAGAGTGATGTGGAAATCCCAGCAACTGTGACTGCTTTTTCTT
TGAAGACGATACAGTGCCACTCTCTCCTCTCAAATACATGGCACAGAGGCAACAGCGTGAAAAACAAGATGGCT
GAACTACCAAATACTTACATGAAAGTGAATGTGCCTGAGGAGTCTCGGAACGGAGAAACCAGTCCCCGAACCAA
AATCACGTGGATGAAAGCAGAAGACTCATCTAAAGTTAGTGGTGGAAACACCTATCAAAATTGAAGATCCAAATCA
GTTTGTTCCTTTAAACACAAACCCGAATGAGGTACTAGAAAAGAGAAATAAGATTCGGGAACAAAATCGATATGA
CTTGAAAACAGCAGGACCACAATCTCAGTTGCTTGCTGGAATTGTTGTGGATAAGCCACCTTCTACTATGCAATT
TGAAGATGATGATCATGGCCACCAGCTCCTCCTAACCCATTTAGTCATCTCACAGAAGGAGAACTTGAAGAGTA
TAAGAGGACAATCGAACGTAAACAACAAGGCCTAGAAGAAAACCATGAGCTGTTTTCCAAGAGCTTCATCTCCAT
GGAAGTGCCTGTCTATGGTAGTAAATGGCAAGGATGATATGCATGATGTTGAAGATGAGCTTGCTAAGCGAGTGAG
TAGGTAAAGCACAAAGTACAACCATAGAAAACATCGAGATTACTATTAAGTCTCCAGAGAAAATCGAAGAAGTCCT
GTCACCTGAAGGCTCCCTTTCAAAATCGCCATCCAAGAAAAGAAGAAATTCGCACTCCTTCTTTTTCTGAAAAA
GAACAAAAAAGAGAGAAAGTTGAGGCCTAAAATAAAGTCTTTTTATAATTATTATTATAACAATGTGACATTGCA
CATCTAAATACCACATTTAAGTTGATCATTAAATATGCAATGGTAGATCAGATTGGGGGATGTAGCAAACCTGGACT
TTAAGAAGTGGAAAGAGGTTTTACAAAAGAAAACTTTAGATTTCATCTCTCATTTTTATATGTCCAGAAATGGCT
TTGAATTTTAAGCAATTACTAGTTTTAATTAGCTCTGCCCTCATGAAGTATTATTATAATTCACCATAAACAGCT
ATCTGTCTGAATTACTTCAGGCCTTCTCCATAATATCTGTTAGAAAGAAATTGCCAGTGAGCAAGTGAGAATTTT
TATTTCTCAATACCTGCTTCACTTGATAATCATATTATAATTTTTTATCATGATTATTGACTATATTTTTGGAGT
CCCATTGTTTCAGTGGGCATTAACAGAATGCTTTAAAACTTCTAAGACAAGAATCTATAGCATTAGTATACACT
GGCACATAATTTTTTAAAAAGTTTTAAGAAAAGATTCAATTTGGAATTTTATTCACAGTATAAAATTCCTCACCT
GAAGTAACTTTGTGTTGCCAAAAAGTTGTTTTAATAAACTATAATTTTGAAAACCTCCTTTTTTATTAGTTTAG
AAAGCCCCTTATTTTTCAACAAAGGGGATTTTGTACACATAACATGGGTTATTTAGTTTAACTCTGGC

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FIGURE 149

MSSDASQGVITTPPPSPMPHKERYFDRINENDPEYIRERNMSPDLRQDFNMMEQRKRVITQILQSPAFREDLECLI
QEQMKKGHNPTGLLALQQIADYIMANSFSGFSSPPLSLGMVTPINDLPGADTSSYVKGEKLTRCKLASLYRLVDL
FGWAHLANTYISVRISKEQDHIIIPRGLSFSEATASNLVKVNIIGEVVDQGSTNLKIDHTGFSPHAAIYSTRPD
VKCVIHIHTLATAAVSSMKCGILPISQESLLLGDVAYDYQGSLEEQEERIQKVLGPSCVKLVLRNHGVVALG
ETLEEFHYIFNVQLACEIQVQALAGAGGVDNLHVLDLQKYKAFTYTVAAASGGGGVNMGSHQKWKVGEIEFEGLM
RTLDNLGYRTGYAYRHPLIREKPRHKSDVEIPATVTAFSFEDDTVPLSPLKYMAQRQQREKTRWLNPNNTYMKVN
VPEESRNGETSPRTKITWMKAEDSSKVSGGTPIKIEDPNQFVPLNTNPNNEVLEKRNKIREQNRDYLKTAGPQSQL
LAGIVVDKPPSTMQFEDDDHGPPAPPNPFSLTEGELEEYKRTIERKQQGLEENHELFSKSFISMEVPVMVVGK
DDMHDVEDELAKRVSRLSTTTIENIEITIKSPEKIEEVLSPGSPSKSPSKKKKKFRTPSFLKKNKKKEKVEA

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FIGURE 150

TTTTCCCGCGAAACTCGGCGGCTGAGCGTGGAGGTTCTTGTCTCCCTGGTTTGTGAAGTGC GGAAAACAGAGG
CGCAGTCAATGTCGGGATTTCGACGATCCTGGCATTCTTCTACAGCGACAGCTTCGGGGGCGACGCCAGGCCGACGA
GGGGCAGGCCCGCAAATCGCAGCTGCAGAGGCGCTTCAAGGAGTTCTGCGGCAGTACCGAGTGGGCACCGACCG
CACGGGCTTCACCTTCAAATACAGGGATGAACTCAAGCGGCATTACAACCTGGGGGAGTACTGGATTGAGGTGGA
GATGGAGGATCTGGCCAGCTTTGATGAGGACCTGGCCGACTACTTGTACAAGCAGCCAGCCGAGCACCTGCAGCT
GCTGGAGGAAGCTGCCAAGGAGGTAGCTGATGAGGTGACCCGGCCCCGGCCTTCTGGGGAGGAGGTGCTCCAGGA
CATCCAGGTCATGCTCAAGTCGGACGCCAGCCCTTCCAGCATTCGTAGCCTGAAGTCGGACATGATGTCACACCT
GGTGAAGATCCCTGGCATCATCATCGCGGCCTCTGCGGTCCGTGCCAAGGCCACCCGCATCTCTATCCAGTGCCG
CAGCTGCCGCAACACCCTCACCAACATTGCCATGCGCCCTGGCCTCGAGGGCTATGCCCTGCCCAGGAAGTGCAA
CACAGATCAGGCTGGACGCCCCAAATGCCCATTTGGACCCGTACTTCATCATGCCCGACAAATGCAAATGCGTGGA
CTTCCAGACCCTGAAGCTGCAGGAGCTGCCTGATGCAGTCCCCACGGGGAGATGCCCAGACACATGCAGCTCTA
CTGCGACAGGTACCTGTGTGACAAGGTCGTCCCTGGGAACAGGGTTACCATCATGGGCATCTACTCCATCAAGAA
GTTTGGCCTGACTACCAGCAGGGGCCGTGACAGGGTGGGCGTGGGCATCCGAAGCTCCTACATCCGTGTCCTGGG
CATCCAGGTGGACACAGATGGCTCTGGCCGCAGCTTTGTGTTGGGGCCGTGAGCCCCCAGGAGGAGGAGGAGTTCCG
TCGCTGGCTGCCCTCCCAAATGTCTATGAGGTCACTCCAAGAGCATCGCCCCCTCCATCTTTGGGGGCACAGA
CATGAAGAAGGCCATTGCCTGCCTGCTCTTTGGGGCTCCCGAAAGAGGCTCCCTGATGGACTTACTCGCCGAGG
AGACATCAACCTGCTGATGCTAGGGGACCCTGGGACAGCCAAGTCCAGCTTCTGAAGTTTGTGGAGAAGTGTTT
TCCCATTGGGGTATACACGTCTGGGAAAGGCAGCAGCGCAGCTGGACTGACAGCCTCGGTGATGAGGGACCCTTC
GTCCCGGAATTTTCATCATGGAGGGCGGAGCCATGGTCCTGGCCGATGGTGGGGTCGTCTGTATTGACGAGTTGA
CAAGATGCGAGAAGATGACCGTGTGGCAATCCACGAAGCCATGGAGCAGCAGACCATCTCTATCGCCAAGGCTGG
GATCACCAACCACCTGAACTCCCGCTGCTCCGTCTGGCTGCTGCCAACTCAGTGTTGGGCCGCTGGGATGAGAC
GAAGGGGGAGGACAACATTGACTTTCATGCCACCATCTTGTGCGGCTTCGACATGATCTTCATCGTCAAGGATGA
GCACAATGAGGTGAGGGATGTGATGCTGGCCAAGCATGTCATCACTCTGCACGTGAGTGCAGTACACAGACACA
GGCTGTGGAGGGCGAGATTGACCTGGCCAAGCTGAAGAAGTTTATTGCCTACTGCCGAGTGAAGTGTGGCCCCCG
GCTGTGAGCAGAGGCTGCAGAGAACTGAAGAACCCTACATCATCATGCGGACGGGGCCCGTCAGCACGAGAGG
GACAGTGACCGCGTCCAGCATCCCCATCACTGTGCGGCAGTTGGAGGGCCATTGTGCGCATCGCGGAAGCCCTCAG
CAAGATGAAGCTGCAGCCCTTCGCCACAGAGGCAGATGTGGAGGAGGCCCTGCGGCTCTTCCAAGTGTCCACGTT
GGATGCTGCCTTGTCCGGTACCCTGTGAGGGGTGGAGGGCTTCACCAGCCAGGAGGACCAGGAGATGCTGAGCCG
CATCGAGAAGCAGCTCAAGCGCCGCTTTGCCATTGGCTCCCAGGTGTCTGAGCACAGCATCATCAAGGACTTCAC
CAAGCAGAAATACCCGGAGCACGCCATCCACAAGGTGCTGCAGCTCATGCTGCGGCGCGGCGAGATCCAGCATCG
CATGCAGCGCAAGGTTCTTACCGCCTCAAGTAGTCGCGCCGCTCACTGGACTCATGGACTCGCCACGCTCGCC
CTCCTTGCCGCTGCCTGCCATTGACAATGTTGCTGGGACCTCTGCCTCCCCACTGCAGCCCTCGAACTTCCCAGG
CACCCTCCTTTCTGCCCCAGAGGAAGGAGCTGTAGTGTCTGCTGCCTCTGGGCGCCGCTCTAGCGGGTTCTGG
GAAGTGTGCTTTTGGCATCCGTTAATAATAAAGCCACGGTGTGTTTCAGGT

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FIGURE 151

MSGFDDPGIFYSDSFGGDAQADEGQARKSQLQRRFKEFLRQYRVGTDRTGFTFKYRDELKRHYNLGEYWIEVEME
DLASFDEDLADYLYKQPAEHLQLLEEAAKEVADEVTRPRPSGEEVLQDIQVMLKSDASPSSIRSLKSDMMSHLVK
IPGIIIAASAVRAKATRISIQCRSCRNTLTNIAMRPGLEGYALPRKCNTDQAGRPKCPLDPYFIMPDKCKCVDFQ
TLKLQELPDAPVPHGEMPRHMLYCDRYLCDKVVPGNRVTIMGIYSIKKFGLTTSRGRDRVGVGIRSSYIRVLGIQ
VDTDGSGRSFAGAVSPQEEEEFRRLAALPNVYEVISKSIAPSIFFGGTDMKKAIACLLFGGSRKRLPDGLTRRGDI
NLLMLGDPGTAKSQLLKFVEKCSPIGVYTSKGSSAAGLTASVMRDPSSRNFIMEGGAMVLADGGVVCIDEFDKM
REDDRVAIHEAMEQQTISIAGITTTLSRCSVLAAANSVFGRWDETKGEDNIDFMPTILSRFDMIFIVKDEHN
EVRDVMLAKHVITLHVSALTQTQAVEGEIDLAKLKKFIAYCRVKCGPRLSAEAAEKLKNRYIIMRTGPVSTRGTV
TASSIPITVRQLEAIVRIAEALSKMKLQPFATEADVEEALRLFQVSTLDAALSGTSLSGVEGFTSQEDQEMLSRIE
KQLKRRFAIGSQVSEHSIIKDFTKQKYPEHAHVKVLQMLLRGEIQHRMQRKVLYRLK

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FIGURE 152

ATATAACCGCGTGGCCCGCGCGCGCTTCCCTCCCGGCGCAGTCACCGGCGCGGTCTATGGCTGCGACTTCTCT
AATGTCTGCTTTGGCTGCCC GGCTGCTGCAGCCCGCGCACAGCTGCTCCCTTCGCCTTCGCCCTTTCCACCTCGC
GGCAGTTCGAAATGAAGCTGTTGTCAATTTCTGGAAGGAACTGGCCCAGCAGATCAAGCAGGAAGTGCGGCAGGA
GGTAGAAGAGTGGGTGGCCTCAGGCAACAAACGGCCACACCTGAGTGTGATCCTGGTTGGCGAGAATCCTGCAAG
TCACTCCTATGTCTCAACAAAACCAGGGCAGCTGCAGTTGTGGGAATCAACAGTGAGACAATTATGAAACCAGC
TTCAATTTCAGAGGAAGAATTGTTGAATTTAATCAATAAACTGAATAATGATGATAATGTAGATGGCCTCCTTGT
TCAGTTGCCTCTTCCAGAGCATATTGATGAGAGAAGGATCTGCAATGCTGTTTCTCCAGACAAGGATGTTGATGG
CTTTCATGTAATTAATGTAGGACGAATGTGTTTGGATCAGTATTCCATGTTACCGGCTACTCCATGGGGTGTGTG
GGAAATAATCAAGCGAACTGGCATTCCAACCCTAGGGAAGAATGTGGTTGTGGCTGGAAGGTCAAAAAACGTTGG
AATGCCCATTGCAATGTTACTGCACACAGATGGGGCGCATGAACGTCCCGGAGGTGATGCCACTGTTACAATATC
TCATCGATATACTCCCAAAGAGCAGTTGAAGAAACATACAATTCTTGAGATATTGTAATATCTGCTGCAGGTAT
TCCAAATCTGATCACAGCAGATATGATCAAGGAAGGAGCAGCAGTCATTGATGTGGGAATAAATAGAGTTCACGA
TCCTGTAAGTGCACAAACCCAAGTTGGTTGGAGATGTGGATTTTGAAGGAGTCAGACAAAAAGCTGGGTATATCAC
TCCAGTTCCCTGGAGGTGTTGGCCCCATGACAGTGGCAATGCTAATGAAGAATACCATTATTGCTGCAAAAAAGGT
GCTGAGGCTTGAAGAGCGAGAAGTGTGAAGTCTAAAGAGCTTGGGGTAGCCACTAAT**TAA**CTACTGTGTCTTCT
GTGTCACAAACAGCACTCCAGGCCAGCTCAAGAAGCAAAGCAGGCCAATAGAAATGCAATATTTTAAATTTATTC
TACTGAAATGGTTTAAATGATGCCTTGTATTTATTGAAAGCTTAAATGGGTGGGTGTTTCTGCACATACCTCTG
CAGTACCTCACCAGGGAGCATTCCAGTATCATGCAGGGTCTGTGATCTAGCCAGGAGCAGCCATTAACCTAGTG
ATTAATATGGGAGACATTACCATATGGAGGATGGATGCTTCACTTTGTCAAGCACCTCAGTTACACATTGCCTT
TTCTAGGATTGCATTTCCCAAGTGCTATTGCAATAACAGTTGATACTCATTTTAGGTACCAGACCTTTTGAGTTC
AACTGATCAAACCAAAGGAAAAGTGTGCTAGAGAAAATTGGGGAAAAGGTGAAAAAGAAAAATGGTAGTAATT
GAGCAGAAAAAAATTAATTTATATATGTATTGATTGGCAACCAGATTTATCTAAGTAGAACTGAATTGGCTAGGA
AAAAAGAAAAACTGCATGTTAATCATTTTCCTAAGCTGTCTTTTGAGGCTTAGTCAGTTTATTGGGAAAATGTT
TAGGATTATTCTTTGCTATTAGTACTCATTTTATGTATGTTACCCCTCAGTAAGTTCTCCCCATTTTAGTTTTCT
AGGACTGAAAGGATTCTTTTCTACATTATACATGTGTGTTGTGCATATTTGGCTTTTGCTATATACTTTAACTTCA
TTGTTAAATTTTTGTATTGTATAGTTTTCTTTGGTGTATCTTAAACCTATTTTGA AAAACAAACTTGGCTTGAT
AATCATTTGGGCAGCTTGGGTAAGTACGCAACTTACTTTTCCACCAAAGAACTGTCAGCAGCTGCCTGCTTTTCT
GTGATGTATGTATCCTGTTGACTTTTCCAGAAATTTTTTAAGAGTTTGAGTTACTATTGAATTTAATCAGACTTT
CTGATTAAAGGGTTTTCTTTCTTTTTTAATAAAACACATCTGTCTGGTATGGTA

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FIGURE 153

MSALAARLLQPAHSCSLRLRPFHLAAVRNEAVVISGRKLAQQIKQEVQRQVEEWWASGNKRPHLSVILVGENPAS
HSYVLNKTRAAAVVGINSETIMKPASISSEELLNLINKLNDDNDGLLVQLPLPEHIDERRICNAVSPDKDVDG
FHVINVGRMCLDQYSMLPATPWGVWEIIKRTGIPTLGKNVVVAGRSKNVGMPIAMLLHTDGAHERPGGDATVTIS
HRYTPKEQLKKHTILADIVISAAGIPNLITADMIKEGAVIDVGINRVHDPVTAKPKLVGDVDFEGVRQKAGYIT
PVPGGVGPMTVAMLMKNTIIAAKKVLRLEEREVLKSKELGVATN

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FIGURE 154

CTCCACCGCGCGAGAGGCATGGGCACGTGGCTGCCGAGGGTGGCCGAGCTCTGGGAAGAAAAGCCCGTGTGCCT
CTGCATAGCGTCGCTACAGCGCTGACTCGGTGTGGATTGATTGGAAAGGTTTGAGGGAGTACTTGGGAAGCATGG
TGGCACATGATGAGACTGGAGGTCTCCTACCTATTAAGAGGACCATACGAGTCCTAGATGTCAATAACCAAGTCCT
TCAGAGAACAAGAGGAGCCAAGCAATAAAAGAGTTCGACCTCTGGCTCGTGTACGTCCTTGGCAAATTTAATCT
CTCCTGTAAGAAATGGAGCTGTGACAGCTTTTGGTCAAACAATACAGTCATTTACCCCTTCGTGGTGACCACAGAT
CCCCAGCCTCTGCCCAGAAGTTTCTAGCAGGTCAACAGTCCCAACACCCGCCAAGAGAAGGAGCAGTGCAGTGT
GGTCAGAGATGCTGGACATCACCATGAAGGAGTCTCTCACCACCAGGGAGATCAGACGGCAGGAGGCAATATATG
AAATGTCCCGAGGTGAACAGGATTTAATTGAGGATCTCAAACCTTGCAAGAAAGGCCTACCATGACCCCATGTTAA
AGTTGTCCATCATGTGAGAAGAGGAACACACATATATTTGGTGATCTGGACTCTTACATACCTCTGCATGAAG
ATTTGTTGACAAGAATAGGAGAAGCAACCAAGCCTGATGGAACAGTGGAGCAGATTGGTCCATTCTCGTGAGCT
GGTTACCGCGCTTGAATGCCTACAGAGGTTACTGTAGTAACCAGCTGGCAGCCAAAGCTCTTCTTGATCAAAAGA
AACAGGATCCAAGAGTCCAAGACTTCTCCAGCGATGTCTCGAGTCTCCCTTCAGTCGAAAACCTAGATCTTTGGA
GTTTCTTAGATATCCCTCGAAGTCGCCTAGTCAAATACCCCTTTACTGTTAAAAGAAATTTCTTAAACACACTCCAA
AAGAGCACCTGATGTTTACGCTTCTGGAGGATGCTATATTGATAATACAGGGAGTCCCTCTCTGATATCAACTTGA
AGAAAGGTGAATCCGAGTGCCAGTATTACATCGACAAGCTGGAGTACCTGGATGAAAAGCAGAGGGACCCAGAA
TCGAAGCGAGCAAAGTGCTGCTGTGCCATGGGGAGCTGCGGAGCAAGAGTGGACATAAACTTTACATTTTCTGT
TTCAAGACATCTTGGTTCTGACTCGGCCGTCACACGGAACGAACGGCACTCTTACCAGGTTTACCGGCAGCCAA
TCCCAGTCCAAGAGCTAGTCTTAGAAGACCTGCAGGATGGAGATGTGAGAATGGGAGGCTCCTTTGAGGAGCTT
TCAGTAACTCAGAGAAAGCTAAAAATATCTTTAGAATTGCTTCCATGACCCCTCTCCAGCCAGTCTCACACTC
TGCAAGCCAATGACGTGTCCACAAGCAGCAGTGGTTCAACTGTATTGAGCGGCCATTGCCCCCTTCCAGTCGG
CAGGCAGTCCACCTGAGCTGCAGGGCCTGCCGGAGCTGCACGAAGAGTGTGAGGGGAACCAACCCCTCTGCGAGGA
AACTCACAGCCCAGAGGAGGGCATCCACAGTTTCCAGTGTACTCAGGTAGAAGTTGATGAAAACGCTTACAGAT
GTGGCTCTGGCATGCAGATGGCAGAGGACAGCAAGAGCTTAAAGACACACCAGACACAGCCCGGCATCCGAAGAG
CGAGGGACAAAGCCCTTTCTGGTGGCAAACGGAAGAGACTTTGGTGTAGAGAAGGCTCTGTGTGTTAACTGATG
GGAGAGACTGTTTGTATATAAATGTGTACAGTTTTGTTTTCTCGTAAGGGGAGCATCATAGGGTTACTTTATACC
AGTTGTAACATTTTTCATTGTTTTTGGTTGTTCTTTTTTCTTTTTTAAATGGCAGCTAAAGATATACAGATTACTG
TTAAATTGCAGTCCTTTTTTTTTTAAAGATATTTTCTTGAATTATTTAGAACATGGTAAGCCTGGTATTTTTTA
ATCAACAAAATATTTATGAAATGGGTTTTCTCTTAATTCTGGATTATCATATGGCTTTCTAATACCAATTGTAAT
ATTTACAATATTCACCAAACTTAGAATTTTGCAAATGCTGGAATTCTGCCAGTGTCTTTGCTAAGCCTTGCA
TGCAAAATTTGAAATTTAACATTGGCACCCAAACCTACATGGAATGTATGTCTGGAGTATTTCAAACCTTTACA
TTGAAACATAATTTCTTGAAAAACAAACCATAAGCCTGAGGAGGTTTTATCAACTGGAATGCTTTATATTAGT
TTGTTTTTCACTGTACATTCCTCATTTTACATTCATTTAACCTGCCGATTATTTAATTTTTTTATTGTAAGTAG
TTTTTAGCATTGCTTTTATTTTTTACTTTGATGCCTTTTCAAATTGGCATGTCTTTAAAGTATTTTTCTTCCT
GATTAATAATGTGTGTGTATGTGTGTGTGTGTGTATATATATATATTTTTTAAATCACATTAATTTTACCAA
GTGAAACCAAGCCATACTGTTTTTGAGCCAATTAAGAAAATTGCCATTTTTAAAGTGTAGCATTTACGGGTAAAG
ACCCATGAAATGGCTTGATGTATTCTAGACTACTGAAAGAAAACCACTTCAAAGATTTTGTGAAAGTTTTAGTG
TTGTCTGAAATGCAAGAGGGAAGGTGATTGGTAGTGAGTTAAAAGAAAAAGAGAGGAAAAGAGAGTAGTTTTGTC
TTCAAGTAAAATGTCTGGTTGTGCCAGACATTTACAAGTGTGAAAGGAGATAGGAGAAGCTCAACTTGAGGGCG
TGTAGTAAGTTGTAGAAGGCTCGAGGGGACGTGGACTTATTTGCCTTGGTTTGCAATACCTGCAATAATGAGTT
TGAAAAGAAACAATGAAATGTGTTAAAAATTTGACCATATTAGATAAAATTTGGTGGATTTAGTCATAAGATGGA
AAAAGACTGGTGAATCTTTTATTACAAAATGTTTCTGTTAAATGGGATCATCATCTTTGAAAGGGGGGAGGAGG
AGTAAAAGCCCGATTATAATGGTGATCAATTCAGTCAGTGTGACTATTCTGTGAAATATATTTGGCCAGTGGAA
AATGATAATCAGAAAAGACTGTAAATAGATCCATCCAATGATTTCTCTGTACAAATGAATGATACTATTAATAA
AAAAAAAAA

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FIGURE 155

MVAHDETGGLLP IKRTIRVLDVNNQSFREQEEPSNKRVRPLARVTS LANLISPVRNGAVRRFGQTIQSFTLRGDH
RSPASAQKFSSRSTVPTPAKRRSSALWSEMLDITMKESLTTREIRRQEAIYEMSRGEQDLIEDLKLARKAYHDP
LKLSIMSEELTHIFGDLDSYIPLHEDLLTRIGEATKPDGTVEQIGHILVSWLPRLNAYRGYCSNQLAAKALDQ
KKQDPRVQDFLQRCLESPFSRKLDLWSFLDIPRSRLVKYPLLLKEILKHTPKHPDVQLLEDAILIIQGVLS
DIN LKKGESECQYYIDKLEYLDEKQRPRIEASKVLLCHGELRSKSGHKLYIFLFQDILVLRPVTRNERHSYQVYRQ
PIPVQELVLEDLQDGDVRMGGSF RGAF SNSEKAKNIFRIRFHDPSPAQSHTLQANDVFHKQQWFNCIRAAIAPFQ
SAGSPPELQGLPELHEECEGNHPSARKLTAQRRASTVSSVTQVEVDENAYRCGSGMQMAEDSKSLKTHQTQPGIR
RARDKALSGGKRKETLV

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FIGURE 156

AGAGGCTTCCCTGGCTGGTGCCTGAGCCCGGCGTCCCTCGCCCCCGCCCTCCCCGCATCCCTCTCCTCCCTCGC
GCCTGGCCCTGTGGCTCTTCCCTCCCTCCCTCCTTCCCCCCCCCCCCACCCCTCGCCCCGCTGCCCTCCCTCGGCCCA
GCCAGCTGTGCCGGCGTTTGTGGCTGCCCTGCGCCCGGCCCTCCAGCCAGCCTTCTGCCGGCCCCGCCGCGATG

GAGGTGCCCCAGCCGGAGCCCGCGCCAGGCTCGGCTCTCAGTCCAGCAGGCGTGTGCGGTGGCGCCAGCGTCCG
GGCCACCTCCCGGGCCTCCTGCTGGGATCTCATGGCTCCTGGGGTCCCCGGTGCGGGCGGCCGCTTCCCTCGCCG
GTCACCACCCTCACCCAGACCATGCACGACCTCGCCGGGCTCGGCAGCCGCAGCCGCCTGACGCACCTATCCCTG
TCTCGACGGGCATCCGAATCCTCCCTGTCTGCTGAATCCTCCGAATCTTCTGATGCAGGTCTCTGCATGGATTCC
CCCAGCCCTATGGACCCCCACATGGCGGAGCAGACGTTTGAACAGGCCATCCAGGCAGCCAGCCGGATCATTGCA
AACGAGCAGTTTGGCATCAGACGCTTCCAGTCTATGCCGGTGAGGCTGCTGGGGCCACAGCCCCGTGCTTCGGAAC
ATCACCAACTCCAGGCGCCCGACGGCCGGAGGAAGAGCGAGGCGGGCAGTGGAGCTGCCAGCAGCTCTGGGGAA
GACAAGGAGAATGTGCGCTTCTGGAAGGCCGGGTGGGAGCTCTCCGGGAAGAGGAGGGGGCATGCTGGGGTGGT
TCCCTGGCATGTGAGGACCCTCCTCTCCCATCTTGGCTGCAGGATGGATTGTCTTCAAGATGCCATGGAAGCCC
ACACATCCAGCTCCACCCATGCTCTGGCAGAGTGGGCCAGCCGCAGGGAAGCCTTTGCCAGAGACCCAGCTCG
GCCCCGACCTGATGTGTCTCAGTCTGACCGGAAGATGGAAGTGGAGGAGCTCAGCCCCCTGGCCCTAGGTTCG
TTCTCTCTGACCCCTGCAGAGGGGGATACTGAGGAAGATGATGGATTGTGGACATCCTAGAGAGTGACTTAAAG
GATGATGATGCAGTTCCCCCAGGCATGGAGAGTCTCATTAGTGCCCCACTGGTCAAGACCTTGGAAAAGGAAGAG
GAAAAGGACCTCGTCATGTACAGCAAGTGCCAGCGGCTCTTCCGCTCTCCGTCCATGCCCTGCAGCGTGATCCGG
CCCATCCTCAAGAGGCTGGAGCGGCCCCAGGACAGGGACACGCCCGTGCAGAATAAGCGGAGGCGGAGCGTGACC
CCTCCTGAGGAGCAGCAGGAGGCTGAGGAACCTAAAGCCCGCTCCTCCGCTCAAAATCACTGTGTACGATGAG
ATCGAGAACCTCCTGGACAGTGACCACCGAGAGCTGATTGGAGATTACTCTAAGGCCCTTCTCCTACAGACAGTA
GACGGAAAGCACCAAGACCTCAAGTACATCTACCAGAAACGATGGTGGCCCTATTGACGGGCAAGTTCAGCAAC
ATCGTGGATAAGTTTGTGATTGTAGACTGCAGATACCCCTATGAATATGAAGGCGGGCACATCAAGACTGCGGTG
AACTTGCCCTGGAACCGCAGCGCCGAGAGCTTCTACTGAAGAGCCCCATCGCGCCCTGTAGCCTGGACAAGAGA
GTCATCCTCATTTTCCACTGTGAATTCTCATCTGAGCGTGGGCCCCGCATGTGCCGTTTCATCAGGGAACGAGAC
CGTGCTGTCAACGACTACCCAGCCTCTACTACCCTGAGATGTATATCCTGAAAGGCGGCTACAAGGAGTTCTTC
CCTCAGCACCCGAACCTTCTGTGAACCCAGGACTACCGGCCCATGAACCACGAGGCCCTCAAGGATGAGCTAAAG
ACCTTCCGCTCAAGACTCGCAGCTGGGCTGGGGAGCGGAGCCGGCGGGAGCTCTGTAGCCGGCTGCAGGACCAG
TGAGGGGCCTGCGCCAGTCTGTACCTCCCTTGCTTTTCGAGGCCTGAAGCCAGCTGCCCTATGGGCCTGCCGG
GCTGAGGGCCTGCTGGAGGCCTCAGGTGCTGTCCATGGGAAAGATGGTGTGGTGTCTGCCTGTCTGCCCCAGCC
CAGATTCCTCTGTGTATCCCATCATTTTCCATATCCTGGTGCCCCCACCCCTGGAAGAGCCCAGTCTGTTGAG
TTAGTTAAGTTGGGTAAATACCAGCTTAAAGGCAGTATTTTGTGTCTCCAGGAGCTTCTGTTTCTTGTAGG
GTTAACCCTTCATCTTCTGTGTCTGAAACGCTCCTTTGTGTGTGTGTGTCAGCTGAGGCTGGGGAGAGCCGTGGT
CCCTGAGGATGGGTGAGAGCTAAACTCCTTCCCTGGCCTGAGAGTCAGCTCTCTGCCCTGTGTACTTCCCGGGCCA
GGGCTGCCCCAATCTCTGTAGGAACCGTGGTATGTCTGCCATGTTGCCCTTCTCTTTTCCCTTTCCTGTCC
CACCATACGAGCACCTCCAGCCTGAACAGAAGCTCTTACTCTTTTCTATTTTCAGTGTTACCTGTGTGCTTGGTCT
GTTTGACTTTTACGCCCATCTCAGGACACTTCCGTAGACTGTTTAGGTTCCCCTGTCAAAATACAGTTACCCACTC
GGTCCCAGTTTTTGTGGCCCCAGAAAGGGATGTTATTATCCTTGGGGGCTCCCAGGGCAAGGGTTAAGGCCTGAAT
CATGAGCCTGCTGGAAGCCCAGCCCCACTGCTGTGAACCCTGGGGCCTGACTGCTCAGAACTTGCTGTCTGTCTT
GTTGCGGATGGATGGAAGGTTGGATGGATGGGTGGATGGCCGTGGATGGCCGTGGATGCGCAGTGCCTTGCCATAC
CCAAACCAGGTGGGAGCGTTTTTGTGAGCATGACACCTGCAGCAGGAATATATGTGTGCCTATTTGTGTGGACAA
AAATATTTACACTTAGGGTTTGAGCTATTCAAGAGGAAATGTACAGAAGCAGCTAAACCAAGGACTGAGCACC
CTCTGGATTCTGAATCTCAAGATGGGGGAGGGCTGTGCTTGAAGGCCCTGCTGAGTCATCTGTTAGGGCCTTGG
TTCAATAAAGCACTGAGCAAGTTGAGAAAAAAAAAAAAAAAAAAAAA

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FIGURE 157

MEVPQPEPAPGSALSPAGVCGGAQRPGHLPGLLLGSHGLLGSPVRAAASSPVTTLTQTMHDLAGLGSRSRLTHLS
LSRRASESSLSSSESSESSDAGLCMDSPSPMDPHMAEQTFEQAIQAASRIIRNEQFAIRRFQSMPVRLLGHSPLR
NITNSQAPDGRRKSEAGSGAASSSGEDKENVRFWKAGVGALREEEGACWGGSLACEDPPLPSWLQDGFVFKMPWK
PTHPSSSTHALAEWASRREAFQRPSSAPDLMCLSPDRKMEVEELSPLALGRFSLTPAEGDTEEDDGFVDILES
KDDDAVPPGMESLISAPLVKILEKEEEKDLVMYSKCQRLFRSPSPMPCSVIRPILKRLEPQDRDTPVQNKRRSV
TPPEEQEAEFPKARVLRKSLCHDEIENLLSDHRELIGDYSAFLLQTVDGKHQDLKYISPETMVALLTGKFS
NIVDKFVIVDCRYPYEGGHIKTAVNPLERDAESFLLKSPIAPCSLDKRVILIFHCEFSSESGPRMCRFIRER
DRAVNDYPSLYPEMYILKGGYKEFFPQHNPFCFPQDYRPMNHEAFKDELKTFRLKTRSWAGERSRRELCSRLQD
Q

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FIGURE 158A

CTGCGGCCGCCTGGTTTCTTGCCTTAAGGAGCCCCATTGCCTTTCCCGCTGAAGTCTAGATGTTGACATGTAATAA
AGCGGGCAGCAGGATGGTGGTGGATGCGGCCAACTCCAATGGGCCCTTCCAGCCCGTGGTCCTTCTCCATATTCTG
AGATGTTCTCCTGCTGATCAAGAGAAGCTTTTTATCCAGAAGTTACGTCAGTGTTGCGTCCTCTTTGACTTTGT
TTCTGATCCACTAAGTGACCTAAAGTGGAAGGAAGTAAAACGAGCTGCTTTAAGTGAAATGGTAGAATATATCAC
CCATAATCGGAATGTGATCACAGAGCCTATTTACCCAGAAGTAGTCCATATGTTTGCAGTTAACATGTTTCGAAC
ATTACCACCTTCTCCTCAATCCTACGGGAGCGGAATTTGACCCGGAGGAAGATGAACCAACGTTAGAAGCAGCCTG
GCCTCATCTACAGCTTGTTTATGAATTTTCTTAAGATTTTGTAGAGTCTCCAGATTTCCAACCTAATATAGCGAA
GAAATATATTGATCAGAAGTTTGTATTGCAGCTTTTAGAGCTCTTTGACAGTGAAGATCCTCGGGAGAGAGATTT
TCTTAAACCACCTTTCACAGAATCTATGGGAAATTCCTAGGCTTGAGAGCTTACATCAGAAAACAGATAAATAA
TATATTTTATAGGTTTATTTATGAAACAGAGCATCATAATGGCATAGCAGAGTTACTGGAAATATTGGGAAGTAT
AATTAATGGATTTGCCTTACCCTAAAAGAGAGCACAAGATTTTCTTATTGAAGGTGTTACTACCTTTGCACAA
AGTGAAATCTCTGAGTGTCTACCATCCCCAGCTGGCATACTGTGTAGTGCAGTTTTTAGAAAAGGACAGCACCTT
CACGGAACCAAGTGGTGATGGCACTTCTCAAATACTGGCCAAAGACTCACAGTCCAAAAGAGTAATGTTCTTAA
CGAATTAGAAGAGATTTTAGATGTCATTGAACCATCAGAATTTGTGAAGATCATGGAACCCCTCTTCCGGCAGTT
GGCCAAATGTGTCTCCAGCCACACTTCCAGGTGGCAGAGCGAGCTCTCTATTACTGGAATAATGAATACATCAT
GAGTTTAATCAGTGACAACGCAGCGAAGATTCTGCCCATCATGTTTCTTCTTGTACCGCAACTCAAAGACCCA
TTGGAACAAGACAATACATGGCTTGATATACAACGCCCTGAAGCTCTTCATGGAGATGAACCAAAGCTATTTGA
TGACTGTACACAACAGTTCAAAGCAGAGAACTAAAAGAGAAGCTAAAAATGAAAGAACGGGAAGAAGCATGGGT
TAAATAGAAAATCTAGCCAAAGCCAATCCCCAGTACACAGTGTATAGTCAAGCCAGCACCATGAGCATTCCGGT
TGCAATGGAGACAGATGGGCCTTTATTTGAAGATGTGCAGATGCTGAGAAAGACAGTGAAGGACGAGGCTCATCA
GGCACAGAAAGATCCGAAGAAGGACCGTCTCTTGCACTCCGCAAGTCCGAGCTGCCTCAGGACCCCCACACCAA
GAAAGCCTTGGAAGCTCACTGCAGGGCCGATGAGCTGGCCTCCAGGACGGCCGCTAGCCTCCGGGGCGCCGCT
CGGGGCCGGGCCCGCCAGTTCTTTTCCGGATTCTGTAGAAAATACATACTTCTGTGCCATACCAATCAGTTACA
CTCAAAGCTTTCTTGACCCCGTTCCGTAGGCAATAACGTGCGTCCGCTCAGCGCGAGATTAGGAGTTCAAACA
ATGGTGACTTCCAGAGCCCGCTGGCAGAGCCGCGGGTTGACGACGGTGTCTCGCAGTGTGCGCGCCACCCAG
CGTAGTCCAAGTCAGACTATTTACAAAGTCAGAGCGATAGGAAAGCACCCCTGCCCTTCATCTTCATGTTCTCCC
AAATGGAACCTTAGGATCTTTTAACATAGGTGGTTCTGTGATAACATCAGTGTTTTCCAAATCAAAGGAACGCTTT
AAAAATAGGACCTATTTTTTAAGACTTTACAGCCTTTGAAATGGTTTCCACGTGATTGTTACGCCAGCAGTTCT
TTTGTGTTGTTTTCAATCTCAGTGAAATGGCTCTTTGCTTTTCGAGTTCTCACGCAACGTACTGGGCAAATGACAA
TCCTCAGCCGCTGGTATTTTCTAAGGGGTCTCTTCACTTTGATGAGTGACATGAACACCGTGTCTCCTTCTCTTG
TGTGTACCTAAAGCCATATTTCCAAGTCTGTGGTACTCCAGGATTCCAGGAGTAAGCCTGTAGAAGAGATTTATT
TTAAAGAGATTGCTCTGAAATTTATCTTAAAGAGCTTGCTCTGTCTACCTTGACAGAAATGGAGTTTTAAAA
TTATGTGTTAATATTTTTATTTGCAGATTTGCTTTCCGTCAACTTAAACATTGTTGCCCTTCAACAAGGCTCTTG
AATTAATAAAATTATAGTCTCTAAGAATCCACATTTTATGGAAAGTTAGAGCAAAATCATTTTGAGTTAAGCCA
GTTCTTAGCCTAATGCAAACCTGCAGCGCCTTTAAGCATAAAGTAACACAACAGCATTGCACGGGGCCGGCACTGC
CGCTGCCTTCACTGAAGGCTGCAGTGCTGTTCTGAGAGCTTGAGGAGGACACGAGGATGACGTTTAGTGGA
GCTCTTTCTGTTGAAAAGAGCTCACGTTATCAACACCTTGTAAGGAAAATACAGTGTCTGAGTTTTCATCGGTCT
TCACATGCTGCTATATATTCCACAGAGTTTCTTGATGTACTGAGCTTTTGTGTTTAGATGGAATAGCACAAGGAG
AAAAATCTTTAACTTAGTGCTTTGTCTATTCTTTATTTCTCTCAGGGTGGCCAGTATTTTGAATTTATCTCT
GCTTGAAAGCTACTTGAGATGTGTACTGCTATTCTAAACACGTGATCTAGTTTCTTTTCTCTGGCATAAGATT
ATATAACTTAATGTTAAGTGTCTTGAGGCATAAAAGACAAAATGTGGCTTATTTTAGGATCTGTTTTTTCATCGA
GGTCTCGGGTATCCTTTCAAAGATAGTGAGAAGCAGACACTGCTCCTTGTGCAGCTCTGGTACCTCCTGCCCACT
GCTGTCACTTCAAGCCACTGGCAATGCTTCTGTCTCGTGTCTTGAGGAAAATCACCTGGGGGGAGGGGACTTC
TTGTGGTAAGAGCAAGTGCAGGTATGAAATGCGAAGATTGCCCCAGCTAAAAGTGGAACAAGTCCGCTTTGTGAGA
TGAATACTTCTGAGAACTTGACAAGTATCTCTCCATTTTACCATTATGAAACTATCATTAACAAAAACAGTT
TAGATGCCTTCTCCTTTTGGAGGAAAAAGGGTGCTTTTATTGTATAAAGCAGCGTCTTATGTATTTTGATATAC
CATTTGTTTGAACCTCCGTCTTTAGCTGATAGATTCTCAAATATCCTTGATTTTGGATGTTTCTGATGTTTGTGAG
AGAGGTTTCTGGGAAGACTCTCTTTTGCCTCGGGAAAAAGCAAAATATCAATGTTTGGGTGACTGTGTAAAGC

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FIGURE 158B

TCAGTGTGTAAGAACATCTTTTTGTCTAGGTTTTCTTTCTGCTCTTTATTGAAGACAAACACTCACCAAAAAGAA
AAATAAAAGTTTTTCAGAGAAACTAATTTTTCTTTGGCAAGAGTATTACTTAATATTTTGGCCTCCTAAAGTTTCCC
TAGTTAGTACTCGGACTCCTGTGCTAATTGTCAGCTTACATATCATTGTATAGAGACTGTTTATTCTGTACCAA
CTGATTTCAAAGTACTACATTGAAAATAAACCGGTGACTGTTTTCTTCATAAAGTTCTGCGTTTGGCATCTTC
ACTCTTTCCAAAATGTATCTGTACATCAGAAATGTCACTATTCCAAGTGTCTTTTAGTGTGGCCTTTAGTATGG
CTTCCTTTTAATATTGTACATACATTGTATCTTTGTTTTATGGTAATAAGTAATAAAAAATGTAGACTTCAAAAA
AAAAGCGGCCGCAG

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FIGURE 159

MVVDAANSNGPFQPVLLHIRDVPPADQEKLF IQKLRQCCVLFDFVSDPLSDLKWKEVKRAALSEMVEYITHNRN
VITEPIYPEVVMFAVNMFRITLPPSSNPTGAEFDPEEDEPTLEAAWPHLQLVYEFFLRFLFESPDFQPNIAKKYID
QKFVLQELLEFDSEDPREDFLKTTLHRIYGKFLGLRAYIRKQINNIFYRFIYETEHNGIAELLEILGSIINGF
ALPLKEEHKIFLLKVLLPLHKVKSLSVYHPQLAYCVVQFLEKDSLTEPVVMALLKYWPKTHSPKEVMFLNELEE
ILDVIEPSEFVKIMEPLFRQLAKCVSSPHFQVAERALYYWNNEYIMSLISDNAAKILPIMFPSLYRNSKTHWNKT
IHGLIYNALKLFMEMNQKLFDDCTQQFKAEKLEKLMKEREAEAWVKIENLAKANPQYTVYSQASTMSIPVAMET
DGPLFEDVQMLRKTVMKDEAHQAQKDPKKDRPLALRKSELPQDPHTKKALEAHCRADELASQDGR

FIGURE 160

CCGGAGGAGTCCGAGAGGAAGCGGAGGCGCGAGCTGGAGGCGGCGGCTCCCGTCGGCCTCCGGCAGGACTGAGCG
CTGGGAGGCCGGAAGGCGGGCGCGCACGGCGGAGAGGCGGGCGGGAGGCCGAGCATATTAATGAAAAGTGCCAT
AAACTGAAAAACCAACATGAGGGTAGCAGGTGCTGCAAAGTTGGTGGTAGCTGTGGCAGTGTTTTACTGACAT
TTTATGTTATTTCTCAAGTATTTGAAATAAAAAATGGATGCAAGTTTAGGAAATCTATTTGCAAGATCAGCATTGG
ACACAGCTGCACGTTCTACAAAGCCTCCAGATATAAGTGTGGGATCTCAAAAGCTTGCCCTGAGAAGCATTTTG
CTTTTAAAATGGCAAGTGGAGCAGCCAACGTGGTGGGACCCAAAATCTGCCTGGAAGATAATGTTTTAATGAGTG
GTGTTAAGAATAATGTTGGAAGAGGGATCAATGTTGCCTTGGCAAATGGAAAAACAGGAGAAGTATTAGACACTA
AATATTTTGACATGTGGGGAGGAGATGTGGCACCATTATTAGATTTCTGAAGGCCATACAAGATGGAACAATAG
TTTTAATGGGAACATACGATGATGGAGCAACCAAACCTCAATGATGAGGCACGGCGGCTCATTGCTGATTGGGGA
GCACATCTATTACTAATCTTGGTTTTAGAGACAACCTGGGTCTTCTGTGGTGGGAAGGGCATTAAAGACAAAAGCC
CTTTTGAACAGCACATAAAGAACAATAAGGATACAAACAAATATGAAGGATGGCCTGAAGTTGTAGAAATGGAAG
GATGCATCCCCCAGAAGCAAGACTAATGGAATGTGGAGAGAATTGAAGAAAGCGCACTTTCACTCTTAATGGGA
GAGCTATAAATGGCAGAGCTATGTGTAAATATTTTAAAGAGCATGCAGCCATCTTGGTGTGTGCATGAGTATTGTC
TCTTTTGATATCAGGATTATTTATTGCTAACGTAAATAGATAGCATTGTAAATAATCATCACAATGATCAAATCA
CTGAACCATGTCTCCGCACATTTCCCTAAAAGTACAATGTTTAGACTGCTATGGTAATACATATTTTAAATTCTA
AAAGCATACACAATGTGTAACCTGAATGGTTTGTGAAAAATATATTGATATATATACTAGTTGCTATGAAAATATC
ATGGAATAATAGGGATTTAGGGTGGATACTTTATTTCTTTTATGTTTCTATATGTTGCGTTGTGATGACATTA
TCTTTTAAATTAAAAAGAGATTTGGCTAGTTGTGTGTGTAATGTTACTTTACAGTCCGACTCTCCTGATGTACCT
CTTTTCATGATCTTTTTCTTTCCTTCCCAAGAACTGAGGAATGTTTAATATGAAAACATACATCGGATATGTGA
AAAGCACAACAAAATTCTTAATGTACACAGTAAAAAAGTAAATATATAAATGTAGATGGCATTTAGGACCACAGC
TTGCTGGATTTGTGTTAGCTATGGGAATAACTTGATTTTGTATAAGCTATTTAGAGTGAGGCTGGAGGTGGCAGC
TTCACAGAAGTGGAGAACCAGGCCAAGTCCCCCTCCCAACCTAATTAGGTCATTACAGGACAGCTAAGTCAGTATA
TTTAGAGCAATACTAGCATACGTTTTCTTAATTGTTATCAGCATTGACCAAGTGGTTTGAAGGAGGCATGCTT
TAATATCACAATAATTTTGATTTGIAAAACCAAGAAATTAATCCTGTGTTTATCTAACTTCATAATAGCAATTATT
GCCCCAAGCTATAGTGGCATATTTACAAAAGTTCTTATTACTGGGCGGACTGATAACATTTAAAAAATAATTGTG
TTTGACCCCAATGACTTTTATACCCAATTCTACATAAAAAATATAGAAGATCTATCTTTTTTTTGTACCTTCAGAT
GTTCACTAAATAACTCAGTTTTTAAAGCAGAAGTTTTAGGGCATTAAATATATGTTTGTGTATGAAGTATCTCAA
CTGGAACATAAATTTAGTGATCAAACCGCATTCACAGTGTAAGGCAGCACTTAAATTTGGAACCTAAAGTTTAG
ATGCATTGTATAAAAAAACCTAAAAGCAGTATCTGTTATTTAGCTGTAAACCAAGTTGGAAGCTATTTCGGATAAT
TTCTTAAATATTGATGAACCTTGGAGTACTGTTTCTTCCCTTCAAACCTGAATGTAATTAATTCATGAATAAATGCA
CCTTATATGTTTTAAACAATCTTTGTATACTTTTGGGATTTTTGGTGCTTATATGCTAAATCACATTCAGCATGTG
TATTTTGACATTTAAAATACTTCCCTCAATTCTGTAAATTAAAAGAATAGTTATTTTACAGTTCCAGGGATTGTG
AAATAAATGTTGCAGTTTTTTAAAATAATGAAAATAAATACTCTTGGTTTTGCTTTGTGAAAAAAAAAAAAAAAAA

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FIGURE 161

MRVAGAAKLVVAVAVFLLTFYVISQVFEIKMDASLGNLFARSALDTAARSTKPPRYKCGISKACPEKHFAFKMAS
GAANVVGPKICLEDNVLMMSGVKNNVGRGINVALANGKTGEVLDTKYFDMWGGDVAPFIEFLKAIQDGTIVLMGTY
DDGATKLNDEARRLIADLGSTSITNLGFRDNWVFCGGKGIKTKSPFEQHIKNNKDTNKYEGWPEVVEMEGCIPQK
QD

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FIGURE 162

CCCAGGCGCAGCCAATGGGAAGGGTCGGAGGCATGGCACAGCCAATGGGAAGGGCCGGGGCACCAAAGCCAATGG
GAAGGGCCGGGAGCGCGCGCGGGAGATTTAAAGGCTGCTGGAGTGAGGGGTGCCCCGTGCACCTGTCCCAG
CCGTCCTGTCTGGCTGCTCGCTCTGCTTCGCTGCGCCTCCACTATGCTCTCCCTCCGTGTCCCGCTCGCGCCCA
TCACGGACCCGCAGCAGCTGCAGCTCTCGCCGCTGAAGGGGCTCAGCTTGGTCGACAAGGAGAACACGCCGCCGG
CCCTGAGCGGGACCCGCGTCTGGCCAGCAAGACCGCGAGGAGGATCTTCCAGGAGCCCACGGAGCCGAAAACCTA
AAGCAGCTGCCCCGGCGTGGAGGATGAGCCGCTGCTGAGAGAAAACCCCGCCGCTTTGTCTCTTCCCCATCG
AGTACCATGATATCTGGCAGATGTATAAGAAGGCAGAGGCTTCCTTTTGGACCGCCGAGGAGGTTGACCTCTCCA
AGGACATTTCAGCACTGGGAATCCCTGAAACCCGAGGAGAGATATTTTATATCCCATGTTCTGGCTTTCTTTGCAG
CAAGCGATGGCATAAGTAAATGAAAACCTTGGTGGAGCGATTTAGCCAAGAAGTTCAGATTACAGAAGCCCGCTGTT
TCTATGGCTTCCAAATTGCCATGGAAAACATACATTCTGAAATGTATAGTCTTCTTATTGACACTTACATAAAAG
ATCCCAAAGAAAGGGAATTTCTCTTCAATGCCATTGAAACGATGCCTTGTGTCAAGAAGAAGGCAGACTGGGCCT
TGCGCTGGATTGGGGACAAAGAGGCTACCTATGGTGAACGTTGTGTAGCCTTTGCTGCAGTGGAAGGCATTTTCT
TTTCCGGTTCTTTTGCCTCGATATTCTGGCTCAAGAAACGAGGACTGATGCCTGGCCTCACATTTTCTAATGAAC
TTATTAGCAGAGATGAGGGTTTACACTGTGATTTTGTCTGCCTGATGTTCAAACACCTGGTACACAAACCATCGG
AGGAGAGAGTAAGAGAAATAATTATCAATGCTGTTCCGATAGAACAGGAGTTCTTCACTGAGGCCTTGCTGTGA
AGCTCATTGGGATGAATTGCACTCTAATGAAGCAATACATTGAGTTTGTGGCAGACAGACTTATGCTGGAAGTGG
GTTTTAGCAAGGTTTTTCAGAGTAGAGAACCATTGACTTTATGGAGAATATTTCACTGGAAGGAAAGACTAACT
TCTTTGAGAAGAGAGTAGGCGAGTATCAGAGGATGGGAGTGATGTCAAGTCCAACAGAGAATCTTTTACCTTGG
ATGCTGACTTCTAAATGAACTGAAGATGTGCCCTTACTTGGCTGATTTTTTTTTTCCATCTCATAAGAAAATCA
GCTGAAGTGTTACCAACTAGCCACACCATGAATTGTCCGTAATGTTTCAATTAACAGCATCTTTAAACTGTGTAGC
TACCTCACAACCAGTCTGTCTGTTTATAGTGCTGGTAGTATCACCTTTTGCCAGAAGGCCTGGCTGGCTGTGAC
TTACCATAGCAGTGACAATGGCAGTCTTGGCTTTAAAGTGAGGGGTGACCCTTTAGTGAGCTTAGCACAGCGGGA
TTAAACAGTCTTTTAAACCAGCACAGCCAGTTAAAGATGCAGCCTCACTGCTTCAACGCAGATTTTAAATGTTTAC
TTAAATATAAACCTGGCACTTTACAAACAAATAAACATTGTTTTGTACTCACGGCGGCGATAATAGCTTGATTTA
TTTGGTTTCTACACCAAATACATTCTCTGACCACTAATGGGAGCCAATTCACAATTCATAAGTGACTAAAGTA
AGTTAAACTTGTGTAGACTAAGCATGTAATTTTTAAGTTTTATTTTAAATGAATTAATAATTTTGTAAACCAACTT
TAAAGTCAGTCTGTGTATACCTAGATATTAGTCAGTTGGTGCCAGATAGAAGACAGGTTGTGTTTTATCCTGT
GGCTTGTGTAGTGTCTGGGATTCTCTGCCCCCTCTGAGTAGAGTGTTGTGGGATAAAGGAATCTCTCAGGGCAA
GGAGCTTCTTAAGTTAAATCACTAGAAATTTAGGGGTGATCTGGGCCTTCATATGTGTGAGAAGCCGTTTCATTT
TATTTCTCACTGTATTTTCTCAACGTCTGGTTGATGAGAAAAATTTCTGAAGAGTTTTCATATGTGGGAGCTA
AGGTAGTATTGTAAATTTCAAGTCATCCTTAAACAAAATGATCCACCTAAGATCTTGCCCCGTGTTAAGTGGTGA
AATCAACTAGAGGTGGTTCTTACAAGTTGTTTCACTTAGTTTTGTTTGGTGTAAAGTAGGTTGTGTGAGTTAATTC
ATTTATATTTACTATGTCTGTTAAATCAGAAATTTTTTATTATCTATGTTCTTCTAGATTTTACCTGTAGTTCAT
ACTTCAGTCACCCAGTGTCTTATTCTGGCATTGTCTAAATCTGAGCATTGTCTAGGGGGATCTTAACTTTAGTA
GGAAACCATGAGCTGTTAATACAGTTTCCATTCAAATATTAATTCAGAATGAAACATAATTTTTTTTTTTTTTT
TGAGATGGAGTCTCGCTCTGTTGCCAGGCTGGAGTGAGTGGCGGATTTTGGCTCACTGTAACTCCCATCTCC
TGGGTTCAAGCAATTCTCCTGTCTCAGCCTCCCTAGTAGCTGGGACTGCAGGTATGTGCTACCACACCTGGCTAA
TTTTTGATTTTTTAGTAGAGATGGAGTTTACCATATTGGTCAGGCTGGTCTTGAACCTCTGACCTCAGGTGATC
CACCCACCTCGGCCTCCCAAAGTGCTGGGGATTGCAGGCGTGATAAACAAATATTCTTAATAGGGCTACTTTGAA
TTAATCTGCCTTTATGTTTGGGAGAAGAAAGCTGAGACATTGCATGAAAGATGATGAGAGATAAATGTTGATCTT
TTGGCCCCATTTGTTAATTGTATTTCAGTATTTGAACGTCGTCCTGTTTATTGTTAGTTTTCTTCATCATTTATTG
TATAGACAATTTTTAAATCTCTGTAATATGATACATTTTCTATCTTTTAAAGTTATTGTTACCTAAAGTTAATCC
AGATTATATGGTCCTTATATGTGTACAACATTAATAATGAAAGGCTTTGTCTTGCAATTGTGAGGTACAGGCGGAAG
TTGGAATCAGGTTTTAGGATTCTGTCTCTCATTAGCTGAATAATGTGAGGATTAACCTTCTGCCAGCTCAGACCAT
TTCTAATCAGTTGAAAGGGAACAAGTATTTCACTCTCAAATTTGAATAATGCACAAGTCTTAAGTGATTAAAA
TAAACTGTTCTTATGTC

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FIGURE 163

MLSLRVPLAPITDPQQQLSPLKGLSLVDKENTPPALSGTRVLASKTARRIFQEPTPKTKAAAPGVEDEPLLRE
NPRRFVIFPIEYHDIWQMYKAEASFWTAEVDLSKDIQHWESLKPEERYFISHVLAFFAASDGIVNENLVERFS
QEVQITEARCFYGFQIAMENIHSEMYSLIDITYIKDPKEREFLFNAIETMPCVKKKADWALRWIGDKEATYGERV
VAFAAVEGIFFSGSFASIFWLKKRGLMPGLTFSNELISRDEGLHCDFACLMFKHLVHKPSEERVREIIINAVRIE
QEFLTEALPVKLIGMNCTLMKQYIEFVADRLMLELGF SKVFRVENPFDFMENISLEGKTNFFEKRVGEYQRMGVM
SSPTENSFTLDADF

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FIGURE 164

GAATTCGGGCGGTCTCGGAGACACGCGGCGGTGTCCTGTGTTGGCC**ATG**GCCGACTACCTGATTAGTGGGGGCA
CGTCCTACGTGCCAGACGACGGACTCACAGCACAGCAGCTCTTCAACTGCGGAGACGGCCTCACCTACAATGACT
TTCTCATTCTCCCTGGGTACATCGACTTCACTGCAGACCAGGTGGACCTGACTTCTGCTCTGACCAAGAAAATCA
CTCTTAAGACCCCACTGGTTTCCTCTCCCATGGACACAGTCACAGAGGCTGGGATGGCCATAGCAATGGCGCTTA
CAGGCGGTATTGGCTTCATCCACCACAACCTGTACACCTGAATTCCAGGCCAATGAAGTTCGGAAAGTGAAGAAAT
ATGAACAGGGATTTCATCACAGACCCTGTGGTCCTCAGCCCCAAGGATCGCGTGCGGGATGTTTTTGAGGCCAAGG
CCCGGCATGGTTTCTGCGGTATCCCAATCACAGACACAGGCCGGATGGGGAGCCGCTTGGTGGGCATCATCTCCT
CCAGGGACATTGATTTTCTCAAAGAGGAGGAACATGACTGTTTTCTTGGAAGAGATAATGACAAAGAGGGAAGACT
TGGTGGTAGCCCCCGCAGCATCACACTGAAGGAGGCAAATGAAATTCTGCAGCGCAGCAAGAAGGGAAAGTTGC
CCATTGTAAATGAAGATGATGAGCTTGTGGCCATCATTGCCCGGACAGACCTGAAGAAGAATCGGGACTACCCAC
TAGCCTCCAAAGATGCCAAGAAACAGCTGCTGTGTGGGGCAGCCATTGGCACTCATGAGGATGACAAGTATAGGC
TGGACTTGCTCGCCAGGCTGGTGTGGATGTAGTGGTTTTGGACTCTTCCCAGGGAAATTCATCTTCCAGATCA
ATATGATCAAGTACATCAAAGACAAATACCCTAATCTCCAAGTCATTGGAGGCAATGTGGTCACTGCTGCCCAGG
CCAAGAACCTCATTGATGCAGGTGTGGATGCCCTGCGGGTGGGCATGGGAAGTGGCTCCATCTGCATTACGCAGG
AAGTGCTGGCCTGTGGGCGGCCCAAGCAACAGCAGTGTACAAGGTGTCAGAGTATGCACGGCGCTTTGGTGTTT
CGGTCAATTGCTGATGGAGGAATCCAAAATGTGGGTCATATTGCGAAAGCCTTGGCCCTTGGGGCCTCCACAGTCA
TGATGGGCTCTCTCCTGGCTGCCACCACTGAGGCCCTGGTGAATACTTCTTTTCCGATGGGATCCGGCTAAAGA
AATATCGCGGTATGGGTTCTCTCGATGCCATGGACAAGCACCTCAGCAGCCAGAACAGATATTTCAAGTGAAGCTG
ACAAAATCAAAGTGGCCCAGGGAGTGTCTGGTGCTGTGCAGGACAAAGGGTCAATCCACAAATTTGTCCCTTACC
TGATTGCTGGCATCCAACACTCATGCCAGGACATTGGTGCCAAGAGCTTGACCCAAGTCCGAGCCATGATGTACT
CTGGGGAGCTTAAGTTTGAGAAGAGAACGTCCTCAGCCCAGGTGGAAGGTGGCGTCCATAGCCTCCATTTCGTATG
AGAAGCGGCTTTTT**TG**AAAAGGGATCCAGCACACCTCCTCGGTTTTTTTTTCAATAAAAAGTTTAGAAAGACCCGA
ATTC

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FIGURE 165

MADYLISGGTSYVPDDGLTAQQLFNCGDGLTYNDFLILPGYIDFTADQVDLTSALTKKITLKTPLVSSPMDTVTE
AGMAIAMALTGGIGFIHHNCTPEFQANEVRKVKKYEQGFITDPVVLSPKDRVRDVFEAKARHGFCGIPITDTGRM
GSRLVGISSRDIDFLKEEEHDCFLEEIMTKREDLVVAPRSITLKEANEILQRSKKGKLPVNEDELVAIIART
DLKKNRDYPLASKDAKKQLLCGAAIGTHEDDKYRLDLLAQAGVDVVLDSSQGNSIFQINMIKYIKDKYPNLQVI
GGNVVTAAQAKNLIDAGVDALRVGMGSGSICITQEV LACGRPQATAVYKVSEYARRFGVPVIADGGIQNVGHIK
ALALGASTVMMGSLLAATTEAPGEYFFSDGIRLKKYRGMGSLDAMDKHLSSQNRIFYSEADKIKVAQGVSGAVQDK
GSIHKFVPYLIAGIQHSCQDIGAKSLTQVRAMMYSGELKFEKRTSSAQVEGGVHSLHSYEKRLF

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FIGURE 166

AGAGCGATCATGTCGCACAAACAAATTTACTATTTCGGACAAATACGACGACGAGGAGTTTGAGTATCGACATGTC
ATGCTGCCCAAGGACATAGCCAAGCTGGTCCCTAAAACCCATCTGATGTCTGAATCTGAATGGAGGAATCTTGGC
GTTTCAGCAGAGTCAGGGATGGGTCCATTATATGATCCATGAACCAGAACCTCACATCTTGCTGTTCCGGCGCCCA
CTACCCAAGAAACCAAAGAAATTGAAGCTGGCAAGCTACTTTTCAGCCTCAAGCTTTACACAGCTGTCCTTACTTC
CTAACATCTTTCTGATAACATTATTAAGTTGCCTTCTTGTTTCTCACTTTGATATTTAAAAGATGTTCAATACAC
TGTTTGAATGTGCTGGTAACTGCTTTGCTTCTTGAGTAGAGCCACCACCACCATAGCCCAGCCAGATGAGTGCTC
TGTTGGACCCACAGCCTAAGCTGAGTGTGACCCAGAACCCACGATGTGCTCTGTATCCAGAACACACTTGGCAGA
TGGAGGAAGCATCTGAGTTTGAGACCATGGCTGTTACAGGGATCATGTAACTTGCTGTTTTTGTCTTTTCTGCC
GGGTGTTGTATGTGTGGTGACTTGCGGATTTATGTTTCAGTGTACTGGAACTTTCCATTTTATTCAAGAAATCT
GTTTCATGTTAAAAGCCTTGATTAAAGAGGAAGTTTTTATAAT

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FIGURE 167

MSHKQIYYSDKYDDEEFYRHVMLPKDIAKLVPKTHLMSESEWRNLGVQQSQGWVHYMIHEPEPHILLFRRPLPK
KPKK

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FIGURE 168

GCGGCGCTCGCGCCAAGGGACGTGTTTCTGCGCTCGCGTGGTCA**ATG**GAGGCGCTGCCGCTGCTAGCCGCGACAAC
TCCGGACCACGGCCGCCACCGAAGGCTGCTTCTGCTGCCGCTACTGCTGTTCTGCTGCCGGCTGGAGCTGTGCA
GGGCTGGGAGACAGAGGAGAGGCCCCGGACTCGCGAAGAGGAGTGCCACTTCTACGCGGGTGGACAAGTGACCC
GGGAGAGGCATCCCGGGTATCGGTCGCCGACCACTCCCTGCACCTAAGCAAAGCGAAGATTCCAAGCCAGCGCC
CTACTGGGAAGGAACAGCTGTGATCGATGGAGAATTTAAGGAGCTGAAGTTAACTGATTATCGTGGGAAATACTT
GGTTTTCTTCTTCTACCCACTTGATTTACATTTGTGTGTCCAAGTAACTGAAATTATCGCTTTTGGCGACAGACTGA
AGAATTCAGATCTATAAATACTGAAGTGGTAGCATGCTCTGTTGATTCACAGTTTACCCATTTGGCCTGGATTAA
TACCCCTCGAAGACAAGGAGGACTTGGGCCAATAAGGATTCCACTTCTTTCAGATTGACCCATCAGATCTCAAA
GGACTATGGTGTATACCTAGAGGACTCAGGCCACACTCTTAGAGGTCTCTTCATTATTGATGACAAAGGAATCCT
AAGACAAATTACTCTGAATGATCTTCCTGTGGGTAGATCAGTGGATGAGACACTACGTTTGGTTCAAGCATTCCA
GTACACTGACAAACACGGAGAAGTCTGCCCTGCTGGCTGGAAACCTGGTAGTGAAACAATAATCCCAGATCCAGC
TGGAAGCTGAAGTATTTGATAAACTGAAT**TG**AGAAATACTTCTTCAAGTTATGATGCTTGAAAGTTCTCAATA
AAGTTCACGGTTTCATTACCA

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FIGURE 169

MEALPLLAATTPDHGRHRRLLLLPLLLFLLPAGAVQGWETEERPRTREEECHFYAGGQVYPGEASRVSVADHSLH
LSKAKISKAPYWEGTAVIDGEFKELKLTDIRGKYLVEFFYPLDFTFVCPTETIIAFGDRLEEFRSINTEVVACSV
DSQFTHLAWINTPRRQGGLGPIRIPLLSDLTHQISKDYGVYLED SGHTLRGLFIIDDKGILRQITLNDLPVGRSV
DETLRLVQAFQYTDKHGEVCPAGWKPGSETIIPDPAGKLKYFDKLN

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FIGURE 170

GGAAAAAGCGACTTGTGGCGGTCGAGCGTGGCGCAGGCGAATCCTCGGCACTAAGCAAAT**ATG**GACCTCGCGGC
GGCAGCGGAGCCGGGCGCCGGCAGCCAGCACCTGGAGGTCCGCGACGAGGTGGCCGAGAAGTGCCAGAACTGTT
CCTGGACTTCTTGGAGGAGTTTCAGAGCAGCGATGGAGAAATTAATACTTGCAATTAGCAGAGGAAGTATTG
TCCTGAGAGAAACACATTGGTTGTGAGTTTTGTGGACCTGGAACAATTAACCAGCAACTTCCACCACCATTCA
AGAGGAGTTCTATAGAGTTTACCCTTACCTGTGTCGGGCCTTGAAAACATTTCGTCAAAGACCGTAAAGAGATCCC
TCTTGCCAAGGATTTTTATGTTGCATTCCAAGACCTGCCTACCAGACACAAGATTCGAGAGCTCACCTCATCCAG
AATTGGTTTGTCTCACTCGCATCAGTGGGCAGGTGGTGCAGGACTCACCCAGTTCACCCAGAGCTTGTGAGCGGAAC
TTTTCTGTGCTTGGACTGTCAGACAGTGATCAGGGATGTAGAACAGCAGTTCAAATACACACAGCCAAACATCTG
CCGAAATCCAGTTTGTGCCAACAGGAGGAGATTCTTACTGGATACAAATAAATCAAGATTTGTTGATTTTCAAAA
GGTTCGTATTCAAGAGACCCAAAGCTGAGCTTCCTCGAGGGAGTATCCCCCGCAGTTTAGAAGTAATTTAAGGGC
TGAAGCTGTGGAATCAGCTCAAGCTGGTGACAAGTGTGACTTTACAGGGACACTGATTGTTGTGCCTGACGTCTC
CAAGCTTAGCACACCAGGAGCACGTGCAGAACTAATTCCCGTGTGCTGAGTGGTGTGATGGATATGAGACAGAAGG
CATTGAGGACTCCGGGCCCTTGGTGTAGGGACCTTTCTTATAGGCTGGTCTTCTTGCCTGCTGTGTTGCGCC
AACCAACCCAAGGTTTGGGGGAAAGAGCTCAGAGATGAGGAACAGACAGCTGAGAGCATTAGAACCAAATGAC
TGTGAAAGAATGGGAGAAAGTGTGTGAGATGAGTCAAGATAAAAATCTATACCACAATCTTGTACCAGCCTGTT
CCCTACTATACATGGCAATGATGAAGTAAACGGGGTGTCTGCTGATGCTCTTGGTGGCGTTCCAAAGACAAC
AGGAGAAGGGACCTCTCTTCGAGGGGACATAAATGTTTGATTGTTGGTGACCAAGTACAGCTAAGAGCCAATT
TCTCAAGCACGTGGAGGAGTTCAGCCCCAGAGCTGTCTACACCAGTGGTAAAGCGTCCAGTGCTGCTGGCTTAAC
AGCAGCTGTTGTGAGAGATGAAGAATCTCATGAGTTTGTGATTGAGGCTGGAGCTTTGATGTTGGCTGATAATGG
TGTGTGTTGTATTGATGAATTTGATAAGATGGACGTGCGGGATCAAGTTGCTATTTCATGAAGCTATGGAACAGCA
GACCATATCCATCACTAAAGCAGGAGTGAAGGCTACTCTGAACGCCCGGACGTCCATTTTGGCAGCAGCAAACCC
AATCAGTGACACTATGACAGATCAAATCATTGAAACAGAATATAAATTTGTCAGTCCCATCATGTCCCGATT
CGATCTCTTCTTTATCCTTGTGGATGAATGTAATGAGGTTACAGATTATGCCATTGCCAGGCGCATAGTAGATTT
GCATTCAAGAATTGAGGAATCAATTGATCGTGTCTATTCCCTCGATGATATCAGAAGATATCTTCTCTTTGCAAG
ACAGTTTAAACCCAAGATTTCCAAAGAGTCAGAGGACTTCATTGTGGAGCAATATAAACATCTCCGCCAGAGAGA
TGTTTCTGGAGTGACCAAGTCTTCATGGAGGATTACAGTGCGACAGCTTGAGAGCATGATTTCGTCTCTCTGAAGC
TATGGCTCGGATGCACTGCTGTGATGAGGTCCAACCTAAACATGTGAAGGAAGCTTTCCGGTTACTGAATAAATC
AATCATCCGTGTGAAACACCTGATGTCAATCTAGATCAAGAGGAAGAGATCCAGATGGAGGTAGATGAGGGTGC
TGGTGGCATCAATGGTCATGCTGACAGCCCTGCTCCTGTGAACGGGATCAATGGCTACAATGAAGACATAAATCA
AGAGTCTGCTCCCAAAGCCTCCTTAAGGCTGGGCTTCTCTGAGTACTGCCGAATCTCTAACCTTATTGTGCTTCA
CCTCAGAAAGGTGGAAGAAGAAGAGGACGAGTCAGCATTAAAGAGGAGCGAGCTTGTTAACTGGTACTTGAAGGA
AATCGAATCAGAGATAGACTCTGAAGAAGAACTTATAAATAAAAAAAGAATCATAGAGAAAGTTATTTCATCGACT
CACACACTATGATCATGTTCTAATTGAGCTCACCCAGGCTGGATTGAAAGGCTCCACAGAGGGAAGTGAGAGCTA
TGAAGAAGATCCCTACTTGGTAGTTAACCTAACTACTTGCTCGAAGAT**TGAG**ATAGTGAAAGTAACTGACCAGA
GCTGAGGAAGTGTGGCACAGCACCTCGTGGCCTGGAGCCTGGCTGGAGCTCTGCTAGGGACAGAAGTGTCTTGG
AAGTGATGCTTCCAGGATTTGTTTTAGAAACAAGAATTGAGTTGATGGTCCTATGTGTCACATTTCATCAGGT
TTCATACCAACACAGGCTTCAGCACTTCCTTTGGTGTGTTTCTGTCCCAGTGAAGTTGGAACCAAATAATGTGT
AGTCTCTATAACCAATACCTTTGTTTTCATGTGTAAGAAAAGGCCCATTAATTTAAGGTATGTGCTGTCTTATT
GAGCAAATAACTTTTTTTCAATTGCCAGCTACTGCTTTTATTTCATCAAAATAAAATAACTTGTCTG

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FIGURE 171

MDLAAAEPGAGSQHLEVRDEVAEKCQKFLDFLEEFQSSDGEIKYLQLAEELIRPERNTLVVSFVDLEQFNQQL
STTIQEEFYRVYPYLCRAKTFVKDRKEIPLAKDFYVAFQDLPTRHKIRELTSSRIGLLTRISGQVVRTHPVHPE
LVSGTFLCLDCQTVIRDVEQQFKYTQPNICRNPVCANRRRFLDTNKS RFVDFQKVRIQETQAELPRGSIPRSLE
VILRAEAVESAQAGDKCDFGTGLIVVPDVSKLSTPGARAETNSRVSGVDGYETEGIRGLRALGVRDLSYRLVFLA
CCVAPTNPFRGGKELRDEEQTAESIKNQMTVKEWEKVFEMSQDKNLYHNLCTSLFPTIHGNDEVKRGVLLMLFGG
VPKTTGEGTSLRGDINVCIVGDPSTAKSQFLKHVEEFSRAVYTSGKASSAAGLTAAVRDEESHEFVIEAGALM
LADNGVCCIDEFDKMDVRDQVAIHEAMEQQTISITKAGVKATLNARTSILAAANPISGHYDRSKSLKQNINLSAP
IMSRFDLFFILVDECNEVTDYAIARRIVDLHSRIEESIDRVYSLDDIRRYLLFARQFKPKISKESEDFIVEQYKH
LRQRDGSGVTKSSWRITVRQLESMIRLSEAMARMHCCDEVQPKHVKEAFRLLNKSIIRVETPDVNLQEEEEIQME
VDEGAGGINGHADSPAPVNGINGYNEDINQESAPKASRLRGFSEYCRISNLIVLHLRKVEEEEDESALKRSELVN
WYLKEIESEIDSEEELINKKRIIEKVIHRLTHYDHVLIELTQAGLKGSTEGSESYEEDPYLVVNPNYLLED

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FIGURE 172

CTGGTCCCGAGCACGAGCTGTGAGGGGATTCACTTGTGTGCGGAACCTCCTCGGAACCATGGCGTCCCTTTCCCTT
GCACCTGTTAACATCTTTAAGGCAGGAGCTGATGAAGAGAGAGCAGAGACAGCTCGTCTGACTTCTTTTATTGGT
GCCATCGCCATTGGAGACTTGGTAAAGAGCACCTTGGGACCCAAAGGCATGGACAAAATTCTTCTAAGCAGTGGA
CGAGATGCCTCTCTTATGGTAACCAATGATGGTGCCACTATTCTAAAAAACATTGGTGTTGACAATCCAGCAGCT
AAAGTTTTAGTTGATATGTCAAGGGTTCAAGATGATGAAGTTGGTGATGGCACTACCTCTGTTACCGTTTTAGCA
GCAGAATTATTAAGGGAAGCAGAATCTTTAATTGCAAAAAAGATTTCATCCACAGACCATCATAGCGGGTTGGAGA
GAAGCCACGAAGGCTGCAAGAGAGGCGCTGTTGAGTTCTGCAGTTGATCATGGTTCCGATGAAGTTAAATTCCGT
CAAGATTTAATGAATATTGCGGGCACAACTTATCCTCAAACTTCTTACTCATCACAAAGACCACTTTACAAAG
TTAGCTGTAGAAGCAGTTCTCAGACTGAAAGGCTCTGGCAACCTGGAGGCAATTCATATTATCAAGAAGCTAGGA
GGAAGTTTGGCAGATTCCATTATTAGATGAAGGCTTCTGTTGGATAAAAAAATTGGAGTAAATCAACCAAAACGA
ATTGAAAATGCTAAAATTCTTATTGCAAATACTGGTATGGATACAGACAAAATAAAGATATTTGGTTCCCGGGTA
AGAGTTGACTCTACAGCAAAGGTTGCAGAAATAGAACATGCGGAAAAGGAAAAAATGAAGGAGAAAGTTGAACGT
ATTCTTAAGCATGGAATAAATTGCTTTATTAACAGGCAATTAATTTATAATTATCCTGAACAGCTCTTTGGTGCT
GCTGGTGTCATGGCTATTGAGCATGCAGATTTTGCAGGTGTGGAACGCCTAGCTCTTGTACAGGTGGTGAAATT
GCCTCTACCTTTGATCACCCAGAACTGGTGAAGCTTGAAGTTGCAAACTTATCGAGGAAGTCATGATTGGAGAA
GACAACTCATTCACTTTTCTGGGGTTGCCCTTGGTGAGGCTTGTACCATTGTTTTGCGTGGTGCCACTCAACAA
ATTTTAGATGAAGCAGAAAGATCATTGCATGATGCTCTTTGTGTTCTTGCGCAAAGTTAAAGGACTCTAGAACA
GTTTATGGAGGAGGCTGTTCTGAGATGTTGATGGCTCATGCTGTGACACAGCTTGCCAATAGAACCAGGCAAA
GAAGCTGTTGCAATGGAGTCTTATGCTAAAGCACTGAGAATGTTGCCAACCATCATAGCTGACAATGCAGGCTAT
GACAGTGCAGACCTGGTGGCACAGCTCAGGGCTGCTCACAGTGAAGGCAATACCACTGCTGGATTGGATATGAGG
GAAGGCACCATTTGGAGATATGGCTATCCTGGGTATAACAGAAAGTTTTCAAGTGAAGCGACAGGTTCTTCTGAGT
GCAGCTGAAGCAGCAGAGGTGATTCTGCGTGTGGACAACATCATCAAAGCGGCACCCAGGAAACGTGTCCCTGAT
CACCACCCCTGTTAAGCATTCCACAGTGCTGTGATCTTTGGACCAGTTTCTAGCAAAGTTGTGTTTGAAAGATA
CTCTATTAAAGAAGACTGTGGAATCTGTTTATCGGTGCCATTATATCCTTAAGTTTGGATATTTAGCTGACCTT
CGCTTTAACATAGGTCTAATTTATTTGCCGTGTCATTTTCCATACAAATCAGTTGATTAAAGGAGTTCATTTCG
CATACTGGGCATTAAAAATAAAAATTTGAACAATGAAAGGAAAAAAGGAGAAAAA

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FIGURE 173

MASLSLAPVNIFKAGADEERAETARLTSFIGAIAIGDLVKSTLGPKGMDKILLSSGRDASLMVTNDGATILKNIG
VDNPAAKVLVDMSRVQDDEVGDGTTSTVLAELLREAESLIAKKIHPQTIIAGWREATKAAREALLSSAVDHGS
DEVKFRQDLMNIAGTTLSKLLTHHKDHFTKLAVEAVLRLKSGNLEAIHIIKKLGGSADSYLDEGFLLDKKIG
VNQPKRIENAKILIAN TGMDTDKIKIFGSRVRVDSTAKVAEIEHAEKEKMKEKVERILKHGINCFINRQLIYNYP
EQLFGAAGVMAIEHADFAGVERLALVTGGEIASTFDHPELVKLGSKLIEEVMIGEDKLIHFSGVALGEACTIVL
RGATQQILDEAERSLHDALCVLAQTVKDSRTVYGGGCSEMLMAHAVTQLANRTPGKEAVAMESYAKALRMLPTII
ADNAGYDSADLVAQLRAAHSEGNTTAGLDMREGTIGDMAILGITESFQVKRQVLLSAAEAAEVILRVDNIIKAAP
RKRVPDHHP

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FIGURE 174

GCCTGAGTGAGTCTCTGGCGTCCCAAATTGCCTGTTTTTCTCGCAGGCTCTATTCCGTTTCGCTGGTTTCGCCACCT
CAGGGGAACG**ATG**GCCATGGAGTCCACAGCCACTGCCGCCGTCGCCGCGGACGTGGTTTCTGCCGACAAAATTGA
AGATGTCCCTGCTCCTTCTACATCTGCAGATAAAGTGGAGAGTCTGGATGTGGATAGTGAAGCTAAGAACTATT
GGGTTTAGGACAGAAACATCTGGTGATGGGGGATATTCCAGCAGCTGTCAATGCATTCCAGGAAGCAGCTAGTCT
TTTAGGTAAGAAGTATGGAGAGACAGCTAATGAGTGTGGAGAAGCCTTCTTTTTCTATGGGAAATCACTTCTGGA
GTTGGCAAGAATGGAGAATGGTGTGTTGGGAAACGCCTTGGAAGGTGTGCATGTGGAAGAGGAAGAAGGAGAAAA
AACAGAAGATGAATCTCTGGTAGAAAATAATGATAACATAGATGAGGAAGCAAGGGAAGAGTTGAGAGAACAGGT
TTATGACGCCATGGGAGAAAAAGAAGGCCAAAAAACAGAAGACAAGTCTTTGGCAAAGCCTGAAACTGATAA
AGAACAGGACAGTGAAATGGAGAAGGGTGGAAAGAGAAGATATGGATATAAGTAAATCTGCAGAGGAGCCACAGGA
AAAAGTTGACTTGACTCTAGATTGGTTAACTGAAACCTCTGAAGAGGCAAAAGGAGGAGCAGCACCAGAAGGACC
GAATGAAGCTGAGGTCACTTCTGGGAAGCCAGAACAGGAAGTACCAGATGCTGAGGAAGAAAAATCAGTTTCTGG
AACTGATGTCCAAGAAGAGTGCAGAGAAAAAGGAGGTGAGGAGAAGCAGGGAGAGGTAATTGTGAGCATAGAGGA
GAAGCCAAAAGAAGTTTCAGAAGAGCAGCCTGTGGTGACTCTAGAAAAGCAGGGCACTGCAGTGGAGGTAGAAGC
AGAGTCTTTAGACCCGACAGTCAAGCCAGTGGATGTGGGTGGGGACGAGCCAGAGGAGAAGGTAGTTACCTCTGA
AAACGAGGCAGGAAAGGCGGTTCTTGAACAACGGTAGGTCAAGAAGTACCACCTGCTGAAGAGTCAACAGAGGT
GCAAACAGAGGCTGCAGAGGCCTCAGCTGTAGAGGCTGGATCAGAAGTCTCTGAAAAGCCTGGGCAGGAGGCTCC
AGTTCTCCCTAAGGATGGTGCAGTCAATGGACCGTCAGTTGTAGGAGATCAGACTCCTATTGAACCACAGACTTC
TATAGAAAGACTGACAGAAACAAAAGATGGCTCAGGACTAGAGGAGAAGGTGAGGGCAAAGCTGGTTCCTAGTCA
GGAGGAGACTAAGCTGTCTGTAGAAGAGTCTGAGGCAGCTGGAGATGGGGTTGATACCAAGGTAGCCCAGGGAGC
TACTGAGAAATCACCTGAAGACAAAGTTCAGATAGCTGCTAATGAAGAGACACAAGAGAGAGAAGAACAGATGAA
AGAGGGTGAAGAACTGAAGGCTCGGAAGAGGATGATAAAGAAAATGATAAGACTGAAGAAATGCCAAATGATTC
AGTCCTTGAAAACAAGTCTCTTCAAGAAAATGAGGAGGAGGAGATTGGGAACCTAGAGCTTGCTGGGATATGCT
GGATTTAGCAAAGATCATTTTTTAAAGGCAAGAAACAAAAGAAGCACAGCTTTATGCTGCCAGGCACATCTTAA
ACTCGGAGAAGTTAGTGTTGAATCTGAAAACATATGTGCAAGCTGTGGAGGAGTTCCAGTCCCTGACCTAACCTGCA
GGAACAGTACCTGGAAGCCCACGACCGTCTGCTTGAGAGACCCACTACCAGCTGGGCTTGCTTATGGGTACAA
CTCTCAGTATGATGAGGCAGTGGCACAGTTCAGCAAATCTATTGAAGTCATTGAGAACAGAATGGCTGTACTAAA
CGAGCAGGTGAAGGAGGCTGAAGGATCGTCTGAATACAAGAAAGAAATTGAGGAATAAAGGAAGTGTACCCGA
AATTAGAGAGAAGATAGAAGATGCAAAGGAGTCTCAGCGTAGTGGGAATGTAGCTGAACTGGCTCTGAAAGCTAC
TCTGGTGGAGAGTTCTACTTCAGGTTTCACTCCTGGTGGAGGAGGCTCTTCAGTCTCCATGATTGCCAGTAGAAA
GCCAACAGACGGTGCTTCCTCATCAAATTGTGTGACTGATATTTCCACCTTGTCAGAAAGAAGAGGAAACCAGA
GGAAGAGAGTCCCGGAAAGATGATGCAAAGAAAGCCAAACAAGAGCCGGAGGTGAACGGAGGCAGTGGGGATGC
TGTCCCGAGTGGAAATGAAGTTTCGGAACCATGGAGGAGGAGGCTGAGAATCAGCTGAAACGCGGAGCAGCAGT
GGAGGGGACACTGGAGGCTGGAGCTACAGTTGAAAGCACTGCATGT**TAAG**AGGGGGCACAGCCTCCTCCCAAGGG
AAAGTGTTTTGTATATAATGTATTTTTTCACTTTTGGAGGATTCTTTTGTATAACTTCAATAAAGATTGTAAG
CAAAAAAAAAA

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FIGURE 175

MAMESTATAA VAADVVSADKIEDVPAPSTSADKVESLDVDSEAKLLGLGQKHLVMGDIPAAVNAFQEAASLLGK
KYGETANECGEAFFFYGKSLLLELARMENGVLGNALEGVHVEEEEGEKTEDESLVENNDNIDEEAREELREQVYDA
MGEKEEA KKTEDKSLAKPETDKEQDSEMEKGGREDMDISKSAEEPQEKVDLTLDWLTETSEEAKGGAAPEGPNEA
EVTSGKPEQEVPDAAAAEESVSGTDVQEEREKGGQEKQGEVIVSIEEKPKEVSEEQPVVTLEKQGTAVEVEAESL
DPTVKPVDVGDEPEEKVVTSENEAGKAVLEQLVGQEVPPAEESPEVQTEAAEASAVEAGSEVSEKPGQEAPVLP
KDGAVNGPSVVG DQTP IEPQTSIERLTETKDGSGLEEKVRACLVP SQEETKLSVEESEAAAGDGVDTKVAQGATEK
SPEDKVQIAANEETQEREEQMKEGEETEGSEEDDKENDKTEEMPND SVLENKSLQENEEEEIGNLELAWDMLDLA
KIIFKRQETKEAQLYAAQAHKLGEVSVESENYVQAVEEFQSCNLNQEYLEAHDRLLAETHYQLGLAYGYNSQY
DEAVAQFSKSIEVIENRMAVLNEQVKEAEGSSEYKKEIEELKELLPEIREKIEDAKESQSRGNVAELALKATLVE
SSTSGFTPGGGGSSVSMIASRKPTDGASSNCVTDISHLVRKKRKPEEESPRKDDAKKAKQEPEVNGGSGDAVPS
GNEVSENMEEEAENQLKRGA AVEGTLEAGATVESTAC

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FIGURE 176

GACTCCTAGGGGCTTGCAGACCTAGTGGGAGAGAAAGAACATCGCAGCAGCCAGGCAGAACCAGGACAGGTGAGG
TGCAGGCTGGCTTTCTCTCGCAGCGCGGTGTGGAGTCTGTCTGCCTCAGGGCTTTTCGGAGCCTGGATCCTC
AAGGAACAAGTAGACCTGGCCGCGGGGAGTGGGGAGGGAAGGGGTGTCTATTGGGCAACAGGGCGGCAAGCCCT
GAATAAAGGGGCGCAGGGCAGGCGCAAGTGCAGAGCCTTCGTTTGCCAAGTCGCCTCCAGACCGCAGACATGAAA
CTTGTCTTCTCGTCTGTCTTCTCGGGGCCCTCGGACTGTGTCTGGCTGGCCGTAGGAGAAGGAGTGTTCAG
TGGTGCGCCGTATCCCAACCCGAGGCCACAAAATGCTTCCAATGGCAAAGGAATATGAGAAAAGTGCCTGGCCCT
CCTGTGAGCTGCATAAAGAGAGACTCCCCCATCCAGTGTATCCAGGCCATTGCGGAAAACAGGGCCGATGTGTG
ACCCTTGATGGTGGTTTCATATACGAGGCAGGCCTGGCCCCCTACAACTGCGACCTGTAGCGGCGGAAGTCTAC
GGGACCGAAAAGACAGCCACGAACTCACTATTATGCCGTGGCTGTGGTGAAGAAGGGCGGCAGCTTTTCAGCTGAAC
GAACTGCAAGGTCTGAAGTCTGCCACACAGGCCTTCGCAGGACCGCTGGATGGAATGTCCCTACAGGGACACTT
CGTCCATTCTTGAATTGGACGGGTCCACCTGAGCCATTGAGGCAGCTGTGGCCAGGTTCTTCTCAGCCAGCTGT
GTTCCCGGTGCAGATAAAGGACAGTTCCCCAACCTGTGTGCGCTGTGTGCGGGGACAGGGGAAAACAAATGTGCC
TTCTCTCTCCAGGAACCGTACTTCAGCTACTCTGGTGCCTTCAAGTGTCTGAGAGACGGGGCTGGAGACGTGGCT
TTTATCAGAGAGAGCACAGTGTGAGGACCTGTCAGACGAGGCTGAAAGGGACGAGTATGAGTTACTCTGCCCCA
GACAACACTCGGAAGCCAGTGGACAAGTTCAAAGACTGCCATCTGGCCCGGTCCCTTCTCATGCCGTTGTGGCA
CGAAGTGTGAATGGCAAGGAGGATGCCATCTGGAATCTTCTCCGCCAGGCACAGGAAAAGTTTGAAAGGACAAG
TCACCGAAATTCAGCTCTTTGGCTCCCTAGTGGGCAGAAAGATCTGCTGTTCAAGGACTCTGCCATTGGGTTT
TCGAGGGTGGCCCCGAGGATAGATTCTGGGCTGTACCTTGGCTCCGGCTACTTCACTGCCATCCAGAACTTGAGG
AAAAGTGAGGAGGAAGTGGCTGCCCGGCGTGCAGCGGTGCTGTGGTGTGCGGTGGGCGAGCAGGAGCTGCGCAAG
TGTAACCAGTGGAGTGGCTTGAGCGAAGGCAGCGTGACCTGCTCCTCGGCCTCCACCACAGAGGACTGCATCGCC
CTGGTGTGAAAGGAGAAGCTGATGCCATGAGTTTGGATGGAGGATATGTGTACACTGCATGCAAATGTGGTTTG
GTGCCTGTCTTGGCAGAGAACTACAAATCCCAACAAAGCAGTGACCTGATCCTAACTGTGTGGATAGACCTGTG
GAAGGATATCTTGTGTGGCGGTGGTTAGGAGATCAGACACTAGCCTTACCTGGAACCTCTGTGAAAGGCAAGAAG
TCCTGCCACACCGCCGTGGACAGGACTGCAGGCTGGAATATCCCCATGGGCCTGCTCTTCAACCAGACGGGCTCC
TGCAAAATTTGATGAATATTTTCACTCAAAGCTGTGCCCTGGGTCTGACCCGAGATCTAATCTCTGTGCTCTGTGT
ATTGGCGACGAGCAGGGTGAGAATAAGTGCCTGCCAACAGCAACGAGAGATACTACGGCTACACTGGGGCTTTT
CGGTGCCTGGCTGAGAATGCTGGAGACGTTGCATTTGTGAAAGATGTCACTGTCTTGCGAAGACTGATGGAAAT
AACAATGAGGCATGGGCTAAGGATTTGAAGCTGGCAGACTTTGCGCTGCTGTGCCTCGATGGCAAACGGAAGCCT
GTGACTGAGGCTAGAAGCTGCCATCTTGCCATGGCCCCGAATCATGCCGTGGTGTCTCGGATGGATAAGGTGGAA
CGCCTGAAACAGGTGCTGCTCCACCAACAGGCTAAATTTGGGAGAAATGGATCTGACTGCCCGGACAAGTTTTC
TTATTCCAGTCTGAAACCAAAAACCTTCTGTTCAATGACAACACTGAGTGTCTGGCCAGACTCCATGGCAAAACA
ACATATGAAAAATATTTGGGACCACAGTATGTCGAGGCATTACTAATCTGAAAAAGTGCTCAACCTCCCCCTC
CTGGAAGCCTGTGAATTCCTCAGGAAGTAAACCGAAGAAGATGGCCAGCTCCCCAAGAAAGCCTCAGCCATTC
ACTGCCCCCAGCTCTTCTCCCCAGGTGTGTTGGGGCCTTGGCTCCCTGCTGAAGGTGGGGATTGCCCATCCATC
TGCTTACAATTCCTGCTGTGCTCTTAGCAAGAAGTAAATGAGAAATTTGTTGATATTCAAAAAAA

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FIGURE 177

MKLVFLVLLFLGALGLCLAGRRRRSVQWCAVSQPEATKCFQWQRNMRKVRGPPVSCIKRDSPIQCIQAI AENRAD
AVTLDGGFIYEAGLAPYKLRPVAAEVYGTERQPRTHYYAVAVVKKGGSFQLNELQGLKSCHTGLRRTAGWNVPTG
TLRPFLNWTGPPEPIEAAVARFFSASCVPGADKGQFPNLCRLCAGTGENKCAFSSQEPYFSYSGAFKCLRDGAGD
VAFIRESTVFEDLSDEAERDEYELLCPDNTRKPVDFKDCHLARVPSHAVVARSVNGKEDAIWNLLRQAQEKFGK
DKSPKFQLFGSPSGQKDLLFKDSAIGFSRVPPRIDSGLYLGSGYFTAIQNLRKSEEEVAARRARVVWCAVGEQEL
RKCQWWSGLSEGSVTCSSASTTEDCIALVLKGEADAMSLDGGYVYTACKCGLVPVLAENYKSQSSDPDPNCVDR
PVEGYLAVAVVRRSDTSLTWNSVKGKKSCHTAVDRTAGWNIPMGLLFNQTGSCKFDEYFSQSCAPGSDPRSNLCA
LCIGDEQGENKCV PNSNERYYGITGAFRCLAENAGDVA FVKDVTVLQNTDGNNNEAWAKDLKLADFALLCLDGKR
KPVTEARSCHLAMAPNHAVVSRMDKVERLKQVLLHQAKFGRNGSDCPDKFCLFQSETKNLLFNDNTECLARLHG
KTTYEKYLG PQYVAGITNLKKCSTSPLEACEFLRK

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FIGURE 178A

GCCCCGAGTGCAATCGCGGGAAGCCAGGGTTTCCAGCTAGGACACAGCAGGTCGTGATCCGGGTGGGACACTGC
CTGGCAGAGGCTGCGAGCATGGGGCCCTGGGGCTGGAAATTGCGCTGGACCGTCGCCTTGCTCCTCGCCGCGGCG
GGGACTGCAGTGGGCGACAGATGTGAAAGAAACGAGTTCCAGTGCCAAGACGGGAAATGCATCTCCTACAAGTGG
GTCTGCGATGGCAGCGCTGAGTGCCAGGATGGCTCTGATGAGTCCCAGGAGACGTGCTTGTCTGTACCTGCAAA
TCCGGGGACTTCAGCTGTGGGGGCCGTGTCAACCGCTGCATTCCCTCAGTTCTGGAGGTGCGATGGCCAAGTGGAC
TGCGACAACGGCTCAGACGAGCAAGGCTGTCCCCCAAGACGTGCTCCCAGGACGAGTTTCGCTGCCACGATGGG
AAGTGCATCTCTCGGCAGTTCGTCTGTGACTCAGACCGGGACTGCTTGGACGGCTCAGACGAGGCCTCCTGCCCCG
GTGCTCACCTGTGGTCCCGCCAGCTTCCAGTGCAACAGCTCCACCTGCATCCCCAGCTGTGGGCCTGCGACAAC
GACCCCGACTGCGAAGATGGCTCGGATGAGTGGCCGACGCTGTAGGGGTCTTTACGTGTTCCAAGGGGACAGT
AGCCCCTGCTCGGCCTTCGAGTTCCTACTGCCTAAGTGGCGAGTGTCATCCACTCCAGCTGGCGCTGTGATGGTGGC
CCCGACTGCAAGGACAAATCTGACGAGGAAAACCTGCGCTGTGGCCACCTGTGCCCCTGACGAATTCCAGTGCTCT
GATGGAAACTGCATCCATGGCAGCCGGCAGTGTGACCGGGAATATGACTGCAAGGACATGAGCGATGAAGTTGGC
TGCGTTAATGTGACACTCTGCGAGGGACCCAACAAGTTCAAGTGTACAGCGGCGAATGCATCACCTTGGACAAA
GTCTGCAACATGGCTAGAGACTGCCGGGACTGGTCAGATGAACCCATCAAAGAGTGCGGGACCAACGAATGCTTG
GACAACAACGGCGGCTGTTCCACGTCTGCAATGACCTTAAGATCGGCTACGAGTGCCTGTGCCCCGACGGCTTC
CAGCTGGTGGCCAGCGAAGATGCGAAGATATCGATGAGTGTGAGGATCCCGACACCTGCAGCCAGCTCTGCGTG
AACCTGGAGGGTGGCTACAAGTGCCAGTGTGAGGAAGGCTTCCAGCTGGACCCCCACACGAAGGCCTGCAAGGCT
GTGGGCTCCATCGCTACCTCTTCTTACCAACCGGCACGAGGTCAGGAAGATGACGCTGGACCGGAGCGAGTAC
ACCAGCCTCATCCCCAACCTGAGGAACGTGGTGCCTCTGGACACGGAGGTGGCCAGCAATAGAATCTACTGGTCT
GACCTGTCCCAGAGAATGATCTGCAGCACCCAGCTTGACAGAGCCCACGGCGTCTCTTCTATGACACCGTCATC
AGCAGGGACATCCAGGCCCCCGACGGGCTGGCTGTGGACTGGATCCACAGCAACATCTACTGGACCGACTCTGTC
CTGGGCACTGTCTCTGTTGCGGATACCAAGGGCGTGAAGAGGAAAACGTTATTAGGGAGAACGGCTCCAAGCCA
AGGGCCATCGTGGTGGATCCTGTTTATGGCTTCATGTACTGGACTGACTGGGGAACCTCCGCCAAGATCAAGAAA
GGGGGCTGAATGGTGTGGACATCTACTCGCTGGTGAAGTGAACATTTCAGTGGCCCAATGGCATCACCTAGAT
CTCCTCAGTGGCCGCCTCTACTGGGTTGACTCCAACTTCACTCCATCTCAAGCATCGATGTCAATGGGGGCAAC
CGGAAGACCATCTTGAGGATGAAAAGAGGCTGGCCCCACCCCTTCTCCTTGGCCGTCTTTGAGGACAAAGTATTT
TGGACAGATATCATCAACGAAGCCATTTTTCAGTGCCAACCGCCTCACAGGTTCCGATGTCAACTTGTGGCTGAA
AACCTACTGTCCCCAGAGGATATGGTCCTCTTCCACAACCTCACCCAGCCAAGAGGAGTGAAGTGGTGTGAGAGG
ACCACCTGAGCAATGGCGGCTGCCAGTATCTGTGCTCCCTGCCCGCAGATCAACCCCCACTCGCCCAAGTTT
ACCTGCGCTGCCCCGACGGCATGCTGCTGGCCAGGGACATGAGGAGCTGCCTCACAGAGGCTGAGGCTGCAGTG
GCCACCCAGGAGACATCCACCGTCAGGCTAAAGGTCAGCTCCACAGCCGTAAGGACACAGCACACAACCAACCCGG
CCTGTTCCCGACACCTCCCGGCTGCCTGGGGCCACCCCTGGGCTCACACGGTGGAGATAGTGACAATGTCTCAC
CAAGCTCTGGGCGACGTTGCTGGCAGAGGAAATGAGAAGAAGCCAGTAGCGTGAGGGCTCTGTCCATTGTCTC
CCCATCGTGCTCCTCGTCTTCTTTCCTTGGGGTCTTCTTCTATGGAAGAACTGGCGGCTTAAGAACATCAAC
AGCATCAACTTTGACAACCCCGTCTATCAGAAGACCACAGAGGATGAGGTCCACATTTGCCACAACCAAGGACGGC
TACAGTACCCCTCGAGACAGATGGTCAGTCTGGAGGATGACGTGGCGTGAACATCTGCCTGGAGTCCCGCCCT
GCCCAGAACCCTTCTGAGACCTCGCCGGCCTTGTCTTATTCAAAGACAGAGAAGACCAAGCATTGCCTGCCAG
AGCTTTGTTTTATATATTTATTCATCTGGGAGGCAGAACAGGCTTCGGACAGTGCCCATGCAATGGCTTGGGTTG
GGATTTTGGTTTCTTCTTCTTCTGTGAAGGATAAGAGAAACAGGCCCGGGGGGACCAGGATGACACCTCCATTC
TCTCCAGGAAGTTTTGAGTTTCTCTCCACCGTGACACAATCCTCAAACATGGAAGATGAAAGGGCAGGGGATGTC
AGGGCCAGAGAAGCAAGTGGCTTTCAACACACAACAGCAGATGGCACCAACGGGACCCCTGGCCCTGCCTCATC
CACCAATCTCTAAGCCAAACCCCTAAACTCAGGAGTCAACGTGTTACCTCTTCTATGCAAGCCTTGCTAGACAG
CCAGGTTAGCCTTTGCCCTGTACCCCCGAATCATGACCCACCCAGTGTCTTTCGAGGTGGGTTTGTACCTTCT
TAAGCCAGGAAAGGATTTCATGGCGTCGGAAATGATCTGGCTGAATCCGTGGTGGCACCGAGACCAAACTCATTC
ACCAATGATGCCACTTCCAGAGGCAGAGCCTGAGTCACCGGTACCCCTTAATATTTATTAAGTGCCTGAGACA
CCCGGTTACCTTGGCCGTGAGGACACGTGGCCTGCACCCAGGTGTGGCTGTCAGGACACCAGCCTGGTGGCCATC
CTCCCGACCCCTACCCACTTCCATTCCCGTGGTCTCCTTGCACCTTCTCAGTTCAGAGTTGTACACTGTGTACAT
TTGGCATTGTGTTATTATTTTGCACGTGTTTTCTGTGCTGTGTGTTGGGATGGGATCCAGGCCAGGGAAAGCCC

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FIGURE 178B

GTGTCAATGAATGCCGGGGACAGAGAGGGGCAGGTTGACCGGGACTTCAAAGCCGTGATCGTGAATATCGAGAAC
TGCCATTGTCGTCCTTTATGTCCGCCCACCTAGTGCTTCCACTTCTATGCAAATGCCTCCAAGCCATTCACCTCCC
CAATCTTGTGCTTGATGGGTATGTGTTTAAACATGCACGGTGAGGCCGGGCGCAGTGGCCTCACGCCTGTAATC
CCAGCACTTTGGGAGGCCGAGGCGGGTGGATCATGAGGTCAGGAGATCGAGACCATCCTGGCTAACAAGGTGAAA
CCCCGTCTCTACTAAAAATACAAAAAATTAGCCGGGCGCGGTGGTGGGCACCTGTAGTCCCAGCTACTCGGGAGG
CTGAGGCAGGAGAATGGTGTGAACCCGGGAAGCGGAGCTTGCAGTGAGCCGAGATTGCGCCACTGCAGTCCGCAG
TCTGGCCTGGGCGACAGAGCGAGACTCCGTCTCAAAAAAACAACAAAAAACCATGCATGGTGCATCAGC
AGCCCATGGCCTCTGGCCAGGCATGGCGAGGCTGAGGTGGGAGGATGGTTTGAGCTCAGGCATTTGAGGCTGTGC
TGAGCTATGATTATGCCACTGCTTTCCAGCCTGGGCAACATAGTAAGACCCCATCTCTTAAAAAATGAATTTGGC
CAGACACAGGTGCCTCACGCCTGTAATCCCAGCACTTTGGGAGGCTGAGCTGGATCACTTGAGTTCAGGAGTTGG
AGACCAGGCCTGAGCAACAAAGCGAGATCCCATCTCTACAAAAACCAAAAAGTTAAAAATCAGCTGGGTATGGT
GCACGTGCCTGTGATCCCAGCTACTTGGGAGGCTGAGGCAGGAGGATCGCCTGAGCCCAGGAGGTGGAGGTTGCA
GTGAGCCATGATCGAGCCACTGCACTCCAGCCTGGGCAACAGATGAAGACCCTATTTAGAAATACAACATAAAA
AAAAATAAATAAATCCTCCAGTCTGGATCGTTTGACGGGACTTCAGGTTCTTTCTGAAATCGCCGTGTTACTGTT
GCACTGATGTCCGGAGAGACAGTGACAGCCTCCGTGAGACTCCCGCGTGAAGATGTCACAAGGGATTGGCAATTG
TCCCCAGGGACAAAACACTGTGTCCCCCCCAGTGCAGGGAACCGTGATAAGCCTTTCTGGTTTCGGAGCACGTAA
ATGCGTCCCTGTACAGATAGTGGGGATTTTTTGTATGTTTGCACCTTGTATATTGGTTGAACTGTTATCACTT
ATATATATATATACACACATATATATAAAATCTATTTATTTTGCAAACCCTGGTTGCTGTATTTGTTAGTGAC
TATTCTCGGGGCCCTGTGTAGGGGTTATTGCCTCTGAAATGCCTCTTCTTTATGTACAAAGATTATTTGCACGA
ACTGGACTGTGTGCAACGCTTTTTGGGAGAATGATGTCCCGTTGTATGTATGAGTGGCTTCTGGGAGATGGGTG
TCACTTTTTAAACCACTGTATAGAAGGTTTTTGTAGCCTGAATGTCTTACTGTGATCAATTAAATTTCTTAAATG

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FIGURE 179

MGPWGWKLRWTVALLLAAAGTAVGDR CERNEFQCQDGKCI SYKWVCDGSAECQDGSDESQETCLSVTCKSGDFSC
GGRVNR CIPQFWRC DGQVDCDNGSDEQGCPPKTC SQDEF RCHDGKCI SRQFVCDSDRDCLDGSDEASCPVLT CGP
ASFQCNSSTCIPQLWACDNDPDCEDGSDEWPQRCRGLYVFQGDSSPCSAFEFHCLSGECIHSSWRCDGGPDCKDK
SDEENCAVATCRPDEFQCS DGNCIHGSRQCDREYDCKDMSDEVGCVNVTLC EGP NKFKCHSGECITLDKVCNMAR
DCRDWSDEPIKECGTNECLDNNGGCSHVCNDLKIGYECLCPDGFQLVAQRRCEDIDECQDPDTCSQLCVNLEGGY
KCQCEEGFQLDPHTKACKAVGSIAYLFFTNRHEVRKMTLDRSEYTS LIPNLRNVVALDTEVASNRIYWSDSL SORM
ICSTQLDRAHGVSSYDTVISRDIQAPDGLAVDWIHSNIYWTDSVLGTVSVADTKGVKRKTLFRENGSKPRAIVD
PVHGFMYWTDWGTPAKIKKGG LINGVDIYSLVTENIQWPNGITLDLLSGRLYWVDSKLHSSI SIDVNGGNRKTILE
DEKRLAHPFSLAVFEDKVFWDI I NEAIFSANRLTGSDVNLLAENLLSPEDMVL FHNLTQPRGVNWCERTTLSNG
GCQYLCLPAPQINPHSPKFTCACPDGMLLARDMRSCLTEAEAAVATQETSTVRLKVSSTAVRTQH TTTTRPVPDTS
RLPGATPGLTTVEIVTMSHQALGDVAGRGNEKKPSSVRALSIVLP IVLLVFLCLGVFLLWKNWRLKNINSINFDN
PVYQKTTEDEVHICHNQDGYSYPSRQMV SLEDDVA

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FIGURE 180

AAGCGATGGCTGGGCCCCGCTGGATCTCCAAGGTCTCTCGGCTGCTGGGGGCATTCCACAACCCAAAACAGGTGA
CCAGAGGTTTTTACTGGTGGTGTTCAGACAGTAACTTTAATTCCAGGAGATGGTATTGGCCCAGAAATTTTCAGCTG
CAGTTATGAAGATTTTTGATGCTGCCAAAGCACCTATTTCAGTGGGAGGAGCGGAACGTCACCTGCCATTCAAGGAC
CTGGAGGAAAGTGGATGATCCCTTCAGAGGCTAAAGAGTCCATGGATAAGAACAAGATGGGCTTGAAAGGCCCTT
TGAAGACCCCAATAGCAGCCGGTCACCCATCTATGAATTTACTGCTGCGCAAAACATTTGACCTTTACGCGAATG
TCCGACCATGTGTCTCTATCGAAGGCTATAAAACCCCTTAACCCGATGTAAATATTGTGACCATTTCGAGAGAACA
CAGAAGGAGAATACAGTGGAAATTGAGCATGTGATTGTTGATGGAGTCGTGCAGAGTATCAAGCTCATCACCAGG
GGCGAGCAAGCGCATTGCTGAGTTTGCCCTTTGAGTATGCCCCGAACAACACCGGAGCAACGTCACGGCGGTGC
ACAAAGCCAACATCATGCGGATGTCAGATGGGCTTTTTTCTACAAAAATGCAGGGAAGTTGCAGAAAGCTGTAAAG
ATATTAAATTTAATGAGATGTACCTTGATACAGTATGTTTGAATATGGTACAAGATCCTTCCCAATTTGATGTTC
TTGTTATGCCAAATTTGTATGGAGACATCCTTAGTGACTTGTGTGCAGGATTGATCGGAGGTCTCGGTGTGACAC
CAAGTGGCAACATTGGAGCCAATGGGGTTGCAATTTTTGAGTCGGTTCATGGGACGGCTCCAGACATTGCAGGCA
AGGACATGGCGAATCCACAGCCCTCCTGCTCAGTGCCGTGATGATGCTGCGCCACATGGGACTTTTTTGACCATG
CTGCAAGAATTGAGGCTGCGTGTGTTTGCTACAATTAAGGACGGAAAGAGCTTGACAAAAGATTTGGGAGGCAATG
CAAAATGCTCAGACTTCACAGAGGAAATCTGTGCGCGAGTAAAAGATTTAGATTAAACACTTCTACAACCTGGCATT
TACATCAGTCACTCTAAATGGACACCACATGAACCTCTGTTTGAATACCTACGTATGTATGCATTGGTTTGCTT
GTTTCTTGACAGTACATTTTTAGATCTGGCCTTTTTCTTAACAAAATCTGTGCAAAAGATGCAGGTGGATGTCCCT
AGGTCTGTTTTCAAAGAACTTTTTCCAAGTGCTTGTTTTATTTATTAAGTGCTACCTGGTAAATGTTTTTTTG
TAACTCTGAGTGGACTGTATCATTGCTATTCTAAACCATTTTACACTTAAGTTAAAATAGTTTCTCTTCAGCT
GTAAATAACAGGATACAGAATTAACAAGAGAAAATGTCTAACTTTTTAAGAAAAACCTTATTTTCTTCGGTTTTT
GAAAAACATAATGGAAATAAAACAGGATATTGACATAATAGCACAAAATGACACTCTTCTAAAACATAATGGGCA
CAAGAGAATTTTCTGGGAAAGTTCACATCAAAAAGAGTGAATGTGGTATATTTCTAAATGATATGGAAAATAGA
GACAGATTTGTCCTTTACAGAAATTACTGAGTGTGAATAAAAACTTCAGATCCAAGAAATATATAATGAGAGATA
TAATTTTTGTTAATAAGACAAAGGTAATATATTGGATACAAAGACACAAATGTATTGTGTGTTCAATTATTTGT
TGTCTTGAGATTTAATATTCTTTCCAAGAGCTTTTTAATGAAGCAGAGAGCTAGTACTTCATTTTCACTGGATACA
TTTTTCAGCATCATGAGTTGTCACAGCCTCTGAGCCCCTGATCTGAAGCCAGAAGGGCTGAGTGTATTGTAAACTT
ATTCTTGATGTTGCTGTCTGGGAATGGACCACACTACAGCAGGTAGTTCTGGGGGCGATACTGCCGAAAGGCCC
GAACACATGTATTTGGCTGCAATTGAGGAACCTGGGATGCTATTAATTTGTATTTTCAGCAACTGCCCTTCTC
CTATCCCAAAGCACCAATTACTGCCCTCTGCCTCAGCAGTACCAGTATAAGATGACATTCCAAGACTGGAGGCA
ACTCAGCCTGAGTTAATTCACAAAATTATGCCATGCTGGGGCTTGAGCTTGAGCTTGGGCTTAGGCTTGGGCTCA
GCTTTTGACCCCTCAGGCATCTCCTTTTCTTCTGTCTTCTCTCCCTTCTCCTCTGCTGCAGCATGATTTTCTT
AATCTTCAGACACTCACTATTTTCATGAACAGTTACCCTCTGTCCCCACAACCAAAGACAACCTCATGGCCTCCTT
TGGCCCTTGTGTAACATTGCAAACCTGTGGCTTTGCAAAATGTACCCAGGTCACAAGGGGATTTTTTTTTTTTA
GCAATGATATCCCTGTCTGGGTCATTTTTAAGCTTGTAACCGCCCCCAGACTTATAATCTTAAATGTATTTT
CCTTTGTTTAAGCTGCTGCTTCCCTCTGTTTCATTGGATTGTGCCAGTTATCAGTGGCTCTTGGGTTCAAAGTAAT
AAA

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FIGURE 181

MAGPAWISKVSRLLGAFHNPKQVTRGFTGGVQTVTLIPGDGIGPEISAAVMKIFDAAKAPIQWEERNVTAIQGPG
GKWMIPSEAKESMDKNKMGLKGPLKTPIAAGHPSMNLLLRKTFDLYANVRPCVSIEGYKTPYTDVNIVTIRENTE
GEYSGIEHVIVDGVVQSIKLITEGASKRIAEFAFEYARNNHRSNVTAVHKANIMRMSDGLFLQKCREVAESCKDI
KFNEMYLDTVCLNMVQDPSQFDVLVMPNLYGDILSDLCAGLIGGLGVTPSGNIGANGVAIFESVHGTAAPDIAGKD
MANPTALLLSAVMMLRHMGLFDHAARIEAACFATIKDGKSLTKDLGGNAKCSDFTEEICRRVKDLD

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FIGURE 182A

CAAGTGCCGTCGCCGCGCCCTTCCCCCTCCCGCCTCCCGGCCCCCTCCCGGAACCGGCGGTGAGCTACGGT
CGCGGACGAGTGGAACCGAGACTGCCCCGCGGAGCCGCCGGTATGAGCGCCCTCGCCACCCCGTGTCCAGGCC
CGGCCTTTCTGACAAGAGCTAGACTTCGGGCTCCTTGAGGATATTCAGTTTTGTATGTTTGAATATCCTCTCACC
ATGTTTACGATAAAGTACCATTCTTAATGATTATCCTCAACAAGACAGGTGTGAGAGGGTTGCTGTTGCATTGCA
ATC**ATGG**TGCAAAAATACCAGTCCCCAGTGAGAGTGTACAAATACCCCTTTGAATTAATTATGGCTGCCTATGAA
AGGAGGTTCCCTACATGTCCTTTGATTCCGATGTTTCGTGGGCAGTGACACTGTGAGTGAATTCAGAGCGAAGAT
GGGGCTATTATGTCATTGAAAGGCGCTGCAAGCTGGATGTAGATGCACCCAGACTGCTGAAGAAGATTGCAGGA
GTTGATTATGTTTATTTTGTCCAGAAAACTCACTGAATTCTCGGGAACGTACTTTGCACATTGAGGCTTATAAT
GAAACGTTTTTCCAATCGGGTCATCATTAAATGAGCATTGCTGCTACACCGTTCACCCGTGAAAATGAAGATTGGACC
TGTTTTGAACAGTCTGCAAGTTTAGATATTAAATCTTTCTTTGGTTTTGAAAGTACAGTGGAATAATTGCAATG
AAACAATATACCAGCAACATTAAGGAAAGGAAATCATCGAATACTACCTTCGCCAATTAGAAGAAGAAGGC
ATAACCTTTGTGCCCCGTGGAGTCCGCTTCCATCACGCCCTCTTCAGAGACATCTTCATCATCTCCAAGAAA
CAAGCAGCGTCCATGGCCGTGTCATCCCAGAAGCTGCCCTCAAGGAGGGGCTGAGTGGTGATGCCCTCAGCAGC
CCCAGTGCACCTGAGCCCGTGGTGGGCACCCCTGACGACAAACTAGATGCCGACCACATCAAGAGATACCTGGGC
GATTTGACTCCGCTGCAGGAGAGCTGCCTCATTAGACTTCGCCAGTGGCTCCAGGAGACCCACAAGGGCAAATT
CCAAAAGATGAGCATATTCTTCGTTTCCCTCCGTGCACGGGATTTTAATATTGACAAAGCCAGAGAGATCATGTGT
CAGTCTTTGACGTGGAGAAAGCAGCATCAGGTAGACTACATTCTTGAAACCTGGACCCCTCTCAGGTCTTCAG
GATTACTACGCGGGAGGCTGGCATCATCACGACAAAGATGGGCGGCCCTCTACGTGCTCAGGCTGGGGCAGATG
GACACCAAAGGCTTGGTGAGAGCGCTCGGGGAGGAAGCCCTGCTGAGATACGTTCTCTCCGTAAATGAAGAACGG
CTAAGGCGATGCGAAGAGAATAACAAAGTCTTTGGTGGCCCTATCAGCTCATGGACCTGCCTGGTGGACTTGAA
GGGCTGAACATGCGCCACTTGTGGAGACCTGGTGTGAAAGCGCTGCTGCGGATCATCGAGGTGGTGGAGGCCAAC
TACCCTGAGACACTGGGCCGCTTCTCATCTGCGGGCGCCAGGGTATTTCTGTGCTCTGGACGCTGGTTAGT
CCGTTTATTGATGACAACACCAGAAGGAAGTTCTCATTTATGCAGGAAATGACTACCAGGGTCTGGAGGCCTG
CTGGATTACATCGACAAAGAGATTATTCCAGATTTCTGAGTGGGGAGTGCATGTGCGAAGTGCCAGAGGGTGA
CTGGTCCCCAAATCTCTGTACCGACTGCAGAGGAGCTGGAGAACGAAGACCTGAAGCTCTGGACTGAGACCATC
TACCAGTCTGCAAGCGTCTTCAAAGGAGCCCCACATGAGATTCTCATTAGATTGTGGATGCCTCGTCAGTCATC
ACTTGGGATTTTCGACGTGTGCAAAGGGGACATTGTGTTTAAACATCTATCACTCCAAGAGGTGCCACAACCACC
AAAAAGGACTCCCTGGGAGCCACAGCATCACCTCTCCGGGTGGGAACAATGTGCAGCTCATAGACAAAGTCTGG
CAGCTGGGCGCGACTACAGCATGGTGGAGTCGCTCTGATCTGCAAAGAAGGAGAAAGCGTGCAGGGTTCCCAT
GTGACCAGGTGGCCGGGCTTCTACATCCTGCAGTGGAAATTCCACAGCATGCCTGCGTGCGCCGCCAGCAGCCTT
CCCCGGGTGGACGACGTGCTTGCCTCCCTGCAGGTCTCTTCGCACAAGTGTAAGTGATGTACTACACCGAGGTG
ATCGGCTCGGAGGATTTAGAGGTTCCATGACGAGCCTGGAGTCCAGCCACAGCGGCTTCTCCAGCTGAGTGCC
GCCACCACCTCTCCAGCCAGTCCCACTCCAGCTCCATGATCTCCAGG**TAG**TGCCGCGCTGCCTGCACCTAGTGT
GCAGAGGGGACGGCCGCCCTCTCGGACAGCAGCTGCACCCGCCACCCAGCGGCGACATTGTACAGACTCCTC
TCACCTCTAGATAGCAAAAGCTCTCAGATGGTAAACGTAGTTCGTTTGATCCCAAACTACCTTGGCAGGTAGTT
TTAACTCTGATCCTAACTTAACTCAATAGCCATAGATTTTGTATACGTTGTGCACAAAATCCAACCAGAGCGCAA
GGGCTCTCTTGAAAGAAAAGTAGTTTCTGTACCAATTAAAGGATTGACGTGGTCTCAGATATTGATGCAAAAAAT
TTTTCCAACGAACCTCCGATTGTCCATTAGTGAATGAATTCCTGTGACATCCTCCAGAGATGGCCCCCTCTCACC
TGGGACGGAAGCTGCCAGCTCGCTTCCCCAAGCTGCCTCATGGCCCGCACGCCGCTCACGGCCCCCATGCTTC
CCGCCAGTCAAGATGGTCTGTGGACTTAGGGCCAGCCCTTGAGGTCTTATCTCTGAGGATTAGAGGTTGCCT
GCGGAGTACCTTGTCCAGGGCCAGACACACCCACACCCACTGTCTGCAGTGGGGCCGGGGGCTCAGGAGGG
GCTCTCAGGGACTCCTGGTGACTCCAGGAAAATGCTGCCATCGTTAAACATTACTTTCTCTTTCTCTTTTCAA
ATCTTTTTGATACTTTTTAGAGCAGGATTTTTCTGTATGTGAACCTGGGTGGGGGGGTTCTTCCCGTTTCTTCC
GTGCGTCGCCCCCTCTACCTGCAGTCAGTCCCAGCCAGTGTAGGCCATCTCCTCTGTGCCCTCTGGAGGCTCA
TTGTCTCAGAGCCCAGACAGTTCAGCCACTAGGAGGCCGTCTTGAACCAAGCAAGTCGCATTGGCCACTTGACA
CTGTCCATGGGGTTTTATTAGTAGCTAAGCAGCAGCTCTCGCATCCACTTCAGGGTGGCGTGTGGCATGTAGGAG
TCCTGCTTCTTTGTACATGGGAATTGTGGACTCATGCGTGTGTGTGTGTGCATGTGCTGTGTGTGTGCATGTGTG
CATGACGGTGGGGGTGCTGGGGGGACGGGGTGAGTGGAACCTTAGTTTGAGTAATGAAGGAATCTTCACAGAAGC

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FIGURE 182B

AAATCAGAATATGGGATTTGTTTGCCTTTTACATTTTGTTTAATTCTGATTTTAAAGCCTGCTCTATCTGGTAC
AGGCCCTTATTTTTTTCAGCTTTTATGGGAAAAGCAGGTTATTTGAGAATCTGTCCAGAAGTTGCATAGGGGATG
GCCTCCACGATAAGGACATGCAACACGTGTTTCTGTGTGCAGCAGAGGCCGTGTTTTTCATGCCAAACCCACGC
GGCTGTCAACTGTGTGCGTGGTAGGCATGGAGATCCTGGTTGTGCCGTCTCAGCTCCGCTCTGAAGGCACTGTGT
GGGTGCTGCGTGAAGTGGAGAGCTGTGTGGAGGCCATGTGTGCCCCGTGCAGGGATCAGGAGGGCGGGGAGGGAC
CGAGCAGCCCTCTTGCCCGGTGCGGTCAGCCCTAGTGGCTGCCTGCACACTGTAGACGTCCCAGGGCCTGTGCTG
TGATCACCTGCCTTTGGACCACATTTGTGTTTGCTCTTAGAGATCGAGCTCCTCAGTGGTACCTGAAGCCTTTGC
TTCCGGAAAGCGCGGTAGGGTTCGTAGGTAGGGCTAGTAGGTAGGGTTAGTAGGTAGGGCTAGTAGGTAGGGCTA
GTAGGTAGGGTTAGTAGGTAGGGTTCGTAGGTAGGGCTGGTAGGTAGGGTTAGTAGGTAGGGCTAGTAGGTAGGG
TTCGTAGGTAGGGCTAGTAGGTAGGGTTAGTAGGTAGGGCTAGTAGGTAGGGCTAGTAGGTAGGGTTAGTAGGT
GGGTTTCGTAGGTAGGGCTGGTAGGTAGGGTTAGTAGGTAGGGCTAGTAGGTAGGGTTTCGTAGGTAGGGCTAGT
GTAGGGTTAGTAGGTAGGGCTAGTAGGTAGGGCTAGTAGGTAGGGTTAGTAGGTAGGGTTTCGTAGGTAGGGCTG
TAGGTAGGGTTAGTAGGTAGGGCTAGTAGGTAGGGCTAGTAGGTAGGGCTAGTAGGTAGGGTTAGTAGGTAGGG
TAGGTAGGGCTAGTAGGTAGGGTTAGTAGGTAGGGTTTCGTAGGTAGGGCTGGTAGGTAGGGTTAGTAGGTAG
GGCTAGTAGGTAGGGCTAGTAGGTAGGGCTAGTAGGTAGGGCTAGTAGGTAGGGCTAGTAGGTAGGGCTAGTAG
TAGGGCTAGTAGGTAGGGTTTCGTAGGTAGGGTTTCGTAGGTAGGGTTTCGTAGGTAGGGTTAGTAGCGCGTCTGTGC
TGCTTCCACCTGGTGCTTCCGTGTTCCCAAATCACAAGGGCCTGAAGGTGGTCCCTGCTTTCTCTTTCTCTTTCTC
TGTGTCTCAGATGGCGATTTTGCTGACAGCTGCCAAGAAAATGCTTCACTCAACAGTCCTCATGTGCCAGAGAT
GTTTATAGAACTGTTTGAATTGCAGCCATCCCCTGCCCCCTCCCAGGCTGAAGATCTGTTCTTTTTAAGTTGATT
CGGGAGTGGCATTCTTTTATACCCAAAGACTGTAGTGCATCTTGAAGAGCTCAAAGCACATGACCGCACAAATGC
TTACAGGGTTTCTCCCGAGTAATCCAATCTCACTCCCCTTGTAAGGGAATTCTGGGGCAGCTATGGTTTGAGTA
TGCAGTTTGCATCGTGTCTTCTACCTTTAGTACCTTGCCACTCTTTTAAAACGCTGCTGTCAATTTCCATTTCTTA
GTACTAATGATTCTTTGATTCTCCCTCTATTATGTCTTAATCACTTTCTTCTTAAATTTGTTATTTGCATATC
AAATTCTGTAAATGTTTTGTAAACATATTACCTCACTTGGTAATACAATACTGATAGTCTTTAAAGATTTTTTT
ATTGTTATCAATAATAAATGTGAACATTTTAAAG

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FIGURE 183

MVQKYQSPVRVYKYPFELIMAAYERRFPTCPLIPMFVGS DTVSEFKSEDGAIHVIERRCKLDVDAPRLKKIAGV
DYVYFVQKNSLNSRERTLHIEAYNETFSNRVIINEHCCYTVHPENEDWTCFEQSASLDIKSFFGFESTVEKIAMK
QYTSNIKKGKEIEYYLRQLEEEGITFVPRWSPPSITPSSETSSSSSKQAASMAVVIPEAALKEGLSGDALSSP
SAPEPVVGTPDDKLDADHIKRYLGDLTPLQESCLIRLRQWLQETHKGKIPKDEHILRFLRARDFNIDKAREIMCQ
SLTWRKQH QVDYILETWTPPQVLQDYYAGGWHHDKDGRPLYVLR LGQMDTKGLVRALGEEALLRYVLSVNEERL
RRCEENTKVFGRPISWTCCLVDLEGLNMRHLWRPGVKALLRIIEVVEANYPETLGRLLILRAPRVFPVLWTLVSP
FIDNTRRKFLIYAGNDYQGPGLLDYIDKEIIPDFLSGECMCEVPEGGLVPKSLYRTAEELNEDLKLWTETIY
QSASVFKGAPHEILIQIVDASSVITWDFDVCKGDIVFNIYHSKRSPQPPKDSLGAHSITSPGGNNVQLIDKVWQ
LGRDYSMVESPLICKEGESVQGS HVTRWPGFYILQWKFHSM PACAASSLPRVDDVLASLQVSSHCKKVMYYTEVI
GSEDFRGSMTSLESSHSGFSQLSAATTSSSQSHSSSMISR

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FIGURE 184

AATTCGCGGAATCATCGGAATCCTTCACCATGGCATCCAGCCCGGCCAGCGTCGGCGAGGCAATGATCCTCTC
ACCTCCAGCCCTGGCCGAAGCTCCCGGCGTACTGATGCCCTCACCTCCAGCCCTGGCCGTGACCTTCACCATT
GAGGATGAGTCCGAGGGGCTCCTAGGCACAGAGGGGCCCTGGAGGAAGAAGAGGATGGAGAGGAGCTCATTGGA
GATGGCATGGAAAGGGACTACCGCGCCATCCCAGAGCTGGACGCCTATGAGGCCGAGGGACTGGCTCTGGATGAT
GAGGACGTAGAGGAGCTGACGGCCAGTCGAAGGGAGGCAGCAGACGGGCCATGCGGCACGGTGACCGGGAGCTGG
CCGGGGCTGGGCGCATGCGCCGTGGGCTCCTGTATGACAGCGATGAGGAGGACGAGGAGCGCCCTGCCCCGAAGC
GCCGCCAGTGGAGCCGGCACGGAGGACGGCGAGGAGGACGAGCAGATGATTGAGAGCATCGAGAACCTGGAGGAT
CTCAAAGGCCACTCTGTGCGCGAGTGGGTGAGCATGGCGGGCCCCCGGCTGGAGATCCACCACCGCTTCAAGAAC
TTCCTGCGCACTCACGTGACAGCCACGGCCACAACGTCTTCAAGGAGCGCATCAGCGACATGTGCAAAGAGAAC
CGTGAGAGCCTGGTGGTGAACATGAGGACTTGGCAGCCAGGGAGCACGTGCTGGCCTACTTCTGCGCTGAGGCA
CCGGCGGAGCTGCTGCAGATCTTTGATGAGGCTGCCCTGGAGGTGGTACTGGCCATGTACCCCAAGTACGACCGC
ATCACCAACCACATCCATGTCCGCATCTCCACCTGCCTCTGGTGGAGGAGCTGCGCTCGCTGAGGCAGCTGCAT
CTGAACCAGCTGATCCGCACCAAGTGGGGTGGTGACCAGCTGCACTGGCGTCTGCCCCAGCTCAGCATGGTCAAG
TACAACTGCAACAAGTGAATTTCTGCTCTGGGTCCTTTCTGCCAGTCCCAGAACCAGGAGGTGAAACCAGGCTCC
TGTCCTGAGTGCCAGTCGGCCGGCCCCCTTTGAGGTCAACATGGAGGAGACCATCTATCAGAACTACCAGCGTATC
CGAATCCAGGAGAGTCCAGGCAAAAGTGGCGGCTCGGCGGCTGCCCCGCTCCAAGGACGCCATTCTCCTCGCAGAT
CTGGTGGACAGCTGCAACGCAGGAGACGAGATAGAGCTGACTGGCATCTATCACAACAATATGATGGCTCCCTC
AACTACTGCCAATGGCTTCCCTGTCTTTGCCACTGTATCCTAGCCAACCACGTGGCCAAGAAGGACAACAAGGTT
GCTGTAGGGGAACTGACCGATGAAGATGTGAAGATGATCACTAGCCTCTCCAAGGATCAGCAGATCGGAGAGAAG
ATCTTTGCCAGCATTGCTCCTTCCATCTATGGTCATGAAGACATCAAGAGAGGCCCTGCTCTGGCCCTGTTTCGGA
GGGGAGCCCCAAAACCCAGGTGGCAAGCACAAGGTACGTGGTGATATCAACGTGCTCTTGTGCGGAGACCCTGGC
ACAGCGAAGTCGCAGTTTCTCAAGTATATTGAGAAAGTGTCCAGCCGAGCCATCTTCACCCTGGCCAGGGGGCG
TCGGCTGTGGCCGTACGGCGTATGTCCAGCGGCACCCTGTACGAGGGAGTGACCTTGGAGGCTGGGGCCCTG
GTTCTGGCTGACCGAGGAGTGTGTCTCATTGATGAATTTGACAAGATGAATGACCAGGACAGAACCAGCATCCAT
GAGGCCATGGAGCAACAGAGCATCTCCATCTCGAAGGCTGGCATCGTCACCTCCCTGCAGGCTCGCTGCACGGTC
ATTGCTGCCGCCAACCCCATAGGAGGGCGCTACGACCCCTCGCTGACTTTCTCTGAGAACGTGGACCTCACAGAG
CCCATCATCTCACGCTTTGACATCCTGTGTGTGGTGAGGGACACCGTGGACCCAGTCCAGGACGAGATGCTGGCC
CGCTTCGTGGTGGGCAGCCACGTGACACACCACCCAGCAACAAGGAGGAGGAGGGGCTGGCCAATGGCAGCGCT
GCTGAGCCCGCCATGCCAACACGTATGGCGTGGAGCCCCGCCCCAGGAGGTCTGAAGAAGTACATCATCTAC
GCCAAGGAGAGGGTCCACCCGAAGCTCAACCAGATGGACCAGGACAAGGTGGCCAAGATGTACAGTGACCTGAGG
AAAGAATCTATGGCGACAGGCAGCATCCCCATTACGGTGCGGCACATCGAGTCCATGAGTCATGGCGGAGGCCCA
CGCGCGCATCCATCTGCGGGACTATGTGATCGAAGACGACGTCAACATGGCCATCCGCGTGATGCTGGAGAGCTT
CATAGACACACAGAAGTTCAGCGTCATCGCAGCATGCGCAAGACTTTTGCCGCTACCTTTCACTCCGGCGTGAC
AACAATGAGCTGTTGCTCTTCACTGAAGCAGTTAGTGGCAGAGCAGGTGACATATCAGCGCAACCGCTTTGGG
GCCAGCAGGACACTATTGAGGTCCCTGAGAAGGACTTGGTGGATAAGGCTCGTCAGATCAACATCCACAACCTC
TCTGCATTTTATGACAGTGAGCTCTTCAGGATGAACAAGTTCAGCCACGACCTGAAAAGGAAAATGATCCTGCAG
CAGTTCTGAGGCCCTATGCCATCCATAAGGATTCTTGGGATTCTGGTTTGGGGTGGTCAGTGCCCTCTGTGCTT
TATGGACACAAAACCAGAGCACTTGTGAACTCGGGGTACTAGGGTCAGGGCTTATAGCAGGATGTCTGGCTGCA
CCTGGCATGACTGTTTGTCTTCTCCAAGCCTGCTTTGTGCTTCTCACCTTTGGGTGGGATGCCTTGCCAGTGTGTC
TTACTTGGTTGCTGAACATCTTGCCACCTCCGAGTGCTTTGTCTCCACTCAGTACCTTGGATCAGAGCTGCTGAG
TTCAGGATGCCTGCGTGTGGTTTAGGTGTTAGCCTTCTTACATGGATGTCAGGAGAGCTGCTGCCCTCTTGGCGT
GAGTTGCGTATTACAGGCTGCTTTTGCTCGCTTTGGCCAGAGAGCTGGTTGAAGATGTTTGTAAATCGTTTTTCAGTC
TCCTGCAGGTTTCTGTGCCCCGTGTGGTGGAAGAGGCACGACAGTGCCAGCGCAGCGTTCTGGGCTCCTCAGTCGC
AGGGGTGGGATGTGAGTCATGCGGATTATCCACTCGCCACAGTTATCAGCTGCCATTGCTCCCTGTCTGTTTCCC
CACTCTCTTATTTGTGCATTGCGTTTGGTTTCTGTAGTTTTAATTTTTAATAAAGTTGAATAAAATATAAAAAA
AAAA

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FIGURE 185

MASSPAQRRRGNDPLTSSPGRSSRRTDALTSSPGRDLPPFEDESEGLLGTEGPLEEEEDGEELIGDGMERDYRAI
PELDAYEAEGALDDEDVEELTASRREAADGPCGTVTGSWPGLGACAVGSCMTAMRRTRSALPASAASGAGTEDG
EEDEQMIESIENLEDLKGHSVREWVSMAGPRLEIHHRFKNFLRTHVDSHGHNVFKERISDMCKENRESLVVNYED
LAAREHVLAYFLPEAPAEELLQIFDEAALEVVLAMYPKYDRITNHIHVRISHLPLVEELRSLRQLHLNQLIRTSGV
VTSGTGVLPLQLSMVKYCNKCNFVLGPFQSQNQEVKPGSCPECQSAGPFVEVNMEETIYQNYQRIRIQESPGKVA
ARRLPRSKDAILLADLVDSNAGDEIELTGIYHNNYDGSNTANGFPVFATVILANHVAKKDNKVAVGELTDEDV
KMITSLSKDQQIGEKIFASIAPSIYGHEDIKRGPALALFGGEPKNPGGKHKVRGDINVLLCGDPGTAKSQFLKYI
EKVSSRAIFTTQGASAVAVTAYVQRHPVSREWLEAGALVLADRGVCLIDEFDKMNDQDRTSIHEAMEQQSISI
SKAGIVTSLQARCTVIAAANPIGGRYDPSLTFSENVDLTEPIISRFDILCVVRDTPVQDEMLARFVVGSHVRH
HPSNKEEEGLANGSAAEPAMPNTYGVEPLPQEVLLKKYIIYAKERVHPKLNQMDQDKVAKMYSDLRKESMATGSIP
ITVRHIESMSHGGGPRAHPSAGLCDRRRRQHGHPRDAGELHRHTEVQRHRSMRKTfARYLSFRDNNELLLFILK
QLVAEQVTYQRNRFGAQQDTIEVPEKDLVDKARQINIHNLsafYDSELFrmnkFshDLKRKMILQQF

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FIGURE 186A

TGAATTCGTGAGAGACTTGAGGGAGGCGCTGCGACTGACAAGCGGCTCTGCCCGGGACCTTCTCGCTTTTCATCTA
GCGCTGCACTCAATGGAGGGGCGGGACCGCAGTGCTTAATGCTGTCTTAAGTAGTGTAGGAAAACGGCTCAACC
CACCGCTGCCGAAATGAAGTATAAGAATCTTATGGCAAGGGCCTTATATGACAATGTCCCAGAGTGTGCCGAGGA
ACTGGCCTTTCGCAAGGGAGACATCCTGACCGTCATAGAGCAGAACACAGGGGGACTGGAAGGATGGTGGCTGTG
CTCGTTACACGGTCGGCAAGGCATTGTCCCAGGCAACCGGGTGAAGCTTCTGATTGGTCCCATGCAGGAGACTGC
CTCCAGTCACGAGCAGCCTGCCTCTGGACTGATGCAGCAGACCTTTGGCCAACAGAAGCTCTATCAAGTGCCAAA
CCCACAGGCTGCTCCCCGAGACACCATCTACCAAGTGCCACCTTCCTACCAAATCAGGGAATTTACCAAGTCCC
CACTGGCCACGGCACCCAAGAACAAGAGGTATATCAGGTGCCACCATCAGTGCAGAGAAGCATTGGGGGAACAG
TGGGCCCCACGTGGGTAAAAAGGTGATAACCCCCGTGAGGACAGGCCATGGCTACGTATACGAGTACCCATCCAG
ATACCAAAAGGATGTCTATGATATCCCTCCTTCTCATACCACTCAAGGGGTATACGACATCCCTCCCTCATCAGC
AAAAGGCCCTGTGTTTTTCAGTTCCAGTGGGAGAGATAAAACCTCAAGGGGTGTATGACATCCCGCTACAAAAGG
GGTATATGCCATTCCGCCCTCTGCTTGCCGGGATGAAGCAGGGCTTAGGGAAAAAGACTATGACTTCCCCCTCC
CATGAGACAAGCTGGAAGGCCGGACCTCAGACCGGAGGGGGTTTATGACATTCCCTCCAACCTGCACCAAGCCAGC
AGGGAAGGACCTTCATGTAAAATACAAGTGTGACATTCCAGGAGCTGCAGAACCAGGTGGCTCGAAGGCACAGAG
CCTGTCCCCGAATCACCCACCCCGCAACTCGGACAGTCAGTGGGCTCTCAGAACGACGCATATGATGTCCCCCG
AGGCGTTTCAAGTTTCTTGAGCCACCAGCAGAAACCAGTGAGAAAGCAAACCCCCAGGAAAGGGATGGTGTATGA
TGTCCCTCTGCATAACCCGCCAGATGCTAAAGGCTCTCGGGACTTGGTGGATGGGATCAACCGATTGTCTTTCTC
CAGTACAGGCAGCACCCGGAGTAACATGTCCACGTCTTCCACCTCCTCCAAGGAGTCTCACTGTGAGCCTCCCC
AGCTCAGGACAAAAGGCTCTTCTGGATCCAGACACAGCTATTGAGAGACTTCAGCGGCTCCAGCAGGCCCTTGA
GATGGGTGTCTCCAGCCTAATGGCACTGGTCACTACCGACTGGCGGTGTTACGGATATATGGAAGACACATCAA
TGAAATACGCACAGCAGTGGACAAGGTGGAGCTGTTTCTGAAGGAGTACCTCCACTTTGTCAAGGGAGCTGTTGC
AAATGCTGCCTGCCTCCCGGAACCTATCTCCACAACAAGATGAAGCGGGAGCTGCAACGAGTGAAGACTCCCA
CCAGATCCTGAGTCAAACCAGCCATGACTTAAATGAGTGCAGCTGGTCCCTGAATATCTTGGCCATCAACAAGCC
CCAGAACAAGTGTGACGATCTGGACCGGTTTTGTGATGGTGGCAAAGACGGTGCCCGATGACGCCAAGCAGCTCAC
CACAACCATCAACACCAACGCAGAGGCCCTCTTCAGACCCGGCCCTGGCAGCTTGATCTGAAGAATGGGCCGGA
GAGCATCATGAACCTCAACGGAGTACCCACACGGTGGCTCCCAGGGACAGCTGCTGCATCCTGGTGACCACAAGGC
CCAGGCCCCACAACAAGGCAGTGCCTCCAGGCTGAGCAAGGAGCAGGCCCTGACTGTAGCAGCAGTGATGGTTC
TGAGAGGAGCTGGATGGATGACTACGATTACGTCCACCTACAGGGTAAGGAGGAGTTTTGAGAGGCAACAGAAAGA
GCTATTGGAAAAAGAGAATATCATGAACAGAACAAAGATGCAGCTGGAACATCATCAGCTGAGCCAGTTCCAGCT
GTTGGAACAAGAGATTACAAAGCCCGTGGAGAATGACATCTCGAAGTGGAAGCCCTCTCAGAGCCTACCCACCAC
AAACAGTGGCGTGAGTGCTCAGGATCGGCAGTTGCTGTGCTTCTACTATGACCAATGTGAGACCCATTTTCAATTC
CCTTCTCAACGCCATTGACGCACTCTTCAGTTGTGTGAGCTCAGCCCAGCCCCGCGAATCTTCGTGGCAGACAG
CAAGTTTGTATCTCCTCAGTGCACACAACTGGTGTTCATTGGAGACACGCTGACACGGCAGGTGACTGCCCAGGA
CATTGCAACAAAGTCATGAACCTCAGCAACCAGCTCTGCGAGCAGCTCAAGACTATAGTCATGGCAACCAAGAT
GGCCGCCCTCCATTACCCAGCACACGGCCCTGCAGGAAATGGTGCACCAAGTGACAGACCTTTCTAGAAATGC
CCAGCTGTTCAAGCGCTCTTTGCTGGAGATGGCAACGTTCTGAGAAGAAAAAAGAGGAAGGGGACTGCGTTAA
CGGTTACTAAGGAAAACTGGAAATACTGTCTGGTTTTTTGTAAATGTTATCTATTTTTGTAGATAATTTTATATAA
AAATGAAATATTTTTAACATTTTATGGGTGAGACAACCTTTCAGAAATTCAGGGAGCTGGAGAGGGAATCTTTTTT
TCCCCCTGAGTGTTCTTATGTATACAGAAAGTATCTGAGACATAAACTGTACAGAAAACCTGTCCACGTCCTT
TTGTATGCCCATGTATTCAIGTTTTTGTGTTGTAGATGTTTGTCTGATGCATTTTCAAAAAAACCATGAAT
TACGAAGCACCTTAGTAAGCACCTTCTAATGCTGCATTTTTTTTTGTTGTTGTTAAAAACATCCAGCTGGTTATAA
TATTGTTCTCCACGTCCTTGTGATGATTCTGAGCCTGGCACTGGGAATCTGGGAAGCATAGTTTATTTGCAAGTG
TTCACCTTCCAAATCATGAGGCATAGCATGACTTATTCCTGTTTTGAAAACTCTTTTCAAACTGACCATCTTAA
ACACATGATGGCCAAGTGCCACAAAGCCCTCTTGCGGAGACATTTACGAATATATATGTGGATCCAAGTCTCGAT
AGTTAGGCGTTGGAGGGAAGAGAGACCAGAGAGTTTAGAGGCCAGGACCACAGTTAGGATTGGGTTGTTTCAATA
CTGAGAGACAGCTACAATAAAAGGAGAGCAATTGCCTCCCTGGGGCTGTTCAATCTTCTGCATTTGTGAGTGGTT
CAGTCATGAGGTTTTTCAAAAGATGTTTTTAGAGTTGTAAAAACCATATTTGCAGCAAAGATTTACAAAGGCGTA
TCAGACTATGATTGTTTACCAAAAATAGGGGAATGGTTTGATCCGCCAGTTGCAAGTAGAGGCCTTCTGACTCTT

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FIGURE 186B

AATATTCACTTTGGTGCTACTACCCCATACCTGAGGAACTGGCCAGGTCCTTGATCATGGAACATAGAGCTA
CCAGACATATCCTGCTCTCTAAGGGAATTTATTGCTATCTTGACCTTCTTTAAACTCAAAAAACATATGCAGA
CCTGACACTCAAGAGTGGCTAGCTACACAGAGTCCATCTAATTTTGGCAACTTCCCCCCCCGAATTC

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FIGURE 187

MKYKNLMARALYDNVPECAEELAFRKGDILTIVIEQNTGGLEGWWLCSLHGRQGIVPGNRVKLLIGPMQETASSHE
QPASGLMQQTFFGQQKLYQVPNPQAAPRDTIYQVPPSYQNQGIYQVPTGHGTQEVEYQVPPSVQRSIGGTSGPHV
GKKVITPVRTGHGYVYEYPSRYQKDVIDIPPSHTTQGVYDIPPSSAKGPVFSVPVGEIKPQGVYDIPPTKGVYAI
PPSACRDEAGLREKDYDFPPPMRQAGRPDLRPEGVYDIPPTCTKPAKDLHVKNCDIPGAAEPVARRHQSLSPN
HPPPQLGQSVGSQNDAYDVPRGVQFLEPPAETSEKANPQERDGVYDVPLHNPPDAKGSRDLDGINRLSFSSTGS
TRSNMSTSSTSSKESSLASPAQDKRLFLDPDTAIERLQRLQQALEMGVSSLMALVTTDWRCYGYMERHINEIRT
AVDKVELFLKEYLHFVKGAVANAACLPELILHNKMKRELQRVEDSHQILSQTSHDLNECSWSLNLAINKPQNK
DDLDRFVMVAKTVPDDAKQLTTTINTNAEALFRPGPSLHLKNGPESIMNSTEYPHGGSQGQLLHPGDHKAQAHN
KALPPGLSKEQAPDCSSSDGSESWMDDYDYVHLQGKEEFERQQKELLEKENIMKQNMQLEHHQLSQFOLLEQE
ITKPVENDISKWKPSQSLPTTNSGVSAQDRQLLCFYDQCETHFISLLNAIDALFSCVSSAQPPIRFVAHSKFVI
LSAHKLVFIGDTLTRQVTAQDIRNKVMNSSLQCEQLKTIVMATKMAALHYPSTTALQEMVHQVTDLSRNAQLFK
RSLLEMATF

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FIGURE 188

CGCAGGGACCGTGCTCCGCCGTCTCCGCCGCATCTTCCACCCTCGCCGCCGCCGAGCTCCCCGCGCTCGTGCCA
CCGCCGCCGCGTCCACCCTCAGCGCCACCGCC**ATG**CGGGAGATCGTGACCTGCAGGCCGCCAGTGCGGCAACC
AGATCGGGGCCAAGTTTTGGGAGGTTATCAGTGACGAACATGGCATCGACCCACAGGCACATACCATGGGGACA
GTGACCTGCAACTGGAGAGGATCAACGTGTACTACAACGAGGCCACAGGAGGAAATTATGTCCCCAGAGCGGTGC
TGGTGGACCTGGAACCCGGCACCATGGACTCTGTCCGTTCTGGCCCCCTTCGGTCAGATCTTTCGGCCGGACAAC
TCGTGTTTTGGCCAATCCGGAGCCGGCAACAACCTGGGCAAAGGGGCACTACACGGAGGGCGCAGAGCTGGTGGACG
CTGTCTTGACGTAGTCCGGAAGGAGGCCGAGAGCTGCGACTGCCTTCAGGGCTTCAGCTGACCCACTCGCTGG
GGGGTGGCACGGGGTCCGGAATGGGCACGCTGCTCATCAGTAAGATCCGCGAGGAGTTCAGACCGCATCATGA
ACACCTTCAGCGTGGTGCCCTCGCCCAAAGTGTCAGACACGGTGGTGGAGCCCTACAACGCCACGCTGTCTGTGC
ACCAGCTGGTGGAGAATACGGATGAGACCTACTGCATCGACAACGAGGCACTCTACGACATCTGTTTCCGCAACC
TCAAGCTGACCACCCCCACCTACGGGGACCTCAACCACCTGGTGTGCGCCACCATGAGCGGGGTACCACCTGCC
TGCCTTCCCGGGCCAGCTGAACGCCGACCTGCGCAAGCTGGCCGTCAACATGGTTCCTTTCCTCGCCTGCACT
TCTTCATGCCCCGCTTCGCACCCCTGACCAGCCGGGGCAGCCAGCAGTACCGGGCCCTGACGGTGGCCGAGCTCA
CCCAGCAGATGTTTCGATGCCAAGAACATGATGGCGGCGTGCGACCCGCGCCACGGCCGCTACCTGACCGTGGCCG
CCGTGTTCCGGGGCCGCATGTCCATGAAGGAGGTGGACGAGCAGATGCTGAGCGTGACAGCAAGAACAGCAGCT
ACTTCGTGGAGTGGATCCCCAACAACGTGAAGACGGCCGTGTGCGACATCCCGCCCCGCGGCCTGAAGATGGCCG
CGACCTTCATCGGCAACAGCACGGCCATCCAGGAGCTGTTCAAGCGCATCTCCGAGCAGTTCACGGCCATGTTCC
GGCGCAAGGCCTTCTTGCACTGGTACACGGGCGAGGGCATGGACGAGATGGAGTTACCGAGGCCGAGAGCAACA
TGAATGACCTGGTATCTGAGTACCAGCAGTACCAGGACGCCACGGCCGAGGAGGGCGAGTTCAGGAGGAGGCGG
AGGAGGAGGTGGCC**TAG**GCTGCTCCCATCGCTTCCACCTGTCCCCTCGAGGCTTCTGACCTTTGATCCGCTAGG
CCCCCATCTCTGAACCCCTAGAGCCCCGCTTTCCTCCAAGGCTGACTCCCCGCTGACCCTAACAATACCTTTGG
AGCTCGCTTTACCTCTGGCTACTTCACTCTCCGACCCTGGCTCCCCCTTGAGCCCTAATTTATCTTTAACCCCTT
GAGCTCTTCCAACCTTGACATTCCCAGGAGGAGCCCCGCTTCACCCCTTCTGACTCTGAAACCGCACCTTTAAC
TTTGACAGACCTTCCCTCACCCCTGACTTCTGCTTACCTTTGACCTCTGCCCCCATGAATCCCATTTTACCTCT
AGACCTATAAGTTCTGGTTTATGTTTGACCCCTCCCTCTGAGCTGCACTTCACCGCTGACCTTGCTCACCTTTA
ACCCCCACCTGAGCCCCAGCTCCTACCTCTGACCCCAACTTCTCTTTGATCTCTGAATCCCCTCTGACTCCAAC
TTCTCTTTCACCCCTCTATGAGTCCCATTTTACTTCTACACCTGCAAGTCCTGGTTTATATTGGACCCCTCCCTCC
GAGCTGCAGTTCACCTTTGACCTTGCTCACCTTTACCCCCACCCCCACAGCGTCAGCTCCTACCTCTGACC
CCAGCTTCTCTCTGATTCCACAGGCCCCATGCATCTCCCTGCCTCACTCCCCTCAGCCCTGCCGACCTTAGC
TTATCTGGGAGAGAAACAAGGCCTGGTGCTGTGAGGAAGAGAGGTCACCCCTACCCTCCCTCCCGCTTCCCTG
CTCACCCCTCAATAAATAAATTAATTGTTGTCATGAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 189

MREIVHLQAGQCGNQIGAKFWEVISDEHGIDPTGTYHGDSDLQLERINVYYNEATGGNYVPRAVLVDLEPGTMDS
VRSGPFGQIFRPDNFVFGQSGAGNNWAKGHYTEGAELVDAVL DVVRKEAESCDCLQGFQLTHSLGGGTGSGMGTL
LISKIREEFDRIMNTFSVVPSPKVSDTVVEPYNATLSVHQLVENTDETYCIDNEALYDICFRTLKLTTPTYGDL
NHLVSATMSGVTTCLRFPGLNADLRKLAVNMVFPRLHFFMPGFAPLTSRGSQQYRALTVPELTQQMFDAKNMM
AACDPRHGRYLTVA AVFRGRMSMKEVDEQMLSVQSKNSSYFVEWIPNNVKTAVCDIPPRGLKMAATFIGNSTAIQ
ELFKRISEQFTAMFRRKAFLHWYTGEGMDEMEFTEAESNMNDLVSEYQQYQDATAEEGEFEEEEEEVA

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FIGURE 190

GGCACGAGGGAGAACTAGTCTCGATTTTTTTTTTTTTTTTTTTCTTTGTTTTGTTTTTCTGTATAAAAAAGGAC
 CCCAAATATAAAGGTAGGGAAAGGGACAAGAGGGAACATACCCCTTAGTGTAGAGAAATGGGAAGGAGAAGGAGA
 AGCCTCAAAAGGAGAGGTGGGAGGGGAATGTCATTAAGGCAGCAAAGTAATCTCTGTAGAAAGATGGAGGAGGAC
 CCTCCATAGCCTCAGAGATAAAGGCAAAGATTGCCCTCTCAGTGTCCAGAAGGGAAATGGCAGCTTTTCTTCCTT
 CCATGGCAGCCACTCCATTGCTCACTCCGGATTACCTTCATCCTTATGTAGATAAGAGTGCTGCAGAGCTCGAAA
 GGCAGAGATTGCTTGTGTGGGTAAAAGTCAGCATTTCCAGCAGCAGCTGTGCTCCCGACTCCTCCATCTCAGG
 TACCACCGACTGCACTGGGCGGGGCCCTCTGGGGGGAAAGGCTCCACGGGGCAGGGATACATCTCGAGGCCAGTC
 ATCCTCTGGAGGCAGCCCAATCAGGTCAAAGATTTGCCCAACTGGTCGGCTTCAGAGTTTCCACAGAAGAGAGG
 CTTTCGACGAAACATCTCTGCAAAGATACAGCCAACACTCCACATGTCCACAGGTGTTGCATATGTGGACTGCAG
 AAGAACTTCGGGAGCTCGGTACCAGAGTGTAACAACCACGGGTGTAAGTGCCATCTGGTAGCTGTAGATTCTGGC
 CAGGCCAAAGTCAGCCAGCTTGACTGTTCCACCACTTGTCACCAGAAATGTTCTCTGGCTTCAGATCTCGGTGAAC
 GATGCAATTGGCATGAAGGAAATCTAGGCCTCTTAGAAACTGGCGCATCAGATCCTTGATCGTTTCGGCTGGCAA
 GCCTGGTGGGGGTGCCTTGTCCAGATATGTCCTTAGGTCTGGTCTACATGCTCAAACACCAGGGTTACCTTGAT
 CTCCCGGTCAGTTCGGGATGTGGCACAGACGTCCATCAGCCGGACAACATTGGGATGCTCAAAGCCTCCAGTCG
 CCTCAGTAAAGCCACCTCACGAAGTGTGCTGATGGGAAGGCCTCCTCCACCTCCTCCTCCATTGGGGACTCTCAC
 ACTCTTGAGGGCCACAAAGTGGCCACTGTGGGGATCACGGGCCTTGTAACACTGTCCCATAGGCACCGACACCAAT
 TTCAGCCACTGGCTCATATCGAGAGGTAGCCATTCTCAGATCAAGGGAGACCCTCACGCCAGCCGGGGTGCTGT
 GGGGGCGGCCCGTTATCGGGGCCCGGAGCCGGTTCTACGGCCCCATACACCCGAGCTCGGTCCGGAGCAG

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FIGURE 191

MSTGVAYVDCRRTSGARYQSVTTTGVSIAW

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FIGURE 192

AGCTGAGGTGTGAGCAGCTGCCGAAGTCAGTTCCTTGTGGAGCCGGAGCTGGGCGCGGATTGCGCGAGGCACCGA
GGCACTCAGAGGAGGTGAGAGAGCGGCGGCAGACAACAGGGGACCCCGGGCCGGCCAGAGCCGAGCCAAGC
GTGCCCCGCGTGTGTCCCTGCGTGTCCGCGAGGATGCGTGTTCGCGGGTGTGTGCTGCGTTCACAGGTGTTTCTGC
GGCAGGCGCC**ATGT**CAGAACCGGCTGGGGATGTCCGTGAGAACCCTATGCGGCAGCAAGGCCTGCCGCGCCTCTT
CGGCCCAGTGGACAGCGAGCAGCTGAGCCGCGACTGTGATGCGCTAATGGCGGGCTGCATCCAGGAGGCCCGTGA
GCGATGGAACCTTCGACTTTGTACCGAGACACCACTGGAGGGTGACTTCGCCTGGGAGCGTGTGCGGGGCTTGG
CCTGCCCAAGCTCTACCTTCCCACGGGGCCCCGGCGAGGCCGGGATGAGTTGGGAGGAGGCAGGCGGCCTGGCAC
CTCACCTGCTCTGCTGCAGGGGACAGCAGAGGAAGACCATGTGGACCTGTCACTGTCTTGTACCCTTGTGCCTCG
CTCAGGGGAGCAGGCTGAAGGGTCCCCAGGTGGACCTGGAGACTCTCAGGGTCGAAAACGGCGGCAGACCAGCAT
GACAGATTTCTACCACTCCAAACGCCGGCTGATCTTCTCCAAGAGGAAGCCCT**TAA**TCCGCCACAGGAAGCCTGC
AGTCCTGGAAGCGCGAGGGCCTCAAAGGCCCGCTCTACATCTTCTGCCTTAGTCTCAGTTTGTGTGTCTTAATTA
TTATTTGTGTTTTAATTTAAACACCTCCTCATGTACATACCCTGGCCGCCCCCTGCCCCAGCCTCTGGCATT
GAATTATTTAAACAAAACTAGGCGGTTGAATGAGAGGTTCTTAAGAGTGCTGGGCATTTTTATTTATGAAATA
CTATTTAAAGCCTCCTCATCCCGTGTCTCTCTTCTCTCTCCCGAGGTTGGGTGGGCCGGCTTCATGCCAGC
TACTTCTCTCTCCCACTTGTCCGCTGGGTGGTACCCTCTGGAGGGGTGTGGCTCCTTCCCATCGCTGTACAGG
CGGTTATGAAATTCACCCCTTTCTGGACACTCAGACCTGAATTCTTTTTCATTTGAGAAGTAAACAGATGGCA
CTTTGAAGGGGCTCACCGAGTGGGGGCATCATCAAAACTTTGGAGTCCCCTCACCTCCTCTAAGGTTGGGCAG
GGTGACCCTGAAGTGAGCACAGCCTAGGGCTGAGCTGGGGACCTGGTACCCTCCTGGCTCTTGATACCCCTCT
GTCTTGTGAAGGCAGGGGGAAGGTGGGGTCTGGAGCAGACCACCCCGCCTGCCCTCATGGCCCTCTGACCTGC
ACTGGGGAGCCCGTCTCAGTGTGAGCCTTTTCCCTCTTTGGCTCCCCTGTACCTTTTGAGGAGCCCCAGCTACC
CTTCTTCTCCAGCTGGGCTCTGCAATTCCTCTGCTGCTGTCCCTCCCCCTTGCTCTTTCCCTTCAGTACCCTC
TCAGCTCCAGGTGGCTCTGAGGTGCCTGTCCACCCCCACCCCCAGCTCAATGGACTGGAAGGGGAAGGGACACA
CAAGAAGAAGGGCACCCCTAGTTCTACCTCAGGCAGCTCAAGCAGCGACCGCCCCCTCCTCTAGCTGTGGGGGTGA
GGGTCCCATGTGGTGGCACAGGCCCTTGAAGTGGGGTTATCTCTGTGTTAGGGGTATATGATGGGGGAGTAGAT
CTTTCTAGGAGGGAGACACTGGCCCTCAAATCGTCCAGCGACCTTCCTCATCCACCCATCCCTCCCCAGTTCA
TTGCACTTTGATTAGCAGCGGAACAAGGAGTCAGACATTTTAAGATGGTGGCAGTAGAGGCTATGGACAGGGCAT
GCCACGTGGGCTCATATGGGGCTGGGAGTAGTTGTCTTTCTGGCACTAACGTTGAGCCCCTGGAGGCACTGAAG
TGCTTAGTGTACTTGGAGTATTGGGGTCTGACCCCAAACACCTTCAGCTCCTGTAACTACTGGCCTGGACTGT
TTTCTCTCGGCTCCCCATGTGTCTTCCGTTTCTCCACCTAGACTGTAACTCTCGAGGGCAGGGACCAC
ACCTGTACTGTTCTGTGTCTTTCACAGCTCCTCCACAATGCTGAATATACAGCAGGTGCTCAATAAATGATTC
TTAGTGACTTTAAAAAAAAAAAAAAAAAAAA

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FIGURE 193

MSEPAGDVRQNPCGSKACRRLFGPVDSEQLSRDCDALMAGCIQEARERWNFDFVTETPLEGDFAWERVRLGLPK
LYLPTGPRRGRDELGGRRPGTSPALLQGTAEDHVDLSLSCTLVPRSGEQAEGSPGGPGDSQGRKRRQTSMTDF
YHSKRRLIFSKRKP

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FIGURE 194

GTGGAACCTCGATATTGGTGGTGTCCATCGTGGGCAGCGGACTAATAAAGGCC**ATG**GCGCCAGCAGAAATCCTGA
ACGGAAGGAGATCTCCGCGCAAATAAGGGCGAGACTGAAAAATCAAGTCACTCAGTTGAAGGAGCAAGTACCTG
GTTTCACACCACGCCTGGCAATATTACAGGTTGGCAACAGAGATGATTCCAATCTTTATATAAATGTGAAGCTGA
AGGCTGCTGAAGAGATTGGGATCAAAGCCACTCACATTAAAGTTACCAAGAACAACCACAGAATCTGAGGTGATGA
AGTACATTACATCTTTGAATGAAGACTCTACTGTACATGGGTCTTAGTGCAGCTACCTTTAGATTAGAGAATT
CCATTAACTGAAGAAGTGATCAATGCTATTGCACCCGAGAAGGATGTGGATGGATTGACTAGCATCAATGCTG
GGAGACTTGCTAGAGGTGACCTCAATGACTGTTTCATTCTTGTACGCCTAAGGGATGCTTGGAACTCATCAAG
AGACAGGGGTGCCGATTGCCGGAAGGCATGCTGTGGTGGTTGGGCGCAGTAAAAATAGTTGGGGCCCCGATGCATG
ACTTGCTTCTGTGGAACAATGCCACAGTGACCACCTGCCACTCCAAGACTGCCCATCTGGATGAGGAGGTAAATA
AAGGTGACATCCTGGTGGTTGCAACTGGTCAGCCTGAAATGGTTAAAGGGGAGTGGATCAAACCTGGGGCAATAG
TCATCGACTGTGGAATCAATTATGTCCAGATGATAAAAAACCAAATGGGAGAAAAGTTGTGGGTGATGTGGCAT
ACGACGAGGCCAAAGAGAGGGCGAGCTTCATCACTCCTGTTCTGGCGGCGTAGGGCCCATGACAGTTGCAATGC
TCATGCAGAGCACAGTAGAGAGTGCCAAGCGTTTCCTGGAGAAATTTAAGCCAGGAAAGTGGATGATTAGTATA
ACAACCTTAACCTCAAGACACCTGTTCCAAGTGACATTGATATATCACGATCTTGTAACCGAAGCCCATTGGTA
AGCTGGCTCGAGAAATTGGTCTGCTGTCTGAAGAGGTAGAATTATATGGTGAAACAAAGGCCAAAGTTCTGCTGT
CAGCACTAGAACGCCTGAAGCACCGGCCTGATGGGAAATACGTGGTGGTGAAGTGAATAACTCCAACACCCCTGG
GAGAAGGGAAAAGCACAACACTACAATCGGGCTAGTGCAAGCCCTTGGTGCCCATCTCTACCAGAATGTCTTTGCGT
GTGTGCGACAGCCTTCTCAGGGCCCCACCTTTGGAATAAAAGGTGGCGCTGCAGGAGGCGGCTACTCCAGGTCA
TTCCTATGGAAGAGTTAATCTCCACCTCACAGGTGACATCCATGCCATCACTGCAGCTAATAACCTCGTTGCTG
CGGCCATTGATGCTCGGATATTTTCATGAAGTACCCAGACAGACAAGGCTCTCTTTAATCGTTTGGTGCCATCAG
TAAATGGAGTGAGAAGGTTCTCTGACATCCAAATCCGAAGGTTAAAGAGACTAGGCATTGAAAAGACTGACCCTA
CCACACTGACAGATGAAGAGATAAACAGATTGCAAGATTGGACATTGATCCAGAAACCATAACTTGGCAAAGAG
TGTTGGATACCAATGATAGATTCTTGAGGAAGATCACGATTGGACAGGCTCCAACGGAGAAGGGTCACACACGGA
CGGCCCAGTTTGATATCTCTGTGGCCAGTGAAATTATGGCTGTCTGCTCACCCTTCTCTAGAAGACATGA
GAGAGAGACTGGGCAAAATGGTGGTGGCATCCAGTAAGAAAGGAGAGCCCGTCAGTGCCGAAGATCTGGGGGTGA
GTGGTGCAGTGACAGTGCTTATGAAGGACGCAATCAAGCCCAATCTCATGCAGACACTGGAGGGCACTCCAGTGT
TTGTCCATGCTGGCCCGTTTGCCAACATCGCACATGGCAATTCCTCCATCATTGCAGACCAGATCGCACTCAAGC
TTGTTGGCCAGAAAGGGTTTGTAGTGACGGAAGCAGGATTTGGAGCAGACATTGGAATGGAAAAGTTTTTTAACA
TCAAATGCCGGTATTCCGGCCTCTGCCCCACGTGGTGGTGCTTGTGGCCACTGTCAGGGCTCTCAAGATGCACG
GGGGCGGCCCCACGGTCACTGCTGGACTGCCTCTTCCAAGGCTTACATACAGGAGAACCTGGAGCTGGTTGAAA
AAGGCTTCAGTAACCTGAAGAAACAAATTGAAAATGCCAGAATGTTTGAATTCCAGTAGTAGTGCCGTGAATG
CATTCAAGACGGATACAGAGTCTGAGCTGGACCTCATCAGCCGCTTTCCAGAGAACATGGGGCTTTTGATGCCG
TGAAGTGCACTCACTGGGCAGAAAGGGGGCAAGGGTGCTTAGCCCTGGCTCAGGCCGTCCAGAGAGCAGCACAA
CAGGAGCAGCTTCCAGCTCCTTTATGACCTCAAGCTCCAGTTGAGGATAAAATCAGGATCATTGCACAGAAGA
TCTATGGAGCAGATGACATTGAATTACTTCCCGAAGCTCAACACAAAGCTGAAGTCTACACGAAGCAGGGCTTG
GGAATCTCCCCATCTGCATGGCTAAAACACACTTGTCTTTGTCTCACAACCCAGAGCAAAAAGGTGTCCCTACAG
GCTTCATTCTGCCCATTCGCGACATCCGCGCCAGCGTTGGGGCTGGTTTTCTGTACCCCTTAGTAGGAACGATGA
GCACAATGCCTGGACTCCCCACCGGCCCTGTTTTTATGATATTGATTTGGAACCTGAAACAGAACAGGTGAATG
GATTATTCT**TAA**ACAGATACCATCCATCTTCAAGAAGCTACTTTGAAAGTCTGGCCAGTGTCTATTAGGCCCCAC
TGGGAGTTAGGAAGTATAAGTAAGCCAAGAGAAGTCAGCCCCCTGCCAGAAAGATCTGAAACTAATAGTAGGAGTT
TCCCCAGAAGTCATTTTTCAGCCTTAATTCTCATCATGTATAAATTAACATAAATCATGCATGTCTGTTTACTTTA
GTGACGTTCCACAGAATAAAAGGAAACAAGTTTGC

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FIGURE 195

MAPAEILNGKEISAQIRARLKNQVTQLKEQVPGFTPRLAILQVGNRDDSNLYINVKLKAAEEIGIKATHIKLPRT
TTESEVMKYITSLNEDSTVHGFLVQLPLDSENSINTEEVINAIPEKDVDGLTSINAGRLARGDLNDCFIPCTPK
GCLELIKETGVPIAGRHAVVGRSKIIVGAPMHDLLLWNNATVTTCHSKTAHLDEEVNKGDIILVVATGQPEMVKGE
WIKPGAIVIDCGINYVPDDKKPNGRKVVGDVAYDEAKERASFITPVPGGVGPMTVAMLMQSTVESAKRFLEKFKP
GKWWIQYNNLNLKTPVPSDIDISRSCKPKPIGKLAREIGLLSEEVELYGETKAKVLLSALERLKHRPDGKYVVVT
GITPTPLGEGKSTTTIGLVQALGAHLYQNVFACVRQPSQGPTFGIKGGAAGGGYSQVIPMEEFNLHLTGDIHAIT
AANNLVAAIDARIFHELTQTDKALFNRLVPSVNGVRRFSDIQIRRLKRLGIEKTDPTTLTDEEINRFARLDIDP
ETITWQRVLDTNDRFLRKITIGQAPTEKGHTRTAQFDISVASEIMAVLALTTSLEDMRERLGKMMVASSKKGEPV
SAEDLGVSALTVMKDAIKPNLMQTLEGTPVFVHAGPFANIAHGNSIIADQIALKLVGPEGFVVTEAGFGADI
GMEKFFNIKCRYSGLCPHVVLVATVRALKMHGGGPTVTAGLPLPKAYIQENLELVEKGFSNLKKQIENARMFGI
PVVVAVNAFKTDTESELDLISRLSREHGAFDAVKCTHWAEGGKGALALAQAVQRAAQAPSSFQLLYDLKLPVEDK
IRIIAQKIYGADDIELLPEAQHKAEVYTKQGFGNLPICMAKTHLSLSHNPEQKGVPTGFILPIRDIRASVGAGFL
YPLVGTMTMPGLPTRPCFYDIDLDPETEQVNGLF

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FIGURE 196

CGCGATTCTCAGGGATTGATCCGCCTCTTCAGGTAAGTTATCTTCCGGCCCCGTACCACTGTGCCACAGGCGCAG
CCCGCTTCCTCAGGTGCCCTATCCCGCGCAGAAGACCACGGCTTCACAGAGTGTTATTTAAGGGCGTGGCCAGCG
GAACATCCCGCCCCATTCTGTGACGCACGGGTGGCGCGCGTGGGACCCGAGGGGTGGGGCTGGGTTTAGTAGGA
GACCTGGGGCAAGGCCCCCTGTGGACGACCATCTGCCAGCTTCTCTCGTTCCGTTCGATTGGGAGGAGCGGTGGCG
ACCTCGGCCTTCAGTGTTTCCGACGGAGTGAATGGCGGCGGGCGGTGGGATGCTGCTGCTGGGCTTGCTGCAGGC
GGGTGGGTGCGTGCTGGGCCAGGCGATGGAGAAGGTGACAGGCGGCAACCTCTTGTCATGCTGCTGATCGCCTG
CGCCTTCACCCTCAGCCTGGTCTACCTGATCCGTCTGGCCGCCGGCCACCTGGTCCAGCTGCCCGCAGGGGTGAA
AAGTCTCCATACATTTTCTCCCCAATTCCATTCCCTTGGGCATGCCATAGCATTTGGGAAAAGTCCAATTGAATT
TCTAGAAAATGCATATGAGAAGTATGGACCTGTATTTAGTTTTTACCATGGTAGGCAAGACATTTACTTACCTTCT
GGGGAGTGATGCTGCTGCACTGCTTTTTAATAGTAAAAATGAAGACCTGAATGCAGAAGATGTCTACAGTCGCCT
GACAACACCTGTGTTTGGGAAGGGAGTTGCATACGATGTGCCTAATCCAGTTTTCTTGAGCAGAAGAAAATGTT
AAAAAGTGGCCTTAACATAGCCCACTTTAAACAGCATGTTTCTATAATTGAAAAAGAAACAAAGGAATACTTTGA
GAGTTGGGGAGAAAGTGGAGAAAAAAATGTGTTTGAAGCTCTTCTGAGCTCATAATTTTAACAGCTAGCCATTG
TTTGCATGGAAAGGAAATCAGAAGTCAACTCAATGAAAAGGTAGCACAGCTGTATGCAGATTTGGATGGAGGTTT
CAGCCATGCAGCCTGGCTCTTACCAGGTTGGCTGCCTTTGCCTAGTTTCAGACGCAGGGACAGAGCTCATCGGGA
AATCAAGGATATTTTCTATAAGGCAATCCAGAAACGCAGACAGTCTCAAGAAAAAATGATGACATTCTCCAAAC
TTTACTAGATGCTACATACAAGGATGGGCGTCCTTTGACTGATGATGAAGTAGCAGGGATGCTTATTGGATTACT
CTTGGCAGGGCAGCATACTCTCAACTACTAGTGCTTGGATGGGCTTCTTTTTGGCCAGAGACAAAACACTTCA
AAAAAATGTTATTTAGAACAGAAAAACAGTCTGTGGAGAGAATCTGCCTCCTTTAACTTATGACCAGCTCAAGGA
TCTAAATTTACTTGATCGCTGTATAAAAAGAAACATTAAGACTTAGACCTCCTATAATGATCATGATGAGAATGGC
CAGAACTCCTCAGACTGTGGCAGGGTATACCATTCCCTCCAGGACATCAGGTGTGTGTTTCTCCCACTGTCAATCA
AAGACTTAAAGACTCATGGGTAGAACGCCTGGACTTTAATCCTGATCGCTACTTACAGGATAACCCAGCATCAGG
GGAAAAGTTTTGCCTATGTGCCATTGGAGCTGGGCGTCATCGTTGATTGGGGAAAAATTTGCCTATGTTCAAAAT
TAAGACAATTTGGTCCACTATGCTTCGTTTATATGAATTTGATCTCATTGATGGATACTTTCCCACTGTGAATTA
TACAACATGATTACACCCCTGAGAACCCAGTTATCCGTTACAAACGAAGATCAAAATGAAAAAGGTTGCAAGG
AACGAATATATGTGATTATCACTGTAAGCCACAAAGGCATTTCGAAGAGAATGAAGTGACAAAACAACCTTTGTA
GTTTACTGTTTTTTTTAAGTGTGTAATTCTAAAAGCCAGTTTATGATTTAGGATTTTGTTAACTGAATGGTTCTAT
CAAATATAATAGCATTTGACACATTTCTAATAGTTATGATACTTATACATGTGCTTTCAGGAAGTTCCTTGGTG
AAACAATTGTTGAGGGGGGATCTAGGTAATTGGCAGATTCTAAATAATATAATTTCCAGATAGTAATTTTAAGAG
TACTCATCGCTCTTGCCAAATAAGTTCAGGGTATTCAAATCTTGGACTAGTCTGCAAGGTATAAAGAATAAAAA
TCCCAGTGAGATACTTGGAAACCACAGTTTATTATTATTTATCTGGGCAATTATTGTGTGTGTGAGGATGGAAGG
GTAGGGAATAATCGAACATCTAAAGCCTTGAATAAGAGAATACTAATTGTTTTGGTATGATGATACTCAGAAATG
GAGATATTATAGGAAAAAGAAATCCTTTGGAATTTTAACTAAAATCACTGCATATGGGAAATTAAGAGATCCAGG
ACCATATTTGATAAGAGTTCCCTAAAAATAATGTAATTATTAATGCTAAAGACTGCTCATGTATCTTGATCTAATT
ACTAAATAAATTACATATTTATTTACCTGATAAATATGTATCTAGTTCTACAAGGTCACATTTATGTGGAAGTCC
AAAGTCAAGTCTTAGGGGATAATTTGTTTTGGGCTCAGTTGTTCCCTGCTTCTTTTTTTTTTTTTTTTTTTTTT
TTGAGATGGAGTCTCGCTCTGTTGCCAGGCTGGAGTGCAGTGGTGCATCTCAGCTCACTGCATCCTCTGCCTC
CCGGGTTCAAGCAATTCTCTGCCTCAGCCTCCCAAGTAGTTGGGATTACAGGCACCTGCCACCATGCCTGGCTAA
TTTTTTGATTTTTTAGTAGAGACGGGGGTTTCACTATGTTGGCTAGGCTGGTCTTGAACCTCTGAGCCTCGTGAG
TCCACCCGCCCTTGGCCTCCCAAAGTGCTGGGATTACAGGCATGAGCCACCGCACCTGGCCTTCCCTGCTTCTCT
CTAGAATCCAATTAGGGATGTTTGTACTACTCATATTGATTAAACAGTTAACAAACTTTTTCTTTTTTAAAT
GTGAGATCAGTGAACCTCTGGTTTTAAGATAATCTGAAACAAGGTCCTTGGGAGTAATAAAATTTGGTCACATTCTG
TAAAGCACATTCTGTTTAGGAATCAACTTATCTCAAATTGTAACCTCGGGGCCTAACTATATGAGATGGCTGAAAA
AATACCACATCGTCTGTTTTCACTAGGTGATGCCAAAATATTTTGCTTTATGTATATTACAGTCTTTTTTAAAC
ACTGGAAGACTCATGTTAACTCTAATTGTGAAGGCAGAATCTCTGCTAATTTTTCAGATTAAATTTCTCTTTGA
AAAAAT

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FIGURE 197

MAAAAGMLLLGLLQAGGSVLGQAMEKVTGGNLLSMLLIACAFTLSLVYLIRLAAGHLVQLPAGVKSPPIFSP
FLGHAIAFGKSPIEFLENAYEKYGPVFSFTMVGKFTFTYLLGSDAAALLFNSKNEDLNAEDVYSRLTTPVFGKVA
YDVPNPVFLEQKKMLKSGLNIAHFKQHVSIIKETKEYFESWGESGEKNVFEALSELIILTASHCLHGKEIRS
NEKVAQLYADLDGGFSHAAWLLPGWLPLPSFRRRDRAHREIKDIFYKAIQKRRQSQEKIDDILQTLLDATYKDGR
PLTDDEVAGMLIGLLLAGQHTSSTTSAWMGFFLARDKTLQKKCYLEQKTVCGENLPPLTYDQLKDLNLLDRCIK
TLRLRPPIMIMRMARTPQTVAGYTIPPGHQVCVSPTVNQRLKDSWVERLDFNPDRYLQDNPASGEKFAIVPFGA
GRHRCIGENFAYVQIKTIWSTMLRLYEFDLIDGYFPTVNYTTMIHTPENPVIRYKRRSK

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FIGURE 198

TCGGGAAGCCATAGGGCGCCTCCCAGCCCGTCTCCCCGCTCCAGTTTAGAACCTAATTCCCAATTCCCGGACCGG
 GCCCAGCCCTGGGCTCTTACTGTCCGCTTTTGCTGGGACCTGTTCCACAAATGGGCGTCTTCTGCCTTGGGCCGT
 GGGGGTTGGGCCCGGAAGCTGCGGACGCCTGGGAAGGGCCGCTGCAGCTCTTGAGCCGCCTCTGCGGGGACCACT
 TGCAGGCCATCCCAGCCAAGAAGGCCCGGCTGGGCAGGAGGAGCCTGGGACGCCGCCCTCCTCGCCGCTGAGTG
 CCGAGCAGTTGGACCGGATCCAGAGGAACAAGGCCGCGGCCCTGCTCAGACTCGCGGCCCGCAACGTGCCCGTGG
 GCTTTGGAGAGAGCTGGAAGAAGCACCTCAGCGGGGAGTTGGGGAAACCGTATTTTATCAAGCTAATGGGATTTG
 TTGCAGAAGAAAGAAAGCATTACACTGTTTATCCACCCCCACACCAAGTCTTCACCTGGACCCAGATGTGTGACA
 TAAAAGATGTGAAGTTGTTCATCCTGGGACAGGATCCATATCATGGACCTAATCAAGCTCACGGGCTCTGCTTTA
 GTGTTCAAAGGCCTGTTCCGCCTCCGCCAGTTTGGAGAACATTTATAAAGAGTTGTCTACAGACATAGAGGATT
 TTGTTTCATCCTGGCCATGGAGATTTATCTGGGTGGGCCAAGCAAGGTGTTCTCCTTCTCAACGCTGTCTTACGG
 TTCGTGCCCATCAAGCCAACCTCTCATAAGGAGCGAGGCTGGGAGCAGTTCACTGATGCAGTTGTGTCTTGGCTAA
 ATCAGAAGTGAATGGCCTTGTTTTCTTGCTCTGGGGCTCTTATGCTCAGAAGAAGGGCAGTGCCATTGATAGGA
 AGCGGCACCATGTACTACAGACGGCTCATCCCTCCCTTTTGTCAGTGTATAGAGGGTCTTTGGATGTAGACACT
 TTTCAAAGACCAATGAGCTGCTGCAGAAGTCTGGCAAGAAGCCCATTGACTGGAAGGAGCTGTGATCATCAGCTG
 AGGGGTGGCCTTTGAGAAGCTGCTGTAAACGTATTTGCCAGTTACGAAGTCCACTGAAAATTTTCTTATTAATT
 CTTAAGTACTCTGCATAAGGGGGAAAAGCTTCCAGAAAGCAGCCATGAACCAGGCTGTCCAGGAATGGCAGCTGT
 ATCCAACCACAAACAACAAGGCTACCCTTTGACCAAATGTCTTTCTCTGCAACATGGCTTCGGCCTAAAATATG
 CAGAAGACAGATGAGGTCAAATACTCAGTTGGCTCTCTTTATCTCCCTTGCCCTTTATGGTGAAACAGGGGAGATG
 TGCACCTTTTCAAGCACAGCCCTAGTTTGGCGCCTGCTGCTCCTTGGTTTTGCCTGGTTAGACTTTTCAAGTACAGA
 TGTTGGGGTGTTTTTGGCTTAGAAAGGTCCCTTGTCTCAGCCTTGCAAGGCAGGCATGCCAGTCTCTGCCAGTTC
 CACTGCCCCCTTGATCTTTGAAGGAGTCTCAGGCCCTCGCAGCATAAGGATGTTTTGCAACTTTCCAGAATCT
 GGCCAGAAATTAGGGCTCAATTTCTGATTGTAGTAGAGGTTAAGATTGCTGTGAGCTTTATCAGATAAGAGAC
 CGAGAGAAGTAAGCTGGGTCTTGTTATTCCTTGGGTGTTGGTGGAATAAGCAGTGGAATTTGAACAAGGAAGAGG
 AGAAAAGGGAATTTTGTCTTTATGGGGTGGGGTGATTTTCTCCTAGGGTTATGTCCAGTTGGGGTTTTTAAGGCA
 GCACAGACTGCCAAGTACTGTTTTTTTTTAACCGACTGAAATCACTTTGGGATATTTTTTCTGCAACACTGGAAA
 GTTTTAGTTTTTTAAGAAGTACTCATGCAGATATATATATATATATTTTCCCAGTCCTTTTTTTAAGAGACGGT
 CTTTATTGGGTCTGCACCTCCATCCTTGATCTTGTTAGCAATGCTGTTTTTGCTGTTAGTCGGGTTAGAGTTGGC
 TCTACGCGAGGTTTGTTAATAAAAGTTTGTTAAAGTTTAAAAAAAAAAAAAAAAAAAA

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FIGURE 199

MIGQKTLYSFFSPSPARKRHAPSPEPAVQGTGVAGVPEESGDAAAIPAKKAPAGQEEPSTPPSSPLSAEQLDRIQ
RNKAAALLRLAARNVPVGFGEWKKHLSGEFGKPYFIKLMGFVAERKHYTVYPPPHQVFTWTQMCDIKDVKVI
LGQDPYHGPNQAHGLCFVQRPVPPPSLENIYKELSTDIEDFVHPGHGDLGWAKQGVLLNVLTVRAHQANS
HKERGWEQFTDAVVSWLNQNSNGLVFLWGSYAQKKGSAIDRKRHHVLQTAHPSPLSVYRGFFGCRHFSKTNELL
QKSGKKPIDWKEL

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FIGURE 200

ACCGCCGACGCAGACCCCTCTCTGCACGCCAGCCCGCCCGCACCCACCATGGCCACAGTTCAGCAGCTGGAAGGA
AGATGGCGCCTGGTGGACAGCAAAGGCTTTGATGAATACATGAAGGAGCTAGGAGTGGGAATAGCTTTGCGAAAA
ATGGGCGCAATGGCCAAGCCAGATTGTATCATCACTTGTGATGGTAAAAACCTCACCATAAAAACTGAGAGCACT
TTGAAAACAACACAGTTTTCTTGTACCCTGGGAGAGAAGTTTGAAGAAACCACAGCTGATGGCAGAAAACTCAG
ACTGTCTGCAACTTTACAGATGGTGCATTGGTTCAGCATCAGGAGTGGGATGGGAAGGAAAGCACAATAACAAGA
AAATTGAAAGATGGGAAATTAGTGGTGGAGTGTGTCATGAACAATGTCACCTGTACTCGGATCTATGAAAAAGTA
GAATAAAAATTCCATCATCACTTTGGACAGGAGTTAATTAAGAGAATGACCAAGCTCAGTTCAATGAGCAAATCT
CCATACTGTTTCTTTCTTTTTTTTTTTCATTACTGTGTTCAATTATCTTTATCATAAACATTTTACATGCAGCTAT
TTCAAAGTGTGTTGGATTAATTAGGATCATCCCTTTGGTTAATAAAATAAATGTGTTTGTGCT

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FIGURE 201

MATVQQLEGRWRLVDSKGFDEYMKELGVGIALRKMGAMAKPDCIITCDGKNLTIKTESTLKTTQFSCTLGEKFEE
TTADGRKTQTVCNFTD GALVQH QEWDGKESTITRKLKDGKLVVECVMMNNVTCTRIYEKVE

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FIGURE 202

GGGACTACATTTCCAGGGGGCAGAGGCAGGGGCGGGAGGGGGCGGGCCCCGGCGCTGCTCCCGCCCCCTCCCCCG
TGCTCGCGGGGAGAGGTAAACAAACCACGCGCGGGCTGCCCGCGGCACGGCGGGGCGCGGCTGGCGCGGCTGGGGC
GGCAGGGGCGGGGAGAGCGCGCCGAGCCGCGGGCCGAGCTGGCCCCGCCCGCCCGTCCGACATGTTCCGGAACGGC
GCCCCGGCCGTAGCCGCCTGCGGCGCCTCCTGTGCGCCCGAGAAGGGAGTGCGGAGAGGCGCCGGTCCGCAACCCGC
GGTGGCCCATGGAGCGGGTGAAGATGATCAACGTGCAGCGTCTGCTGGAGGCTGCCGAGTTTTTGGAGCGCCGGGA
GCGAGAGTGTGAACATGGCTACGCCTCTTCATTCCTGTCATGCCGAGCCCCCGACTGCAGCATTCAAAGCCCCC
ACGGAGGTTGAGCCGGGCACAGAAACACAGCAGCGGGAGCAGCAACACCAGCACTGCCAACAGATCTACACACAA
TGAGCTGGAAAAGAATCGACGAGCTCATCTGCGCCTTTGTTTAGAACGCTTAAAGTTCTGATTCCACTAGGACC
AGACTGCACCCGGCACACAACACTTGGTTTGCTCAACAAAGCCAAAGCACACATCAAGAACTTGAAGAAGCTGA
AAGAAAAAGCCAGCACCAGCTCGAGAATTTGGAACGAGAACAGAGATTTTTAAAGTGGCGACTGGAACAGCTGCA
GGGTCTCAGGAGATGGAACGAATACGAATGGACAGCATTGGATCAACTATTTCTTCAGATCGTTCTGATTGAGA
GCGAGAGGAGATTGAAGTGGATGTTGAAAGCACAGAGTTCTCCCATGGAGAAAGTGGACAATATAAGTACCACCAG
CATCAGTGACATTGATGACCACAGCAGCCTGCCGAGTATTGGGAGTGACGAGGGTTACTCCAGTGCCAGTGTCAA
ACTTTCATTCACTTCATAGAACCCAGCATGACATAACAGTGCAGGGCAAAATATTCAGTGGGCCAATTCAATACA
AACAATCTCTTAAATTGGGTTTCATGATGCAGTCTCCTCTTTAAACAAAACAAAACAAAACAAAACATACTTGA
ACAAAAGGGTCAGAGGACCTGTATTTAAGCAAATACTTAGCAAAAAGTGGGGCAGAGCCTCCCAAGGAGAACAAA
TATTCAGAATATTCATATTGGAAAAATCACAATTTTTAATGGCAGCAGAAAACCTGTGTGAAATTTCTTGATTT
GAGTTGATTGAGAAGAGGACATTGGAGATGCCATCCTCTTTCTCTTTCTAGTTTGCTCATACTACATTGAGTAG
ACACATTTAAGGATGGGGTTATGAACCTTCTGAGCTTTATGGTCTTAAAGCAAAATAAAACTATTGCAATG
AAAAGACAAGAAAATCAGGTATTAATCTTGGATAGCTAATAATGAGCTATTAAACTCAGCCTGGGACAGTTTAT
CATGAAGCCTGTGGATGATCAATCCTTTATTATTATTTTTTTTTTTTGAAGGCTCATTTCATGCTCTGCAA
AGGAGAGACTCCCATGAAGCCTTTTGAAGGGATCATCATGCAGCTCAACTTTCTGTTGGATTCCATGCTAAGCA
AGCTAACCTTATCCTGCATTGTTAGCACTAGGCACCCAGCTGCCACCTCTCCATCCTGCTGCCCTTAGGCCACAT
GGGAGCAGTCCATGCATGACAGCCTCTATCCTACAAGGCCTATGAGTATGGATTGGGGGGGCCAAAAGGAAAAAG
CTCCATGTGCCTCTTTGTCTGCGTGGGTGAGAAGAGTTGTGCACGCAGATTAGCAGGCCAAGGTCTGAGCCACAG
CAGCATTTTTTATTTTATTTTATTTGATAACTGTTTATATGTGTTGAAAACCAAAATGACATCTTTTTAAAGCTTATC
CATAAAAAAAATAGATGTCTTTTATAGTGGAAAAACACATGGGGAAAAAAATCATCTATTTTATGATGCAGCATTT
GATAATGATAAAACACCTCACACCTCACTCTTTATAGTGACAAAAATGAATGAGGTCTGGGCTAGGTAGAAAAAG
GGTCAATGCTATTTTTGTTTTTGAATCATTACCTTTTACCAGCTTTTAAACCATCTGATATCTATAGTAGACACA
CTATCATAGTTAACATAGTTAAGTTCAGCACTTGTCTCATTTTAAATGTAAAGATTGCTTCCATTTTCTACAGG
CAGTCTCTCTCTTCTCACAGTCCCACTGTGCAGGTGCTATTGTTACTCTTACGAATATTTTCAGTAATGTTATT
TTCTTCTAAGTGAAATTTCTAGCCTGCACTTTGATGTGATGTGTTCCCTTTGTCTTTCAAACCTCAAGGTTCCCC
TGTGGCCCTCTCCCTTACCCTGGGAAGGCCTCTTGGAGACCTTACCCCTGGCTGTTTGGACTTTGTATACTTTAA
ATAATTTAACTACCCTTAATTACTTAAAAAAGCTTTATGATTTTCATAACTTATTGCTGATTTTAAAT
GGATTGTTAATTTAGTCCCTGTAGTTTTATTTTATGTTTAGATAGGGCTGGGCAAGGAAAAAGAAAATAAGACA
ACCATATTTAGCAGTGCA

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FIGURE 203

MERVKMINVQRLLEAAEFLERRERECEHGYASSFPSMPSPRLQHSKPPRRLSRAQKHSSGSSNTSTANRSTHNEL
EKNRRHLRLCLERLKVLIPLGPDCTRHTTLGLLNKAKAHIKKLEEAERKSQHQLLENLEREQRFLKWRLEQLQGP
QEMERIRMDSIGSTISSDRSDSEREEIEVDVESTEFSHGEVDNISTTISDIDDHSSLPSIGSDEGYSSASVKLS
FTS

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FIGURE 204A

CGGTGCTGGAGAAGTTTGCCTGCGGTTTCGTGAGCGCAGGGTGCGGGCCCCGCCGGCCGCTGCGCGCCCGCTGCC
ATGGCTTTCCGCAGGAGGACGAAAAGTTACCCGCTCTTCAGCCAGGAGTTTCGTATCCACAACCATGCGGACATC
GGCTTCTGCCTGGTGCTCTGCGTCCTCATCGGGCTTATGTTTCAGGTCACAGCCAAGACTGCCTTTCTATTTATT
TTACCTCAGTATAACATTAGCGTGCTACAGCAGACAGTGAGACCGTGCCTACCACTATGGCCCTAAGGACCTG
GTCACAATCTTGTTCTACATCTTCATCACCATCATCTTGATGCTGTGGTTTCAGGAGTACATTTTAGATAAAAATC
AGCAAACGGCTTCATCTCTCCAAAGTCAAACACAGCAAGTTCAATGAATCTGGACAGCTGGTCGTCTTTCATTTC
ACCTCGGTGATTTGGTGCTTCTACGTGGTGGTGACGGAAGGATACTTAACAAACCCAAAGAAGCCTCTGGGAAGAC
TACCCGCATGTGCACCTCCCCCTCCAGGTGAAGTTTTTCTACCTATGCCAGCTGGCCCTACTGGCTGCACGCACTT
CCTGAGCTATACTTCCAGAAGGTACGGAAGGAGGAAATTCGCCGCCAGCTCCAGTATATTTGCCTGTACCTGGTG
CATATAGCTGGAGCATACCTCTTAAACCTGAGCCGCTGGGCCTGATCTTGCTGCTGCTGCAGTACTCAACTGAG
TTCCTCTTCCACACGGCTAGACTCTTCTACTTTGCAGATGAAAACAACGAGAAACTGTTTCAGTGCCTGGGCTGCT
GTTTTTGGGGTTACCCGCTCTTCATCCTCACCTTGCCGTGCTGGCCATTGGCTTTGGACTGGCTCGCATGGAA
AACCAGGCATTTGATCCCAGAAAGGGAACCTCAACACTTTGTTTTGCAGGCTCTGCGTGCTGCTGCTGGTGTGT
GCCGCCAGGCCTGGCTCATGTGGCGCTTCATCCACTCCAGCTGCGGCACTGGCGGGAATACTGGAATGAGCAG
AGTGCAAAGCGGAGAGTCCCAGCCACACCCAGACTACCAGCCAGGCTCATCAAGAGGGAATCTGGTTACCATGAA
AATGGAGTGGTGAAGGCAGAGAACGGAACCTCCCCACGGACTAAGAACTCAAGTCTCCCT**TAAG**GCCAAAGTGCT
AAGAACAGGAATCCTCTTGGTGGGGGCCGAGCAGGGGGCAAGGAGCCAGGCCCCCTCCCTGCCTCCTCCTTCCT
GCCTGTGATGCTCCGTCTCAAACAGCCGAAACCTGTCTTGCAATGGGGGGAGGGGGCGTTTCGCTTTCTCTTCTC
TTGGCTTCTCTTATTCTTCCACAAACCATTTCTCAATAAAGCCAAAAATCTTTCTCTTCTCCCCCTCAGGCCAC
CTCCTGTCCTCACTCCTGTCTGTGCTGGCTTTTCTGGAACGCCAGGCGCCCATGGCTGGCACCCTTCTGCTTGC
TCTGTTTCTTGCTTATGGCTGCTGCTTTTCTTTTTACTTCTATTTTACCTTATCTTGCAATTTTTCTGTCT
GATTTTTACAATGGGAGGGGAGCTAAGATTGCAGTCTGTCTTTCGGTCCCCCAGGGCTGCCGGTCAGAAGCCT
GGGGCTGGTAGGCCCTTGGTGGTCCTCATGTGGATGGGCAAGAAGAGAGCGGCCATCTCGGATCATAATCTCCTT
GGTGCTGATTAAGTACGAGATATATGATTCCAGTTCTGCATGTACCATCTTGAGGCACAGCAGCCACTGCTCGT
TGTAATGCCAAGGCATTTGGCTTTGGGACGTGACAACCTCAATCCAGAAGGATGGTGTGAAGTTCGGTTGGGTCCC
GTGACTCGAGCTCCTACAGTGGCTGGCCGCGGATTGGAAGCCAGCCTGCTGTGCTCTGTGGGGAGGACATGTC
TTCCCACTGCTTAGAGCGAGAGCAGAGCAAACCTGCGCAGCAGGCACCTCCAGAAAGGTAATGGTGGCAGAACCCA
CAGTGGAGTCGACCTAGGCCTTTCTCCAGCAGTCCAGTCCGCACTTGCTTTTTCAGCCATTCAACAAGCATTCAA
ACCAAACCAAACAGCAGTTTATATACCTGCCTGAGATAGGCTGGTCTCACCTCCAGAGCCAGCCAGCCCCGTCA
GGGGCCAAACTTACTACCTTGACTTCATCTCTAGCTGCAGAAACACTAAGTCTCAAGGGCTTCAGCCCCATGCTG
GTCCCTTGGTGTTTACGGGAGGGTCACTTGGACCGCTGTTTCATCTGGCCGCCCTTGTGAGTGTTCTTTGGAATTG
TCGTTTTTTGAGCACAACCTACAGCATTTTACTGCTGATGAAACCATGACTGACTGAGAGTCACTCTCTGGGTAGA
TGATAGGCGCCTTTCTGGCCCCCTCCCTCACAGATTCTTTCCCCCTCCCTCCACCTGAAGAGAAGGCCTCCAAGT
CCTTTTGGTGCTTGTGAGGACTTTTAGAAGGGGCGTTTCAGCTTTAAAAGCCGGTCTAATTACGGCCGGACGC
AGTAGCTTACGCCTGTTATCCCAGCACTTTGGGAGGTCGAGGTGGGCAGATCACCTGAGGTTAGGAGTTCAAGAC
CAGCCTGGCCAACATGGTGAAACCCCATCTCTACTAAAAATACAAAAAATTAGGTGTAGTGGCAGGCACCTGTAA
TCCCAGCTACTCGGGAGGCTGAGGCAGGAGAAATCGCTTGAACCTAGAAGGTGGAGGTTGCAGTGAGCGGAGATTG
TACCATGGCACTCCAGCCTGGACAACAAGAGCGAAATCTGTCTAAAAAAACAAAAGTCCCAATTAAGAACCTCC
GAACTCTGTTTTGAGGCAAAGGGGAGTAGTTCTTGGTAGGTGCAGGAATAGTAGTGTCATTTGGAATACTGGTCA
TCTTCTGACATCACAGTAGAAACCAAACCTTGGATTTAGATTCAAAAGGGGGGAAATGGGTCTTTTCATCAAGG
CAACTCCCCTTCTCCAAGTCACTTACATCATAGATAAATTTTAGCTTCCCAGTAAGTGGAGGATTGTTTTCTAA
CGCCATTGGAGGCCTTCATCCCTCTCTACGATAAGGTTGCAGAAATGGGAAGAGCTACCCGTGGTTGCTTTTGAT
TACCCTTAGGAAGTGAGACAGTGTTTTTGAATAATGTATTTCTCCATTTCTCCCTCTCCTTCCCTGACACTTC
TCTGGGCTGCACAGCAGAAACGTTGGTAAAAGGGCAGTTTGGTTTTCAACACAGCAGACCTGATATGGGATCCCTT
AGCCACTTTAGTCAAACAGCCCTGACAGAGTCTATAATTGAGTTTCAGGCCCCCACCTTGCCTAATAACTGCAAA
TCGCATGTTTCAGCCAGCAGCCTCCTAAGCCACCTTCTCCCCATTAGAGAACACCCATCCTAGGTGCTCTCCA
GGCTGTGTCATTGGCAGGGCTTCACATGCAGGAGGCCTCTCTCAGGTGAGTCCAGGTTAACTGTTGAGTTGTGG
CTTCAACAGATATGTATGGCATGCTGGGATGTGCCAGGTGCCTGCGTTGTGCCAGTTGCTGGAGAGGTAGTGTGA

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FIGURE 204B

GCAGAGCAGCTGAAATCTTGCCATCAAGCAACCCTCATTCTCATGCCTGTAGGTTTCCATTGCTCTGTCCCAGGA
CACTTGCGTGCCAGAGACGCCACAACCTTCATGTCCCTGTCTCTTGCAAGCTCCCCGTGCTGCCAGTACTTCATGC
CTTGATGTGGTCCCACCAGCCAGTGGCTGGGGTCAGCTTAGGCTCTGCTTCCCAGTGGACGGGTGTGCTAAGG
GTTTATTTTATGTAAAAAACAACCAAAACCCCTGAGACCATGAGTGGGGCTGGCATCTTGCCAGC
CTGGGCTTCAGGGATGTTTGGGGGGGGTGGTTAGAGGGTAGTTGTAGGGTACTTTGTACCCCCCTCCCCCTGCC
ACCCTCCCTGGCACGTTTATTTACAGCAGAGCCAAGTCTGTGGCAGGTTGACACAGACTGTGTTGCCAGAGCTG
AAATAATTCCACTTCATCCTATGAGCGTGTGGGGCTAGCTTGTTCTAATTTTGCCACTTTGGCTGTTTTCTTCA
GTTTTATGCATTCTCTCTGCCCCAAAGTGCCAAGCCATTTGTGAAGGCTCTGCCAGACACCTCCAAGCTTGAGA
GCTCAGCACCATGCACCAAGAGCAGGAGAAAAGACGTAAACCTACCCAGCAACTGTGGCCTCTCGACAGCCCTG
GCTAACTAACTTACATTTGTGGGAAGCCAACAGACACAGCAGGAGGAGAGGGAGGTGGCGCTGGTGGACCAAGG
ATCTGTGCTACCCGCTCCCCCTCTGGAGGTGCAGTGATGATGGGAGTTATTTTACCATCCGGGCGCTGATAGC
TGCACTATTAATAAATTGCATGTGTCTCTTTGAAGGTAGGGGATGGTTCTGGGTGAGAGGGGAGCAGGCTGAGC
CGGCGGGGGATCTGCTGTCTCTCTTTTGAGTCAGTTCTAATCCCATGTGTGTCTGGGCCACCAGACCGAAATGG
TTGCTGAGAACTTGTCTGTTCATGTCCCAAGGCATAACTTCCCAACATTTAAGAAACCCCAATAGACACCTCTG
CCCTGGCCACGTTACAGATCCTTCTCTTGACCGGAAACCCTGGGACCCTAAGAACCCTGAAGCTTGGGGTGGG
TGTGTGCTTCTGGGGTCTCTTTGGGACCTCCTTTGTGAGTACCCCTCTTTTTTCTAAGCAGCTAATAAGAGGT
TGGGTGAAAGAGTGCATCTCTCCAGGATTCCACAACAAAATTCTTATCTTCCATGGATGCTTTAATTGGAAGT
GGGTTGCCGACCCCTTGTGCCAGAAAAGGCCTTTGCTTGGGTTTCTTTGTATGCTTCAGCCTTCTAGTTGG
TTTTTCTAGGCCTGGTGTGAGAGGTAGGGAAGTCTGCACATAACTAATTCTTTTGCTTAAGGGCCTATGGCACA
GTGCACAACTTCAATTCTTGATGTTCTAAGCTCTCTCTCTAACAGAGGGAGTGCTGAAAGCTTTTGAGTCAAG
ACAATGGAGTGCTCTTCTCTCTCACTCTGCCTTCCGAGCTTATGGTTCTTTTTCTCAGGAGAGGATTTTCAGGA
TTATTGGAGGATTAGGTCAATTGTCAGATGACTGGAAAACCTAAATAGGATCTCTCTCCAGCTCAAGGTTGTCCCA
GTGAGGAAGACTTTACCAACTTCTCACTCTACCCCACTACTCACATGAGTGTTAGCTCCACCTTGCAAAGGCTGA
AGACCAGTTCTCCCCAGTGAAAGCTGCCTCATTCTTTTATGGAGTTCCCTGGAGTGCCAGAGCTATAAAGACGAG
CATTGGGATTTGCAGTCTCCATGTAGCCTTTCTGTGCTTGCAACCCCTGTAGACTTTTTGTCCCAAGCAGATTGC
GTGCGTGCGCTGTGTGTGAGAATAAGTGCCCTTACTTTGCTGTGTGGTTTTCAACTTGTACTCCGTGGCCAGCCC
CCAGTTGCCAGGGCTCGACGGCAGCCAAGGACACCATACTCAGTATAGTTATATATAAAATGGACACGGATTGT
GACAGTTTACCCCATTTGTTTCTAACCCTGCTGCCAGGATTAGGGTCTGTGGTGTGTTCTGTTTTGTTTTGG
TTTCTCCCTTGTGTGAGTTCTCTTCTGGCCAGCTGGGTGGCTGTGGAAGTCTGTGAGGTGGCCCAACCACAAGC
ATACCTATTAAGAGAAGCCCAGAGCTTCCAGCCCCACTTCGAAAACCTCTCCTCTGGCCCCACATAGCAAACCTCC
TTCTCCGTTATTTTCCCCACCCCAAGATTTTTTTAAAGGCCCACTTGCCATAACCTCTTTTGGTCTATTTTGC
TTCCCATTCAGCCCAAAGTTTATATGATAAAGGTGTTTACTTTTACTTCCCAGTCTCCAAGTGCTAACACATAAA
CACATACATGTCTGACTGTTGCAGAACTGTTTCGAGCTCCTAATTCAGTGTTACCTTGTTTTAGTCGCAGCAACCC
TCTCCCCTACCCCTTGCCCGCCACGTTTTTCTCACTCTTCCGGGTGTGCAATAACTCTCCAGCCAGTGGTCC
TTCCACAGCCTTTCTGTCCCTTAAACACCTGCAACTGGGGGAGAAATGGGACCCATGGGAGGGGGAGTCATCA
TCCCTTACACAAGAAATAGCCACTTTCCTTTTGTGTGCTTCTGTGATCCTGGGTGGGTTTCTGTGGCACTCTT
TTAGAACATGTAGCATCATCTTAGAGGTCTATTTTTAAAAAATGTGTTGAAGAGGAAAAAACCATTCTCACGATG
GGGCTTAAGTCATTGTCCAGGAATAAGATTGGCGTGGTGCCATGACATCACCGTCACTCTGCCTAAAAGCACTC
TAGAGCTACTTGTTCACGTGGAGAGGAAGGATATTTTGCAGCAACAGCCGAGGTGGAGAGCCCTGTTTACCT
GATAGGGTCTAGCTGTGACAGTAAATATAATACCGCTGTTTCTTGGGTACAGATTTGAGTGTTTCATGTGATGAG
ACTGTAAACCTCATTTTTTCGGTTTCTCTGTTTAAAAAACATCTGAAGGATGAACTAAGGCTGCTGGTGCCCTGA
GCAACTGATAATGCAAATGTGGACAAAGTGTCTGTTTTCTACTCTAGCCTGTTTCATATGGACCAATTTCAACAA
GGAACCAAGGAAAATTTGTACCTGCCGTATTTATGCTTTTCATGTAAAAAAGGGTTGGGGGGAGGGGTGTCTTT
TGCTTTTGGTGAACTTTTTTCAAAATCATTTTTCCACTGTTTCTGTCTGGTTTTAAACAAATTACAGTTTTGT
ATGGATTTTTTAAATGTACATTTTGAACAAATGATCAAATATTTTCTGAAATAACAATAAAAGGCAGAAAATT

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FIGURE 205

MAFRRTKSYPLFSQEFVIHNSHADIGFCLVLCVLIGLMFEVTAKTAFLFILPQYNISVPTADSETVHYHYGPKDL
VTILFYIFITIIILHAVVQEYILDKISKRLHLSKVHSHKFNESGQLVVFHFTSVIWCIFYVVTEGYLTNPRSLWED
YPHVHLPFQVKFFYLCQLAYWLHALPELYFQKVRKEEIPRQLQYICLYLVHIAGAYLLNLSRLGLILLLLQYSTE
FLFHTARLFYFADENNEKLFSAWAAVFGVTRLFILTLAVLAIGFGLARMENQAFDPEKGNFNTLFCRLCVLLLC
AAQAWLMWRFIHSQLRHWREYWNEQSAKRRVPATPRLPARLIKRESGYHENGVVKAENGTSPTKKLKSP

FIGURE 206

AAAACAGCCGGGGCTCCAGCGGGAGAACGATAAATGCAAAGTGCTATGTTCTTGGCTGTTCAACACGACTGCAGAC
CCATGGACAAGAGCGCAGGCAGTGGCCACAAGAGCGAGGAGAAGCGAGAAAAGATGAAACGGACCCTTTTAAAAG
ATTGGAAGACCCGTTTGAGCTACTTCTTACAAAATTCCTCTACTCCTGGGAAGCCCAAAACCGGCAAAAAAGCA
AACAGCAAGCTTTCATCAAGCCTTCTCCTGAGGAAGCACAGCTGTGGTCAGAAGCATTGACGAGCTGCTAGCCA
GCAAATATGGTCTTGCTGCATTGAGGGCTTTTTTAAAGTCGGAATTCTGTGAAGAAAATATTGAATTCTGGCTGG
CCTGTGAAGACTTCAAAAAACCAAATCACCCCAAAAGCTGTCCTCAAAAGCAAGGAAAATATATACTGACTTCA
TAGAAAAGGAAGCTCCAAAAGAGATAAACATAGATTTTCAAACCAAACTCTGATTGCCCAGAATATACAAGAAG
CTACAAGTGGCTGCTTTACAACCTGCCCAGAAAAGGGTATACAGCTTGATGGAGAACAACCTTATCCTCGTTTCT
TGGAGTCAGAATTCTACCAGGACTTGTGTAAAAAGCCACAAATCACACAGAGCCTCATGCTACATGAATGTAA
AAGGGAGCCCAGAAATGGAGGACATTTCAATCTTTTTCTGAGGGGAAGGACTGTGACCTGCCATAAAGACTGAC
CTTGAATTCAGCCTGGGTGTTTCAAGAAACATCACTCAGAACTATTGATTCAAAGTTGGGTAGTGAATCAGGAAGC
CAGTAACTGACTAGGAGAAGCTGGTATCAGAACAGCTTCCCTCACTGTGTACAGAACGCAAGAAGGGAATAGGTG
GTCGTGAACGTGGTGTCTCACTCTGAAAAGCAGGAATGTAAGATGATGAAAGAGACAATGTAATACTGTTGGTCCA
AAAGCATTTAAAATCAATAGATCTGGGATTATGTGGCCTTAGGTAGCTGGTTGTACATCTTTCCCTAAATCGATC
CATGTTACCACATAGTAGTTTTAGTTTAGGATTCAGTAACAGTGAAGTGTCTTACTATGTGCAAGGGTATTGAAGT
TCTTATGACCACAGATCATCAGTACTGTTGTCTCATGTAATGCTAAAACCTGAAATGGTCCGTGTTTGCATTGTTA
AAAATGATGTGTGAAATAGAATGAGTGCTATGGTGTGAAAACCTGCAGTGTCCGTTATGAGTGCCAAAATCTGT
CTTGAAGGCAGCTACACTTTGAAGTGGTCTTTGAATACTTTAATAAATTTATTTTGATAAATAATATTG

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FIGURE 207

MQSAMFLAVQHDCRPMDKSAGSGHKSEKREKMKRTLLKDWKTRL SYFLQNSSTPGKPKTGKKSKQQAFIKPSPE
EAQLWSEAFDELLASKYGLAAFRFLKSEFCEENIEFWLACEDFKKTKSPQKLSSKARKIYTD FIEKEAPKEINI
DFQTKTLIAQNIQEATSGCFTTAQKRVYSLMENNSYPRFLESEFYQDLCKKPQITTEPHAT

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FIGURE 208

CTGCTCGCGGCCGCCACCGCCGGGCCCCGGCCGTCCCTGGCTCCCCTCCTGCCTCGAGAAGGGCAGGGCTTCTCA
GAGGCTTGGCGGGAAAAAGAACGGAGGGAGGGATCGCGCTGAGTATAAAAGCCGGTTTTTCGGGGCTTTATCTAA
CTCGCTGTAGTAATTCAGCGAGAGGCAGAGGGAGCGAGCGGGCGGCCGGCTAGGGTGGAAGAGCCGGGCGAGCA
GAGCTGCGCTGCGGGCGTCTTGGGAAGGGAGATCCGGAGCGAATAGGGGGCTTCGCCTCTGGCCCAGCCCTCCCG
CTTGATCCCCCAGGCCAGCGGTCCGCAACCCTTGCCGCATCCACGAACTTTGCCCATAGCAGCGGGCGGGCACT
TTGCACTGGAAC TTACAACACCCGAGCAAGGACGCGACTCTCCCGACGCGGGGAGGCTATTCTGCCCATTG GGG
ACACTTCCCCCGCGCTGCCAGGACCCGCTTCTCTGAAAGGCTCTCCTTGCACTGCTTAGACGCTGGATTTTTTT
CGGGTAGTGGAACCAGCAGCCTCCCGCGACG**ATG**CCCCCTCAACGTTAGCTTCACCAACAGGAACATGACCTC
GACTACGACTCGGTGCAGCCGTAATTTCTACTGCGACGAGGAGGAGAACTTCTACCAGCAGCAGCAGCAGAGCGAG
CTGCAGCCCCCGGCGCCAGCGAGGATATCTGGAAGAAATTCGAGCTGCTGCCACCCCGCCCCTGTCCCCTAGC
CGCCGCTCCGGGCTCTGCTCGCCCTCCTACGTTGCGGTACACCCCTTCTCCCTTCGGGGAGACAACGACGGCGGT
GGCGGGAGCTTCTCCACGGCCGACCAGCTGGAGATGGTGACCGAGCTGCTGGGAGGAGACATGGTGAACCAGAGT
TTCATCTGCGACCCGGACGACGAGACCTTCATCAAAAACATCATCATCCAGGACTGTATGTGGAGCGGCTTCTCG
GCCGCCGCAAGCTCGTCTCAGAGAAGCTGGCCTCCTACCAGGCTGCGCGCAAAGACAGCGGCAGCCCCGAACCCC
GCCCCGCGCCACAGCGTCTGCTCCACCTCCAGCTTGACCTGCAGGATCTGAGCGCCGCCGCCTCAGAGTGCATC
GACCCCTCGGTGGTCTTCCCTTACCCTCTCAACGACAGCAGCTCGCCCAAGTCCTGCGCCTCGCAAGACTCCAGC
GCCTTCTCTCCGTCTCGGATTCTCTGCTCTCCTCGACGGAGTCTCCCGCAGGGCAGCCCCGAGCCCCCTGGTG
CTCCATGAGGAGACACCGCCCACCACCAGCAGCGACTCTGAGGAGGAACAAGAAGATGAGGAAGAAATCGATGTT
GTTTCTGTGGAAAAGAGGCAGGCTCCTGGCAAAAGGTCAGAGTCTGGATCACCTTCTGCTGGAGGCCACAGCAAA
CCTCCTCACAGCCCACTGGTCCTCAAGAGGTGCCACGTCTCCACACATCAGCACAACTACGCAGCGCCTCCCTCC
ACTCGGAAGGACTATCCTGCTGCCAAGAGGGTCAAGTTGGACAGTGTGAGAGTCTGAGACAGATCAGCAACAAC
CGAAAAATGCACCAGCCCCAGGTCTCGGACACCGAGGAGAAATGTCAAGAGGCGAACACACAACGTCTTGAGCGC
CAGAGGAGGAACGAGCTAAAACGGAGCTTTTTTGGCCCTGCGTGACCAGATCCCGGAGTTGGAAAACAATGAAAAG
GCCCCCAAGGTAGTTATCCTTAAAAAAGCCACAGCATAACATCCTGTCCGTCCAAGCAGAGGAGCAAAAGCTCATT
TCTGAAGAGGACTTGTTGCGGAAACGACGAGAACAGTTGAAACACAACTTGAACAGCTACGGAACCTTGTGCG
TAAGGAAAAGTAAGGAAAACGATTCTTCTAACAGAAATGTCCTGAGCAATCACCTATGAACTTGTTTCAAATGC
ATGATCAAATGCAACCTCACAACTTGGCTGAGTCTTGAGACTGAAAGATTTAGCCATAATGTAAACTGCCTCAA
ATTGGACTTTGGGCATAAAGAACCTTTTTTATGCTTACCATCTTTTTTTTTTCTTTAACAGATTTGTATTTAAGA
ATTGTTTTTAAAAAATTTTAA

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FIGURE 209

MPLNVSFTNRNYDL DYDSVQPYFYCDEEENFYQQQQSELQPPAPSED IWKKFELLPTPPLSPSRRSGLCSPSYV
AVTPFSLRGDNDGGGGSFSTADQLEMVTELLGGDMVNQSFICDPDDETFIKNII IQDCMWSGFSA AAKLVSEKLA
SYQAARKDSGSPNFPARGHSVCSTSSLYLQDLSAAASECIDPSVVFPYPLNDSSSPKSCASQDSSAFSPSSDSLLS
STESSPQGSPEPLVLHEETPPTTSSDSEEEQEDEEEIDVVSVEKRQAPGKRSESGSPSAGGH SKPPHSPLVLKRC
HVSTHQHNYAAPPSTRKDYPAAKRVKLDSVRVLRQISNNRKCTSPRSSDTEENVKRRTHNVLERQRRNELKRSFF
ALRDQIPELENNEKAPKVVLKKATAYILSVQAEQKLI SEEDLLRKRREQLKHKLEQLRNSCA

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FIGURE 210

GGCAGGCATGGGAGCCGCGCGCTCTCTCCCGGCGCCACACCTGTCTGAGCGGCGCAGCGAGCCGCGGCCCGGGC
GGGCTGCTCGGCGCGGAACAGTGCTCGGCATGGCAGGGATTCCAGGGCTCCTCTTCTTCTTCTTTCTGCTCT
GTGCTGTTGGGCAAGTGAGCCCTTACAGTGCCCCCTGGAAACCCACTTGGCCTGCATACCGCCTCCCTGTCTGT
TGCCCCAGTCTACCCTCAATTTAGCCAAGCCAGACTTTGGAGCCGAAGCCAAATTAGAAGTATCTTCTTCATGTG
GACCCCAGTGTCTAAGGGAACCTCACTGCCCACCTACGAAGAGGCCAAGCAATATCTGTCTTATGAAACGCTCT
ATGCCAATGGCAGCCGCACAGAGACGCAGGTGGGCATCTACATCCTCAGCAGTAGTGGAGATGGGGCCCAACACC
GAGACTCAGGGTCTTCAGGAAAGTCTCGAAGGAAGCGGCAGATTTATGGCTATGACAGCAGGTTCAGCATTTTTG
GGAAGGACTTCTGCTCAACTACCCTTTCTCAACATCAGTGAAGTTATCCACGGGCTGCACCGGCACCCTGGTGG
CAGAGAAGCATGTCCTCACAGCTGCCCACCTGCATACAGATGGAAAAACCTATGTGAAAGGAACCCAGAAGCTTC
GAGTGGGCTTCTTAAAGCCCAAGTTTAAAGATGGTGGTTCGAGGGGGCCAAACGACTCCACTTCAGCCATGCCCCGAGC
AGATGAAATTTCACTGGATCCGGGTGAAACGCACCCATGTGCCCAAGGGTTGGATCAAGGGCAATGCCAATGACA
TCGGCATGGATTATGATTATGCCCTCCTGGAACCTCAAAAAGCCCCACAAGAGAAAATTTATGAAGATTGGGGTGA
GCCCTCCTGCTAAGCAGTGCCAGGGGGCAGAATTCACCTTCTCTGGTTATGACAATGACCGACCAGGCAATTTGG
TGTATCGCTTCTGTGACGTCAAAGACGAGACCTATGACTTGCTCTACCAGCAATGCGATGCCCAGCCAGGGGCCA
GCGGGTCTGGGGTCTATGTGAGGATGTGGAAGAGACAGCAGCAGAAGTGGGAGCGAAAAATTATTGGCATTTTTT
CAGGGCACCAAGTGGGTGGACATGAATGGTTCCCCACAGGATTTCAACGTGGCTGTCAGAATCACTCCTCTCAAA
ATGCCCAGATTTGCTATTGGATTAAAGGAACTACCTGGATTGTAGGGAGGGGTGACACAGTGTTCCCTCCTGGC
AGCAATTAAGGGTCTTCATGTTCTTATTTTAGGAGAGGCCAAATTGTTTTTTGTCATTGGCGTGACACGTGTGT
GT
CTATTTGAAAACCTGGTTTGTGTATCATATCATATATCATTTAAGCAGTTTGAAGGCATACTTTTGCATAGAAATA
AAAAAATACTGATTTGGGGCAATGAGGAATATTTGACAATTAAGTTAATCTTCACGTTTTTGCAAACCTTTGATT
TTTATTTTCTGAACTTGTTCAAAGATTTATATTAAATATTTGGCATACAAGAGATATGA

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FIGURE 211

MAGIPGLLFLFFLLCAVGQVSPYSAPWKPTWPAYRLPVVLPQSTLNLAKPDFGAEAKLEVSSSCGPQCHKGTPL
PTYEEAKQYLSYETLYANGSRTETQVGIIYLSSSGDGAQHRDSGSSGKSRRKRQIYGYDSRFSIFGKDFLLNYPF
STSVKLSTGCTGTLVAEKHVLTAAHCIHDGKTYVKGTQKLRVGFLKPKFKDGGRGANDSTSAMPEQMKFQWIRVK
RTHVPKGWIKGNANDIGMDYDYALLELKKPHKRKFMKIGVSPPAKQLPGGRIHFSGYDNDRPGNLVYRFCDVKDE
TYDLLYQQCDAQPGASGSGVYVRMWKRQQQKWERKIIGIFSGHQWVDMNGSPQDFNVAVRITPLKYAQICYWIKG
NYLDCREG

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FIGURE 212A

GGGACCGACGACACGCCCCCTCTCCTCCTTTGTTCCGGGGGTCGGCGGCCGCTCTCCTGCCAGAGCTCGGGATC
TCGGCCCCGGGAGGCGGGCGCTCGGGCGCAGCCGGAAGATGCCGTTGGAAGTACGCGAGAGCCGAGTGCAGAAG
ATCTGGGTGCCCCGTGGACCACAGGCCCTCGTTGCCAGATCCTGTGGGCCAAAGCTGACCAACTCCCCACCGTC
ATCGTCATGGTGGGCCCTCCCCGCCGGGGCAAGACCTACATCTCCAAGAAGCTGACTCGCTACCTCAACTGGATT
GGCGTCCCCACAAAAGTGTTCACGTCGGGGAGTATCGCCGGGAGGCTGTGAAGCAGTACAGCTCCTACAACCTC
TTCCGCCCCGACAATGAGGAAGCCATGAAAGTCCGGAAGCAATGTGCCTTAGCTGCCTTGAGAGATGTCAAAAGC
TACCTGGCGAAAAGAAGGGGGACAAATTGCGGTTTTTCGATGCCACCAATACTACTAGAGAGAGGAGACACATGATC
CTTCATTTTGGCAAAGAAAATGACTTTAAAGCGTTTTTCATCGAGTCGGTGTGCGACGACCCTACAGTTGTGGCC
TCCAATATCATGGAAGTTAAAATCTCCAGCCCGGATTACAAAGACTGCAACTCGGCAGAAGCCATGGACGACTTC
ATGAAGAGGATCAGTTGCTATGAAGCCAGCTACCAGCCCCCTCGACCCCGACAAATGCGACAGGGACTTGTGCGCTG
ATCAAGGTGATTGACGTGGGCCGGAGGTTCTGGTGAACCGGGTGCAGGACCACATCCAGAGCCGCATCGTGTAC
TACCTGATGAACATCCACGTGCAGCCGCGTACCATCTACCTGTGCCGGCACGGCGAGAACGAGCACAACCTCCAG
GGCCGCATCGGGGGCGACTCAGGCCTGTCCAGCCGGGGCAAGAAGTTTGCCAGTGCTCTGAGCAAGTTCTGTGGAG
GAGCAGAACCTGAAGGACCTGCGCGTGTGGACCAGCCAGCTGAAGAGCACCATCCAGACGGCCGAGGCGCTGCGG
CTGCCCTACGAGCAGTGAAGGCGCTCAATGAGATCGACGCGGGCGTCTGTGAGGAGCTGACCTACGAGGAGATC
AGGGACACCTACCCTGAGGAGTATGCGCTGCGGGAGCAGGACAAGTACTATTACCGCTACCCACCGGGGAGTCC
TACCAGGACCTGGTCCAGCGCTTGGAGCCAGTGATCATGGAGCTGGAGCGGCAGGAGAATGTGCTGGTCACTGTC
CACCAGGCCGTCTGCGCTGCCTGCTTGCCTACTTCTGGATAAGAGTGCAGAGGAGATGCCCTACCTGAAATGC
CCTCTTACACCGTCTGAAACTGACGCTGTGCTTATGGCTGCCGTGTGGAATCCATCTACCTGAACGTGGAG
TCCGTCTGCACACACCGGGAGAGGTGAGAGGATGCAAAGAAGGGACCTAACCCGCTCATGAGACGCAATAGTGTG
ACCCCGCTAGCCAGCCCCGAACCCACCAAAAAGCCTCGCATCAACAGCTTTGAGGAGCATGTGGCCTCCACCTCG
GCCGCCCTGCCAGCTGCCTGCCCCCGAGGTGCCACGCAGCTGCCTGGACAAAACATGAAAGGCTCCCGGAGC
AGCGCTGACTCCTCCAGGAAACACTGAGGCGAGACGTGTGCGTTCCATTCCATTTCCATTTCTGCAGCTTAGCTTG
TGTCTGCCCTCCGCCCGAGGCAAAACGTATCCTGAGGACTTCTTCCGGAGAGGGTGGGGTGGAGCAGCGGGGGA
GCCTTGGCCGAAGAGAACCATGCTTGGCACCGTCTGTGTCCCCTCGGCCGCTGGACACCAGAAAGCCACGTGGGT
CCCTGGCGCCTGCCTTTAGCCTGGGGGCCCCACCTCCACTCTCTGGGTTCTTAGGAATGTCCAGCCTCGGAGAC
CTTCACAAAGCCTTGGGAGGGTGATGAGTGCTGGTCTGACAAGAGGCCGCTGGGGACACTGTCCGTTTTGTTTC
GTTTCTGTGATCTCCCGGCACGTTTGGAGCTGGGAAGACCACACTGGTGGCAGAATCCTAAAATTAAAGGAGGCA
GCCTCCTAGTTGCTGAAAGTTAAGGAATGTGTAACCTCCACGTGACTGTTTGGTGCATCTTGACCTGGGAAGA
CGCCTCATGGGAACGAACCTTGGACAGGTGTTGGGTTGACCCCTCTTCTGCAGGAAGTCCCTGAGCTGAGACGCAA
AGTTGGCTGGGTGGTGGTGGCACCCCTGGCTCCTGCAGGTCCACACACCTTCCAGGCCTGTGGCCTGCCTCCAAA
GATGTGCAAGGGCAGGCTGGCTGCACGGGGAGAGGGAAGTATTTGCCGAAATATGAGAACTGGGGCCTCCTGCT
CCCAGGGAGCTCCAGGGCCCCCTCTCTCCTCCACCTGGACTGGGGGGAAGTGAAGAACACTTCTTGAGCTGC
TGGCTTTTGCACTTTTTTGATGGCAGAAGTGTGACCTGAGAGTCCCACCTTCTCTTCAGGAACGTAGATGTGCGG
GTGTCTTGCCCTGGGGGGCTTGAACCTCTGAAGGTGGGGAGCGGAACACCTGGCATCCTTCCCCAGCACTTGCA
TTACGGTCCCTGCTCTTCCAAGGTGGGGACAGTGGCCCAAGCAAGGCCTCACACGCAGCCACTTCTTCAAGAGCT
GCCTGCACACTGTCTTGGAGCATCTGCCTTGTGCTGGCACTCTGCCGGTGCCTTGGGAAGGTGGTAAGAGTGG
ACTTTGTCTGGGCTTCCCTTCATGGCGTCTAGACACTTTTGTGGTGATGGAAAGCATGGGACCTGTGCTCTCAG
CCTGTTGGTTTCTCTCATTGCCTCAAACCTGGGGTAGGTGGAACGGGGGTCTCGTGCCAGATGAAACCATT
TGGAAACTCGGCAGCAGAGTTTGTCCAAATGACCCTTTTAGGATGTCTCAAAGCTTGTGCCAAAGGTCACTTTT
CTTTCTGCCTTCTGCTGTGAGCCCTGAGATCCTCCTCCAGCTCAAGGGACAGGTCTGGGTGAGGGTGGGAGA
TTTAGACACCTGAAACTGGGCGTGGAGAGAAGAGCCGTTGCTGTTTGTTTTTTGGGAAGAGCTTTTAAAGAATGC
ATATTTTTTTTACCTGGTTGGAATTGAGTAGGAACTGAGGCTGTGCTTACAGGTATGGTACAATCAAGTGGGGGATT
TTCATGCTGAACCCATTCAAAGCCCTCCCCGTCCCCGCATTTCCAGGCCACCCTTTGGCTGGCGTCTGCTGGAGA
GGATGTCTCTGTGCAATCCCGTGCAGCTCAGCTCGCGCAGGTTTTCTCTCTCTCCCTGGATGTTGAGCTCTCAT
CAGAATATGTGGGTGGGGGGTGGACGTGCACGGGTGCATGATTGTGCTTAACTTGGTTGTATTTTTTCGATTTGAC
ATGGAAGCCTGTTGCTTTGCTCTAGAGAATAGTTTCTCGTGTCCCTTCGCACGCCTCATTCTTTGAACCTCATC
TCTGATGTTTGATACAGATGGGGGCTTGATAGCTGTGGTCCCCTTCCCTTCTGACTACGTGAAAATCAATACCT

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FIGURE 212B

AAATACAGAAGCCTTGGTCTAAACACCGAGACTTTTAGTTTGCGAAGGGGCTTAGATAGGGAGAGAGGTAACATG
AATCTGGACAGGGGAGGGAGATACTATAGAAAGGAGAACTGCATACTTTGCAAAGCCAGTGACCTCCTTTTGA
AGGGGACATTGGACGGGGGCCGGGGCGGGGTTTCGGTTTGACTACCGTCATGAACTTTGGCGTATACTGATT
CTCCAACCTCTCCACCCACAAAATAACGGGGACCAATATTTTAACTTTGCCTATTTGTTTTTGGGTGAGTTTCC
CCCCTCCATTATTCTGTCCTGAGACCACGGGCAAAGCTCTTCCATTTGAGAGAGAAGAAAACTGTTTGAACC
ACACCAATGATATTTTTCTTTGTAATACTTGAAATTTATTTTTTTATTATTTTGATAGCAGATGTGCTATTTATT
TATTTAATATATGTATAAGGAGTCCTAAACAATAGAAAGCTGTAGAAGCTGTAGAGATAGGCTTCAGTTGTTAAT
TGGTTTGGAGCCTCCTATGTGTGACTTATGACTCTCTGTGTTCTGTGTATTGTCTGAATTAATGACCTGGGATA
TAAAGCTATGCTAGCTTTCAAACAGGAGATGCCTTCAGAAAGCTTTGTATATTTTGCAGTTGCCAGACCAATAAA
ATACCTGGTTGAAATACATGGACGAAAAAAAAAAAAAAAAAAAAA

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FIGURE 213

MPLELTQSRVQKIWVPVDHRPSLPRSCGPKLTNSPTVIVMVGLPARGKTYISKKLTRYLNWIGVPTKVFNVGEYR
REAVKQYSSYNFFRPDNEEAMKVRKQCALAALRDVKSYLEGEGQIAVFDAINTTRERRHMILHFAKENDFKAFF
IESVCDDPTVVASNIMEVKISSPDYKDCNSAEAMDDFMKRISCYEASYQPLDPDKCDRDLSELIKVIDVGRFLVN
RVQDHIQSRIVYYLMNIHVQPRTIYLCRHGENEHNLQGRIGGDSGLSSRGKKFASALSKFVEEQNLKDLRVWTSQ
LKSTIQTAELRLPYEQWKALNEIDAGVCEELTYEEIRDTYPEEYALREQDKYYYRYPTGESYQDLVQRLEPVIM
ELERQENVLVICHQAVLRCLLAYFLDKSAEMPYLCPLHTVLKLTVPVAYGCRVESIYLNVESVCTHRERSEDAK
KGNPMLMRNSVTPLASPEPTKKPRINSFEEHVASTSAALPSCLPPEVPTQLPGQNMKGRSSADSSRKH

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FIGURE 214

GCGCCGCGGCGCGGAGTCCCGGCTGCGGGATAGACCGAGGGCCATGGCCGCTCTCCCGGACCCGCCGGCGTTGG
CGGCGCCGGAGCAGTCTACGGCTCCGGCTCTTCGGGCTTCGCCCTCGACTCGGGACTGGAGATCAAACTCGCTC
GGTGGAGCAGACGCTACTCCCGCTGGTTTCTCAGATCACCACGCTTATTAATCATAAAGATAATACCAAAAGTC
TGATAAAACTCTGCAAGCAATTACGCGTGTAGGACAAGCTGTCAACTTGGCAGTTGGAAGATTGTAAAGTAGG
AGAAGCTATAGCCAATGAAAAGTGGGATTGAAAGAAGAAATAAATATTGCTTGTATTGAAGCTAAACAAGCAGG
AGAAACAATTGCAGCACTTACAGACATAACCAACTTGAACCATCTGGAATCTGATGGGCAGATCACAAATTTTAC
AGACAAAACAGGAGTGATAAAGGCTGCAAGATTACTTCTTTCTTCAGTGACAAAAGTGTGTGCTGGCAGACCG
AGTAGTCATTAAACAGATAATAACATCAAGAAATAAGGTTCTCGCAACTATGGAAAGACTAGAGAAAGTGAATAG
CTTTCAAGAGTTTGTCCAAATATTAGTCAATTTGGAAATGAAATGGTGGAGTTTGCACATCTGAGTGGAGATAG
ACAAAATGATTTGAAAAGATGAAAAGAAAAGGCAAAAATGGCAGCAGCTAGGGCAGTTCTTGAAAAGTGTACAAT
GATGCTTCTCACAGCTTCAAAGACATGTCTGAGGCATCCTAACTGCGAATCAGCCATAAAAACAAAGAAGGAGT
ATTTGACCGTATGAAAGTGGCATTGGATAAGGTCATTGAAATTGTGACTGACTGTAAACCGAATGGAGAGACTGA
CATTTTCATCTATCAGTATTTTACTGGAATTAAGGAATTCAGATGAATATTGAAGCTCTTCGGGAGAATCTTTA
TTTTAGTCCAAAGAGAACCTTTCTGTGACATTGGAAGTCATCTTGAGCGTATGGAGGACTTTACTGATTCTGC
CTACACCAGCCATGAGCACAGAGAACGCATCTTGGAACTGTCAACTCAGGCGAGAATGGAAGTGCAGCAGTTAAT
TTCTGTGTGGATTCAAGCTCAAAGCAAGAAAACAAAAGCATCGCTGAAGAACTGGAAGTCAAGTATTTGAAAAT
CAGTCACAGTCTTAATGAACTTAAGAAAGAACTTCATAGTACAGCGACACAGCTGGCAGCAGATCTATTAATA
CCATGCTGATCATGTGGTTCTAAAAGCATTAAAGCTTACTGGAGTAGAAGGAAATTTAGAAGCTTTGGCTGAATA
TGCCTGTAACTCTCTGAACAGAAAGAGCAGCTTGTGAGACCTGTCGATTGTTACGACACATATCTGGGACAGA
ACCTCTGGAATAACCTGTATACATGCAGAGGAGACATTTAGGTGACTGGCCAACAGATAATTTCTGCTGCTGA
AACATTGACATTGCATCCATCTAGTAAATTTGCTAAAGAAAACCTAGATGTATTTTGTGAAGCTTGGGAATCCCA
AATTAGTGACATGTCAACACTGCTGAGAGAAATCAATGACGTGTTTGAAGGAAGACGAGGAGAGAAGTATGGCTA
CCTTTCACTTCCAAAGCCAATGAAGAATAATGCAAACCTGAAATCATTAAAGCCAGACAAGCCTGACTCTGAGGA
GCAAGCCAAGATAGCAAAGCTTGGACTTAAGCTGGGTTTGTCTACCTCTGACGCTGACTGCGAAATTGAGAAGTG
GGAAGATCAGGAGAATGAGATTGTTCAATATGGACGGAACATGTCCAGTATGGCCTATTCTCTGATTTTATTAC
TAGAGGAGAGGGGCCACTGAAAACCTCCAGGATTTAATTCATCAACTAGAGTTTTTGTGTCAGAGGGTTTTAAA
GCTTACTTCCAGTGTTCAAGCTTTTTCAAACAGCTGAAAGACGATGACAAGCTTATGCTTCTCCTGGAAATAAA
CAAGCTAATTCCTCTATGCCACCAGCTCCAGACAGTAAGTAAAGCTTCTTGCAGAATAAAGTATTTCTAAAGGT
TGACAAGTGTATTACGAAGACAAGATCCATGATGGCTCTCTTAGTCCAACCTCTTTCACCTTTGTTATAAACTGCT
GAAGAAGCTTCAGATGGAATAACGGATGGGTCTCAGTTACAAATAAGGACACTATGGATAGTAAACTTGAGA
AGCTTTTGGGGTCAGATCTCTGGAACATCATGTGATGAAGCTGACATTTTAAAAATCAAATGATCCTTTATCTT
TTCAGAAATTCATCAATTTTATAAAGAAAACAATATTGAAATTTTGCTCTATTTTCTGATCATGAACTGATTGT
AAAGCTTTTGTGACAACTAATAAATGTCTTGGTAATTGCTAGATTCT

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FIGURE 215

MAASPGPAGVGGAGAVYGS SSGFALDSGLEIKTRSVEQTLLPLVSQITTLINHKDNTKKSDKTLQAIQRVGQAV
NLAVGRFVKVGEAIANENWDLKEEINIACIEAKQAGETIAALTDITNLNHLES DGQITIFTDKTGVIKAARLLLS
SVTKVLLLADRVVIKQIITSRNKVLATMERLEKVNSFQEFVQIFSQFGNEMVEFAHLSGDRQNDLKDEKKKAKMA
AARAVLEKCTMMLLTASKTCLRHPNCESAHKNKEGVFDRMKVALDKVIEIVTDCKPNGETDISSISIFTGIKEFK
MNI EALRENLYFQSKENLSVTLEVILERMEDFTDSAYTSHEHRERILELSTQARMELQQLISVWIQAQSKKTKSI
AEELELSILKISHSLNELKKELHSTATQLAADLLKYHADHVVLKALKLTGVEGNLEALAEYACKLSEQKEQLVET
CRLLRHISGTEPLEITCIHAEETFQVTGQQIISAAETLTLHPSSKIAKENLDVFC EAWESQISDMSTLLREINDV
FEGRRGEKYGYLSLPKPMKNNANLKS LKPDKPDSEEQAKIAKLGLKLGLLTS DADCEIEKWEDQENEIVQYGRNM
SSMAYSLYLFTRGEGPLKTSQDLIHQLEVFAAEG LKLTSSVQAFSKQLKDDDKLMLLLEINKLIPLCHQLQTVTK
TSLQNKVFLKVDKCITKTRSMALLVQLLSLCYKLLKKLQ MENNGWVSVTNKDTMDSKT

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FIGURE 216

CGAGGTTCTGGGTCGTGGGGCGGAGGGAAGAGCGGGCGGGCGGGAGGCGCCGGCGCCAGACGCGGAGGGAAGGAGC
TACGAGTAGCCGCCGAGAGGCCGCGGAGCCAGCGACGACCGACCCAGCCGAGCCGCCGCCGCCGCCGCCA
TGGCGGCCGCCAAGGACACTCATGAGGACCATGATACTTCCACTGAGAATACAGACGAGTCCAACCATGACCCTC
AGTTTGAGCCAATAGTTTCTCTTCTGAGCAAGAAATTAAACACTGGAAGAAGATGAAGAGGAACTTTTAAAA
TGCGGGCAAACTGTTCCGATTTGCCTCTGAGAACGATCTCCAGAATGGAAGGAGCGAGGCACTGGTGACGTCA
AGCTCCTGAAGCACAAAGGAGAAAGGGGCCATCCGCCTCCTCATGCGGAGGGACAAGACCCTGAAGATCTGTGCCA
ACCACTACATCACGCCGATGATGGAGCTGAAGCCCAACGCAGGTAGCGACCGTGCCTGGGTCTGGAACACCCACG
CTGACTTCGCCGACGAGTGCCCCAAGCCAGAGCTGCTGGCCATCCGCTTCCTGAATGCTGAGAATGCACAGAAAT
TCAAAACAAAGTTTGAAGAATGCAGGAAAGAGATCGAAGAGAGAGAAAAGAAAGCAGGATCAGGCAAAAATGATC
ATGCCGAAAAAGTGGCGGAAAAGCTAGAAGCTCTCTCGGTGAAGGAGGAGACCAAGGAGGATGCTGAGGAGAAGC
AATAAATCGTCTTATTTTATTTTCTTTTCTCTCTTCTTCTTTTAAAAAATTTTACCCTGCCCCCTCTT
TTTCGGTTTGTTTTATTCTTTTCAATTTTACAAGGGACGTTATATAAAGAACTGAACTC

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FIGURE 217

MAAAKDTHEDHDTSTENTDESNHDPQFEP IVSLPEQEIKTLEDEEEELFKMRAKLFRFASENDLPEWKERTGDV
KLLKHKEKGAIRLLMRRDKTLKICANHYYITPMELKPNAGSDRAWVWNTHADFADECPKPELLAIRFLNAENAQK
FKTKFEECRKEIEEREKKAGSGKNDHAEKVAEKLEALSVKEETKEDAEKQ

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FIGURE 218A

GTGGGGTGGGGTGGGGCTGGGGGCTTGTGCGCCCTTTCAGGCTCCACCCTTTGCGGAGATTATAAATAGTCATGAT
CCCAGCGAGACCCAGAGATGCCTGTAATGGTGAGACTTTGGATCCTTCCTGAGGACGTGGAGAAAACCTTTCTGCT
GAGAAGGACATTTTGAAGGTTTTGTTGGCTGAAAAAGCTGTTTCTGGAATCACCCCTAGATCTTTCTTGAAGACT
TGAATTAGATTACAGCGATGCGGGGACACAGAAGGTCACCCAGCTCTGATATTTGCCATCACAGTTGCTACAATCG
GCTCTTTCCAATTTGGCTACAACACTGGGGTCATCAATGCTCCTGAGAAGATCATAAAGGAATTTATCAATAAAA
CTTTGACGGACAAGGGAAATGCCCCACCCTCTGAGGTGCTGCTCACGTCTCTCTGGTCCTTGTCTGTGGCCATAT
TTTCCGTCGGGGTATGATCGGCTCCTTTTCCGTCGGACTCTTCGTCAACCGCTTTGGCAGGCGCAATTCAATGC
TGATTGTCAACCTGTTGGCTGTCACTGGTGGCTGCTTTATGGGACTGTGTAAAGTAGCTAAGTCGGTTGAAATGC
TGATCCTGGGTCGCTTGGTTATTGGCCTCTTCTGCGGACTCTGCACAGGTTTTGTGCCCATGTACATTGGAGAGA
TCTCGCCTACTGCCCTGCGGGTGCCTTTGGCACTCTCAACCAGCTGGGCATCGTTGTTGGAATTTCTGGTGGCCC
AGATCTTTGGTCTGGAATTCATCCTTGGGTCTGAAGAGCTATGGCCGCTGCTACTGGGTTTTACCATCCTTCCTG
CTATCCTACAAAGTGCAGCCCTTCCATTTTGGCCTGAAAGTCCCAGATTTTTGCTCATTACAGAAAAGAAGAGG
AGAATGCTAAGCAGATCCTCCAGCGTTGTGGGGCACCCAGGATGTATCCCAAGACATCCAGGAGATGAAAGATG
AGAGTGCAAGGATGTCACAAGAAAAGCAAGTCACCGTGCTAGAGCTCTTTAGAGTGTCCAGCTACCGACAGCCCA
TCATCATTTCCATTGTGCTCCAGCTCTCTCAGCAGCTCTCTGGGATCAATGCTGTGTTCTATTACTCAACAGGAA
TCTTCAAGGATGCAGGTGTTCAAGAGCCCATCTATGCCACCATCGGCGGGGTGTGGTTAATACTATCTTCACTG
TAGTTTTCTCTATTTCTGGTGGAAAGGGCAGGAAGAAGGACTCTGCATATGATAGGCCTTGGAGGGATGGCTTTTT
GTTCCACGCTCATGACTGTTTTCTTTGTTATTAAGGATAACTATAATGGGATGAGCTTTGTCTGTATTGGGGCTA
TCTTGGTCTTTGTAGCCTTCTTTGAAATTGGACCAGGCCCATTCCTGGTTTTATTGTGGCCGAACCTCTTCAGCC
AGGGCCCCCGCCAGCTGCGATGGCAGTGGCCGGCTGCTCCAACCTGGACCTCCAACCTTCCTAGTCGGATTGCTCT
TCCCCTCCGCTGCTCACTATTTAGGAGCCTACGTTTTTATTATCTTCACCGGCTTCCTCATTACCTTCTTGGCTT
TTACCTTCTTCAAAGTCCCTGAGACCCGTGGCAGGACTTTTTGAGGATATCACACGGGCCTTTGAAGGGCAGGCAC
ACGGTGAGATAGATCTGGAAGGACGGCGTCATGGAGATGAACAGCATCGAGCCTGCTAAGGAGACCACCACCA
ATGTCATAAGTCGTGCCCTCCTTCCACCTCCCTCCCGCATGGGAAAGCCACCTCTCCCTCAACAAGGGAGAGACCT
CATCAGGATGAACCCAGGACGCTTCTGAATGCTGCTACTTAATTCCTTTCTCATCCCACGCACTCCATGAGCACC
CCAAGGCTGCGGTTTGTGATCTTCAATGGCTTTTTTAAATTTTATTTCTTGACATCCTCTTCTGCTTAGGAGA
GACCGAGTGAACCTACCTTCATTTAGGAGGGATTGGCCGCTTGGCACATGACAACCTTGCCAGCTTTTCCCTCCC
TTGGGTTCTGATATTGCCGCACTAGGGGATATAGGAGAGGAAAAGTAAGGTGCAGTTCCCCAACCTCAGACTTA
CCAGGAAGCAGATACATATGAGTGTGGAAGCCGGAGGGTGTATGTAAGAGCACCTTCCTCACTTCCATACAGC
TCTACGTGGCAAATTAACCTGAGTTTTATTTATTTTATCCTCTGGTTAATTACATAATTTTTTTTTTTTACTT
TAAGTTTCAGGATACATGTGCCGAATGTGCAGGTTTGTACATAGGTATATATATGCCATGATGGAAATATTTAT
TTTTTTAAGCGTAATTTTGCCAAATAATAAAAACAGAAGGAAATTGAGATTAGAGGGAGGTGTTTAAAGAGAGGT
TATAGAGTAGAAGATTTGATGCTGGAGAGGTTAAGGTGCAATAAGAATTTAGGGAGAAATGTTGTTTCATTATTGG
AGGGTAAATGATGTGGTGCCGAGGTCTGTACGTTACCTCTTAACAATTTCTGTCCTTCAGATGGAAACTCTTTA
ACTTCTCGTAAAAGTCATATACCTATATAATAAAGCTACTGATTTCTTGGAGCTTTTTTCTTTAAGATAATAGT
TTACATGTAGTAGTACTTGAAATCTAGGATTATTAATAATATGGGCATTGTAGTTAATGATGGTTGATGGGTTT
TAATTTTGGATGGAGTCCAGGGAAGAGAAAGTGATTTCTAGAAAGCCTGTTCCCCCTCACTGGATGAAATAACTCC
TTCTTGTAGTAGTCTCATTACTTTTGAAGTAATCCCGCCACCTATCTCGTGGGAGAGCCATCCAAATAAGAAACC
TAAAATAAATTGGTTCTTGGTAGAGATTCATTATTTTTTCCACTTTGTTCTTTAGGAGATTTTAGGTGTTGATTTTC
TGTTGTATTTTAACTCATACCTTTAAAGGAATCCCCAAAGAATGTTTATAGCAAACCTTGAATTTGTAACTCA
GCTCTGGGAGAGGATTTTTTTCTGAGCGATTATTATCTAAAGTGTGTTGTTGCTTTAGGCTCACGGCACGCTTGC
GTATGTCTGTTACCATGTCACTGTGGTCCTATGCCGAATGCCCTCAGGGGACTTGAATCTTTCCAATAAACCAGG
TTTAGACAGTATGAGTCAATGTGCAGTGTAGCCACACTTGAGAGGATGAATGTATGTGCACTGTCACTTTGCTC
TGGGTGGAAGTACGTTATTGTTGACTTATTTTCTCTGTGTTTGTCTCTACAGCCCCTTTTTCATATGTTGCTCAG
TCTCCCTTTCCCTTCTTGGTGCTTACACATCTCAGACCCTTTAGCCAAACCCTTGTCAAGTACAGTATTTTGGTT
CTTAGTTCTCACTGTTCCCTCTGCTCCTGGAGCCTTTGAATAAAAATGCACGTAGCTGAGGCCGGATGCGGTGGC
TCACGCCTGTAATCCCAGCACTTTGGGAGGCCTAGGCGGGCGGTGAGGGTTGAGACCAGTCTGGCCAACATCG
TGAAACCCTGTCTCTACTAAAAATGCAAAAATTAGCCGGGCGTGGTGGCGGGCGCCTGTAATCCCAGCTACTTGG

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FIGURE 218B

GAAGCTGAGGCGGGAGAATCATGTGAACCCGGGACGCAGGGGTTGCAGTGAGCGGAGATCGCATCATTGCACTCT
AGCCTGGGCCACAGGGCGAGACTCCGTCTCAAAAAAAAAAAAAATGCACATAGCTATCGAGTGTGCTTTAGCTTGA
AAAGGTGACCTTGCAACTTCATGTCAACTTTCTGGCTCCTCAAACAGTAGGTTGGCAGTAAGGCAGGGTCCCATT
TCTACTGAGAAGATTGTGAATATTTCCATATGGATTTTCTATTGTTACTCTGGTTCTTTGTTTTAAATAAAAA
TTCTGAATGTACACG

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FIGURE 219

MGTQKVTPALIFAITVATIGSFQFGYNTGVINAPEKIIKEFINKTLTDKGNAPPSEVLLTSLWSLSVAIFSVGGM
IGSFVGLFVNRFGRNSMLIVNLLAVTGGCFMGLCKVAKSVEMLILGRLVIGLFCGLCTGFVPMYIGEISPTAL
RGAFGTNLQLGIVVGILVAQIFGLEFILGSEELWPLLGGFTILPAILQSAALPFCPESPRFLLINRKEEENAKQI
LQRLWGTQDVSQDIQEMKDESARMSQEKQVTVLELFRVSSYRQPIIISIVLQLSQQLSGINAVFYYSTGIFKDAG
VQEPIYATIGAGVVNTIFTVVSFLFLVERAGRRTLHMIGLGGMFCSTLMTVSLLLKDNYNGMSFVCIGAILVFVA
FFEIGPGPIPWFI VAELFSQGPRPAAMAVAGCSNWT SNFLVGLLFPSAAHYLGAYVFIIFTGFLITFLAFTFFKV
PETRGRTFEDITRAFEGQAHGADRSGKDGVMEMNSIEPAKETTTNV

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FIGURE 220A

GTGGGGTGGGGTGGGGCTGGGGGCTTGTCGCCCTTTCAGGCTCCACCCTTTGCGGAGATTATAAATAGTCATGAT
CCCAGCGAGACCCAGAGATGCCTGTAATGGTGAGACTTTGGATCCTTCCTGAGGACGTGGAGAAAACCTTTCTGCT
GAGAAGGACATTTTGAAGGTTTTGTTGGCTGAAAAAGCTGTTTCTGGAATCACCCCTAGATCTTTCTTGAAGACT
TGAATTAGATTACAGCGATGCGGGGACACAGAAGGTCACCCAGCTCTGATATTTGCCATCACAGTTGCTACAATCG
GCTCTTTCCAATTTGGCTACAACACTGGGGTCATCAATGCTCCTGAGAAGATCATAAAGGAATTTATCAATAAAA
CTTTGACGGACAAGGGAAATGCCCCACCCTCTGAGGTGCTGCTCACGTCTCTCTGGTCTTGTCTGTGGCCATAT
TTTCCGTCGGGGGTATGATCGGCTCCTTTTCCGTCGGACTCTTCGTCAACCGCTTTGGCAGGCGCAATTCAATGC
TGATTGTCAACCTGTTGGCTGTCACTGGTGGCTGCTTTATGGGACTGTGTAAAGTAGCTAAGTCGGTTGAAATGC
TGATCCTGGGTCGCTTGGTTATTGGCCTCTTCTGCGGACTCTGCACAGGTTTTGTGCCCATGTACATTGGAGAGA
TCTCGCCTACTGCCCTGCGGGGTGCCTTTGGCACTCTCAACCAGCTGGGCATCGTTGTTGGAATTTCTGGTGGCCC
AGATCTTTGGTCTGGAATTCATCCTTGGGTCTGAAGAGCTATGGCCGCTGCTACTGGGTTTTACCATCCTTCCTG
CTATCCTACAAAGTGCAGCCCTTCCATTTTGGCCTGAAAGTCCAGATTTTGTCTATTAAACAGAAAAGAAGAGG
AGAATGCTAAGCAGATCCTCCAGCGTTGTGGGGCACCCAGGATGTATCCCAAGACATCCAGGAGATGAAAGATG
AGAGTGCAAGGATGTCACAAGAAAAGCAAGTCACCGTGCTAGAGCTCTTTAGAGTGTCCAGCTACCGACAGCCCCA
TCATCATTTCCATTGTGCTCCAGCTCTCTCAGCAGCTCTCTGGGATCAATGCTGTGTTCTATTACTCAACAGGAA
TCTTCAAGGATGCAGGTGTTCAAGAGCCCATCTATGCCACCATCGGCGCGGGTGTGGTTAATACTATCTTCACTG
TAGTTTTCTCTATTTCTGGTGGAAAGGGCAGGAAGAAGGACTCTGCATATGATAGGCCTTGGAGGGATGGCTTTTT
GTTCCACGCTCATGACTGTTTTCTTTGTTATTAAAGGATAACTATAATGGGATGAGCTTTGTCTGTATTGGGGCTA
TCTTGGTCTTTGTAGCCTTCTTTGAAATTGGACCAGGCCCATTCCTGGTTTTATTGTGGCCGAACCTCTTCAGCC
AGGGCCCCCGCCAGCTGCGATGGCAGTGGCCGGCTGCTCCAACCTGGACCTCCAACCTCCTAGTCGGATTGCTCT
TCCCCCTCCGCTGCTCACTATTTAGGAGCCTACGTTTTTATTATCTTCACCGGCTTCCTCATTACCTTCTTGGCTT
TTACCTTCTTCAAAGTCCCTGAGACCCGTGGCAGGACTTTTGAGGATATCACACGGGCCTTTGAAGGGCAGGCAC
ACGGTGCAGATAGATCTGGAAGGACGGCGTCATGGAGATGAACAGCATCGAGCCTGCTAAGGAGACCACCACCA
ATGTCTAAAGTCGTGCCCTCCTTCCACCTCCCTCCCGCATGGGAAAGCCACCTCTCCCTCAACAAGGGAGAGACCT
CATCAGGATGAACCCAGGACGCTTCTGAATGCTGCTACTTAATTCCTTTCTCATCCACGCACTCCATGAGCACC
CCAAGGCTGCGGTTTGTGGATCTTCAATGGCTTTTTAAATTTTATTTCCTGGACATCCTCTTCTGCTTAGGAGA
GACCGAGTGAACCTACCTTCATTTTCAAGAGGGATTGGCCGCTTGGCACATGACAACCTTGGCAGCTTTTCTCC
TTGGGTTCTGATATTGCCGCACTAGGGGATATAGGAGAGGAAAAGTAAGGTGCAGTTCCCCAACCTCAGACTTA
CCAGGAAGCAGATACATATGAGTGTGGAAGCCGGAGGGTGTATGTAAGAGCACCTTCCTCACTTCCATACAGC
TCTACGTGGCAAATTAACCTGAGTTTTATTTATTTATCTCTGGTTAATTACATAATTTTTTTTTTTTACTT
TAAGTTTCAAGGATACATGTGCCGAATGTGCAGGTTTGTTACATAGGTATATATATGCCATGATGGAAATATTTAT
TTTTTTAAGCGTAATTTTGCCAAATAATAAAAACAGAAGGAAATTGAGATTAGAGGGAGGTGTTTAAAGAGAGGT
TATAGAGTAGAAGATTTGATGCTGGAGAGGTTAAGGTGCAATAAGAATTTAGGGAGAAATGTTGTTTCAATTATTG
AGGGTAAATGATGTGGTGCCCTGAGGTCTGTACGTTACCTCTTAACAATTTCTGTCTTCAGATGGAAACTCTTTA
ACTTCTCGTAAAAGTCATATACCTATATAATAAAGCTACTGATTTCCCTGGAGCTTTTTTCTTTAAGATAATAGT
TTACATGTAGTAGTACTTGAAATCTAGGATTATTAATAATATGGGCATTGTAGTTAATGATGGTTGATGGGTTT
TAATTTTGGATGGAGTCCAGGGAAGAGAAAGTGATTTCTAGAAAAGCCTGTTCCCCCTCACTGGATGAAATAACTCC
TTCTTGTAGTAGTCTCATTACTTTTGAAGTAATCCCGCCACCTATCTCGTGGGAGAGCCATCCAAATAAGAAACC
TAAAATAAATTGGTTCTTGGTAGAGATTCATTATTTTTTCCACTTTGTTCTTTAGGAGATTTTAGGTGTTGATTTTC
TGTTGTATTTTAACTCATACCTTTAAAGGAATTCCTCAAGAAATGTTTATAGCAAACCTGGAATTTGTAACCTCA
GCTCTGGGAGAGGATTTTTTTCTGAGCGATTATTATCTAAAGTGTGTTGTTGCTTTAGGCTCACGGCACGCTTGC
GTATGTCTGTTACCATGTCACTGTGGTCCATGCCGAATGCCCTCAGGGGACTTGAATCTTTCCAATAAACCAGG
TTTAGACAGTATGAGTCAATGTGCAGTGTAGCCACACTTGAGAGGATGAATGTATGTGCACTGTCACTTTGCTC
TGGGTGGAAGTACGTTATTGTTGACTTATTTTCTCTGTGTTTGTCTCTACAGCCCTTTTTTCATATGTTGCTCAG
TCTCCCTTTCCCTTCTTGGTGCTTACACATCTCAGACCCTTTAGCCAAACCCTTGTCAGTGACAGTATTTTGGTT
CTTAGTTCTCACTGTTCCCTCTGCTCCTGGAGCCTTTGAATAAAAATGCACGTAGCTGAGGCCGGATGCGGTGGC
TCACGCCTGTAATCCCAGCACTTTGGGAGGCCTAGGCGGGCGGTGAGGGTTTCGAGACCAGTCTGGCCAACATCG
TGAAACCCTGTCTCTACTAAAAATGCAAAAATTAGCCGGGCGTGGTGGCGGGCGCCTGTAATCCCAGCTACTTGG

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FIGURE 220B

GAAGCTGAGGCGGGAGAATCATGTGAACCCGGGACGCAGGGGTTGCAGTGAGCGGAGATCGCATCATTGCACTCT
AGCCTGGGCCACAGGGCGAGACTCCGTCTCAAAAAAAAAAAAAATGCACATAGCTATCGAGTGTGCTTTAGCTTGA
AAAGGTGACCTTGCAACTTCATGTCAACTTTCTGGCTCCTCAAACAGTAGGTTGGCAGTAAGGCAGGGTCCCATT
TCTCACTGAGAAGATTGTGAATATTTCCATATGGATTTTCTATTGTTACTCTGGTTCTTTGTTTTAAATAAAAA
TTCTGAATGTACACG

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FIGURE 221

MGTQKVTPALIFAITVATIGSFQFGYNTGVINAPEKIIKEFINKTLTDKGNAPPSEVLLTSLWSLSVAIFSVGGM
IGSFSVGLFVNRFGRNSMLIVNLLAVTGGCFMGLCKVAKSVEMILGRLVIGLFCGLCTGFVPMYIGEISPTAL
RGAFGTNLQLGIVVGILVAQIFGLEFILGSEELWPLLLGFTILPAILQSAALPFCPESPRFLLINRKEEENAKQI
LQRLWGTQDVSQDIQEMKDESARMSQEKQVTVLELFRVSSYRQPIIISIVLQLSQQLSGINAVFYYSTGIFKDAG
VQEPIYATIGAGVVNTIFTVVSFLVERAGRRTLHMIGLGMAFCSTLMTVSLLLKDNYNGMSFVCIGAILVFVA
FFEIGPGPIPWFI VAELFSQGPRPAAMAVAGCSNWT SNFLVGLLFPSAAHYLGAYVFIIFTGFLITFLAFTFFKV
PETRGRTFEDITRAFEGQAHGADRSGKDGVMEMNSIEPAKETTTNV

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FIGURE 222

GTGAAACACCCCTCGGCTGGGAAGTCAGTTCGTTCTCTCCTCTCCTCTCTTCTTGTGTTGAACATGGTGCGGACTAA
AGCAGACAGTGTTCCAGGCACTTACAGAAAAGTGGTGGCTGCTCGAGCCCCCAGAAAGGTGCTTGGTTCTTCCAC
CTCTGCCACTAATTCGACATCAGTTTCATCGAGGAAAGCTGAAAATAAATATGCAGGAGGGAACCCCGTTGCGT
GCGCCCAACTCCCAAGTGGCAAAAAGGAATTGGAGAATTCTTTAGGTTGTCCCCTAAAGATTCTGAAAAAGAGAA
TCAGATTCCTGAAGAGGCAGGAAGCAGTGGCTTAGGAAAAGCAAAGAGAAAAGCATGTCCTTTGCAACCTGATCA
CACAAATGATGAAAAAGATAGAACTTTCTCATTTCATCTTTGAATAACGTCTCCTTGTTTACCCTGGTATTCTAG
AATGTAAATTTACATAAATGTGTTTGTTCGAATTAGCTTTGTTGAACAGGCATTTAATTAAAAAATTTAGGTTTA
AATTTAGATGTTCAAAAGTAGTTGTGAAATTTGAGAATTTGTAAGACTAATTATGGTAACTTAGCTTAGTATTCA
ATATAATGCATTGTTTGGTTTCTTTTACCAAATTAAGTGTCTAGTTCTTGCTAAAATCAAGTCATTGCATTGTGT
TCTAATTACAAGTATGTTGTATTTGAGATTTGCTTAGATTGTTGTACTGCTGCCATTTTTATTGGTGTGTTGATTA
TTGGAATGGTGCCATATTGTCACTCCTTCTACTTGCTTTAAAAAGCAGAGTTAGATTTTTGCACATTAAAAAATT
CAGTATTAATT

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FIGURE 223

MVRTKADSVPGTYRKVVAARAPRKVLGSSTSATNSTSVSSRKAENKYAGGNPVCVRPTPKWQKGIGEFFRLSPKD
SEKENQIPEEAGSSGLGKAKRKACPLQPDHTNDEKE

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FIGURE 224A

CGGACGCGTGGGAACGAAGCCACCCATTACGGTATGATGATGTCAAACGTGATGCTGATGCTACAGTTACAGCCC
 CTGCTGGCGCAGCCTCTCTGATTCTCTCTCCCTCTCCGCGTCCAGTGCTGGGCTTTTTCAGACAAGTGCATCTCC
 TAACCAGGTACATTTTCAGCCGCGACCCACTCTCCGCCAGTCACCGGAGGCAGACCGCGGGAGGAGAGCTGAGGA
 CAGCCGCGTGCGCTTCGCCAGCAGCGGGGTGGGAGGAAGGACATTAAATACTGCAGAAGTCAAGACCCCCCAGG
 TCGAACCAGACACGATGCGCGCCCCGGGCTGCGGGCGGCTGGTGCTGCCGCTGCTGCTCCTGGCCGCGGCAGC
 CCTGGCCGAAGGCGACGCCAAGGGGCTCAAGGAGGGCGAGACCCCCGGCAATTTTCATGGAGGACGAGCAATGGCT
 GTCGTCCATCTCGCAGTACAGCGGCAAGATCAAGCACTGGAACCGCTTCCGAGACGAAGTGGAGGATGACTATAT
 CAAGAGCTGGGAGGACAATCAGCAAGGAGATGAAGCCCTGGATACCAAGGACCCCTGCCAGAAGGTGAAGTG
 CAGCCGCCACAAGGTGTGCATTGCCAGGGCTACCAGCGGGCCATGTGCATCAGTCGCAAGAAGCTGGAGCACAG
 GATCAAGCAGCCGACCGTGAACTCCATGGAAACAAAGACTCCATCTGCAAGCCCTGCCACATGGCCCAGCTTGC
 CTCTGTCTGCGGCTCAGATGGCCACACTTACAGCTCTGTGTGTAAGCTGGAGCAACAGGCGTGCCTGAGCAGCAA
 GCAGCTGGCGGTGCGATGCGAGGGCCCCCTGCCCCCTGCCCCACGGAGCAGGCTGCCACCTCCACCGCCGATGGCAA
 ACCAGAGACTTGACCCGCTCAGGACCTGGCTGACCTGGGAGATCGGCTGCGGGACTGGTTCAGCTCCTTCATGA
 GAACTCCAAGCAGAATGGCTCAGCCAGCAGTGTAGCCGGCCCCGGCCAGCGGGCTGGACAAGAGCCTGGGGGCCAG
 CTGCAAGGACTCCATTGGCTGGATGTTCTCCAAGCTGGACACCAGTGCTGACCTCTTCTGGACCAGACGGAGCT
 GGCCGCCATCAACCTGGACAAGTACGAGGTCTGCATCCGTCCCTTCTTCAACTCCTGTGACACCTACAAGGATGG
 CCGGGTCTCTACTGCTGAGTGGTGCTTCTGCTTCTGGAGGGAGAAGCCCCCTGCCTGGCAGAGCTGGAGCGCAT
 CCAGATCCAGGAGGCCGCCAAGAAGAAGCCAGGCATCTTCATCCCGAGCTGCGACGAGGATGGCTACTACCGGAA
 GATGCAGTGTGACCAGAGCAGCGGTGACTGCTGGTGTGTGGACCAGCTGGGCTGGAGCTGACTGGCACGCGCAC
 GCATGGGAGCCCCGACTGCGATGACATCGTGGGCTTCTCGGGGGACTTTGGAAGCGGTGTGCGCTGGGAGGATGA
 GGAGGAGAAGGAGACGGAGGAAGCAGGCGAGGAGGCCGAGGAGGAGGAGGCGAGGCAGGCGAGGCTGACGACGG
 GGGCTACATCTGGTAGACGCCCTCAGAAGCCGGCTGCGGGGGGGGACTCAACAGCAGAGCTCTGAGCAGCAGCAG
 GCAACTTCGAGAACGGATCCAGAAATGCAGTCAGAAGGACCCTGCTCCACCTGGGGGGGACTGGGAGTGTGAGTGT
 GCATGGCATGTGTGTGGCACAGATGGCTGGGACGGGTGACAGTGTGAGTGCATGTGTGCATGCATGTGTGTATGT
 GTGTGTGTGTGTGGCATGCGCTGACAAATGTGTCTTGATCCACACTGCTCCTGGCAGAGTGAGTAACCCAAAGG
 CCCCTTCGGCCTCCTTGATGCTGTTTTCTTTCTTTTGTGTTGGTTTTTAAATACATTACACACAAATACAAA
 TTGACAGGTCAAAATCCATGAAATGAGATCCCCAGCCGTGTCCTCCAGCCAGCCCTGACCCCTTGGTTTCTAC
 CCTGGCTCCCCCTTGGTTTCTACCTGGCTCAACCGACCCCTGTCTGCCCTTCTCCCTCCTGCTTCTGAGGTCAAG
 CTCTGGCCTGCGAGCCTGTCCCCATTGCAAAGGGGAGGGAGGGGAGGGAGCTGTCTACCAGCTGAGGTCTCTCC
 AAACTGGGCCGATGTGGTGTGACATCCCCACCAGCCTCAGATGAGACGGGCCAGGACGCCACAGCCACAGCAAGC
 CCTGTCCCTTTGCCGGATCCCCAAACACTAGAGAAGCTCTCCTAACCCAAGGCGGAGAATGAAGGTGGTGGCGGC
 AGAGGAGGAGGGCAGCAGCTGAGAGGCCAGGGACAGGGTGCCCTCGCCAAGCTGTCTGAGGTCTGTCCCAGGTGGC
 CCAGGTGGTGCAGGTAGAACAGGGTGAGGAGAGGGGTGGCTCAACAGGAGGAGGCTGTGGCTGCAGAGCCTGG
 AGGAGCTTTTAGGTGTTGAGATGGGGCAGCTCTGAATCCTAGACCCTGGAATAGCCTGTCCCTTTTCTCTGGGTC
 TCGTGGTGGAGCCATGATCTGGGCTGCTCTCTTGGGGACACTGGGTGGTGGTTACACAGTTGACCTCTGCCTGGC
 TCCCCCTTGGTGCAACTCCTGCCTCCATCCCCCTTGCTGGGGTCCCCCTCATCCACTTGAGGGCGCCTGAGGGCCA
 GGAGCAGCAGGCAAGGAGCCTGGGTCTAGGCTAAGGGGTGTGTGCCACCTCCTCCCTGACCCTTAACACTCCT
 GTCCTGCCCAGACCAACAGAGAGAGCTGTCCCTGAGACCCCGGAGAGAAGCAGCTGCCGAAAGCTGCAGCCTTTC
 CGCACTCTGAGACCATGATCTTCTCCTGCCAGGGGAGAGCCACCCACAGGCCATGTCCAGCCCCACTTCCCTCA
 GCCCCAGGGCTTCTTCTGGCCCCCTCTGAGGATTCCCTAGGGGTGCCCCGAGAGGGGCTTCCCCAAGCTCTGT
 TTTGAAGCCTGCAATGTGGAAAAAGTGAGAAGTCAGAGGGAACAGGACAGGTGCAGCCGGGCTCTGAGGCCACACC
 TCACACCTCGCTGTTCCCCAACATCCCCCTGAGCAGTGTGAGCTCATCTCACCAGATGAGAAGAGGCCCTGTGCAT
 TTCTTTTGTGTTGTTGTTGCTGTTTTCCCCCACCCATCCAGTTCTCCTCAGCAAAGCAAATTCCTTAACACCTTT
 GGTGGAGAATTTCTTACCCAGACTTGGGGCTGTGATGCCCTTCAGTGCGTGGTGAGTGCAGCGTGTGTGCGTGTG
 CCTGTGTGTGAACCTGGGGGCCATCCTGGTGGCCTGGGAGCGTGAGGAGAGGGCCCCCTGTGTGCTGGGTGAGTGG
 TGGGTGTGGGGTCAATGCAGTGAGGCTCTCTGGGTGAGGCTCCCAACCTGGCAGTCCCCAGCCTCCAGCATCTG
 TGAGCGTCTGTTGGACTTTACAGAAGAGCCTCATCCCGTCTGCCCCCTCACTCTGCCCTGGAATCAACATCTTCCG
 AGTCCTTCTTGGGGGAAATAGCAGAGCCCCACTTAACCTCATAAACTGCTTCCCATTCGCGAGCCAGTTCTGAT

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FIGURE 224B

TGTTGAGGTGTCGCGTCGTTCCAGGTCCCCAGTCCCCTCTTTCTCCTGTCCTCTCTCTGTCCTTCACCTCCCCA
CTCCAGCCCCGGCTCAGTTCAGGGAAATGCTGTTCCATATCAGCCCTCTGCTCTCTGAGGCAGCCGCGCCTCTGA
CTCGGAGCTACTTGAAACTTCTGCTCTTGCTAGGATTGGAGTCTACCTATCTCTTCCATTTGTCCCAGCTGGAGT
TCTGGAACTTTCTCCTCGGGGTGGGGGTGGGGGTGTTAAGGATGCTGGGGGGCCTGGGGAAGGAAGGAGTTCA
GAGGAAGGGTGTCCCCTGTCTCTTGATGTCACCCTCCGCTCCTGGGACACGTGCTCTCTCTGTCTCTGGGTCTT
CTGGCTGTGCACGTTTGTGTGTCTTGTAAATATGTTTTAGGAAGAAAGCAAAAGGGACTGAACTAGCCTCTGGT
AGGATTGCAGGGGTCCAGCCTTGCTGTTTCCGAAGCCCCACACTGCCTTTCGCCCCACTGAGACTGGTCCCCT
CAAAAGGTAGACAAAACAGCAGCTCCCTGTGGAGCTGAAGGGCGGCCTCAAAGTGGCTTTTTGTTAGACAAGGTT
AAGGTTTCTCATGAGCAAGGTTGCAGATCGGTCTTCTCAGCTCCTTGATTTGTGACCTTGACCAAGGGGCCT
GCCACCCAGCCCCCTCCAGTGCCCTCTCCTCGATGCCTCGCTCCTTCTGCCCCCACTCCCCTGGCTTAGGCAGGT
AGGGGAATTAGGGCCATGCTGGAAGAAGCTTAACCATGTGTTCAAAGAACGGTTTTCTTGCTTGCTTGGTCCTGGA
ACTCCCCCTTGCTGCCCCAGGCCTCCTTGCCCCATGGGTGCTGGGGGAGGTGGATGTCAGATCTGGTAGGTTGCA
GCAGAGAAAATAAATGTGCCTTGAGAGACCACTCAGAGAGGGTCCAAGGGTGATGGAGAAGGAAGCATGGCCTGG
GAGCTTGGAAGGGAGGGGTGGTGGGTGGCGGCATCTTGACTGCCCCCTGTTGTCCACACAGTGGGGGTGGTCAC
CCCCCTTCACTCCAGCCCGCCTGCCTTCAGCCTTCCATGAGCTTCACCTGCTTCCAACCTTCACTTTGGAGGGGT
GGGTCCGTTGGCATCAACACGGGGACCCTCTGCTTACCAAAGCCCGAGCCCTCAGCCCTGGGGAGAACAAT
GGCTGAGCTTTGATACCTGGGGTCGTCGAGAGGCTGCGGGCTGGCGGCAGTCCAGGGGAGAGACACCACAGAAG
GAGACCCAGACATCCCGAGGAAGTCCCAGCAGAGCAAAGTCTTCCAGCCTGAAGCCTGCTTAAACTGTGTGA
TGTGCAATAACTGAGCTTAGAGTTAGGAATTGTGTTCAAGTGCTTGGATTTCCGTCTGTAGATTTAACTGCTGAA
ATTGTATCTCTCAGTAATTTTAGATGTCTTTAAAAAATTGAAAAACAAAGTGTTAGACTGTGTGCGTGTGCGTT
GATGGGCACTCAAGAGTCCCGTGAGTCATCCAGCCCTGCCTTTCCTTGCGCCCCATCCTCTCACGTCCCGCCC
TGCCTCCACTTGGGGACCCTGCCTCGTGTGCTCTTTATCTGCCTATTACTCAGCCTAAGGAAACAAGTACACTCC
ACACATGCATAAAGGAAATCAAATGTTATTTTTAAGAAAATGGAAAATAAAAACTTTATAAACACC

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FIGURE 225

MRAPGCGRLVLPLLLLAAAAALAEGLKEGETPGNFMEDEQWLSSISQYSGKIKHWNFRDEVEDDYIKSWED
NQQGDEALDTTKDPQCQVKCSRHKVCIAQGYQRAMCISRKLEHRIKQPTVKLHGKNKDSICKPCHMAQLASVCGS
DGHTYSSVCKLEQQACLSSKQLAVRCEGPCPCPTEQAATSTADGKPETCTGQDLADLGDRLRDWFQLLHENSQN
GSASSVAGPASGLDKSLGASCKDSIGWMFSKLDTSADLFLDQTELAALNDKYEVCIRPFFNSCDTYKDGRVSTA
EWCFCFWREKPPCLAELERIQIQEAARKKPGIFIPSCDEDEGYRKMQCDQSSGDCWCVDQLGLELTGTRTHGSPD
CDDIVGFSGDFGSGVGWEDEEEKETEEAGEEAEEEGEAGEADDGGYIW

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FIGURE 226A

TTCCGGTGGCCTCTAGTGAGATCTGGAGGATCCAAGGATTCTGTAGCTACA**ATG**TTGTCAAGACTTTTTTCGAATGC
ATGGCCTCTTTGTGGCCTCCCATCCCTGGGAAGTCATAGTGGGGACAGTGACACTGACCATCTGCATGATGTCCA
TGAACATGTTTACTGGTAACAATAAGATCTGTGGTTGGAATTATGAATGTCCAAAAGTTTGAAGAGGATGTTTTGA
GCAGTGACATTATAATTCTGACAATAACACGATGCATAGCCATCCTGTATATTTACTTCCAGTTCCAGAATTTAC
GTCAACTTGGATCAAAATATATTTGGGTATTGCTGGCCTTTTCACAATTTTCTCAAGTTTGTATTTCAGTACAG
TTGTCAATTCATTCTTAGACAAAGAATTGACAGGCTTGAATGAAGCTTTGCCCTTTTCTACTTTTGATTGACC
TTTCCAGAGCAAGCACATTAGCAAAGTTTGCCCTCAGTTCCAACCTCACAGGATGAAGTAAGGGAAAATATTGCTC
GTGGAATGGCAATTTTAGGTCTACGTTTACCCTCGATGCTCTTGTGAATGTCTTGTGATTGGAGTTGGTACCA
TGTCAGGGGTACGTCAGCTTGAAATTATGTGCTGCTTTGGCTGCATGTCAGTTCTTGCCAACTACTTCGTGTTCA
TGACTTTCTTCCAGCTTGTGTGTCCTTGGTATTAGAGCTTTCTCGGGAAAGCCGCGAGGGTCGTCCAATTTGGC
AGCTCAGCCATTTTGCCCGAGTTTGAAGAAGAAGAAAATAAGCCGAATCCTGTAACCTCAGAGGGTCAAGATGA
TTATGTCTCTAGGCTTGGTTCTTGTTCATGCTCACAGTCGCTGGATAGCTGATCCTTCTCCTCAAAACAGTACAG
CAGATACTTCTAAGGTTTTCATTAGGACTGGATGAAAATGTGTCCAAGAGAATTGAACCAAGTGTTTCCCTCTGGC
AGTTTTATCTCTCTAAAATGATCAGCATGGATATTGAACAAGTTATTACCCTAAGTTTAGCTCTCCTTCTGGCTG
TCAAGTACATCTTCTTTGAACAAACAGAGACAGAATCTACACTCTCATTAAAAAACCTATCACATCTCCTGTAG
TGACACAAAAGAAAGTCCCAGACAATTGTTGTAGACGTGAACCTATGCTGGTCAGAAATAACCAGAAATGTGATT
CAGTAGAGGAAGAGACAGGGATAAACCGAGAAAGAAAAGTTGAGGTTATAAAACCCTTAGTGGCTGAAACAGATA
CCCCAAACAGAGCTACATTTGTGGTTGGTAACCTCTCCTTACTCGATACTTCATCAGTACTGGTGACACAGGAAC
CTGAAATTGAACCTCCAGGGAACCTCGGCCTAATGAAGAATGTCTACAGATACTTGGGAATGCAGAGAAAGGTG
CAAAATTCCTTAGTGATGCTGAGATCATCCAGTTAGTCAATGCTAAGCATATCCAGCCTACAAGTTGGAAACTC
TGATGGAACTCATGAGCGTGGTGTATCTATTCCGCGACAGTTACTTTCCAAGAAGCTTTCAGAACCTTCTTCTC
TCCAGTACCTACCTTACAGGGATTATAATTACTCCTTGGTGATGGGAGCTTGTGTGAGAATGTTATTGGATATA
TGCCCATCCCTGTTGGAGTGGCAGGACCCCTTTGCTTAGATGAAAAAGAATTTAGGTTCCAATGGCAACAACAG
AAGGTTGTCTTGTGGCCAGCA**CCA**ATAGAGGCTGCAGAGCAATAGGTCTTGGTGGAGGTGCCAGCAGCCGAGTCC
TTGCAGATGGGATGACTCGTGGCCAGTTGTGCGTCTTCCACGTGCTTGTGACTCTGCAGAAGTGAAAGCCTGGC
TCGAAACATCTGAAGGGTTTCGCAGTGATAAAGGAGGCATTTGACAGCACTAGCAGATTGTCACGTCTACAGAAAC
TTCATACAAGTATAGCTGGACGCAACCTTTATATCCGTTTCCAGTCCAGGTCAGGGGATGCCATGGGGATGAACA
TGATTTCAAAGGGTACAGAGAAAGCACTTTCAAAACTTCACGAGTATTTCCCTGAAATGCAGATTCTAGCCGTTA
GTGGTAACTATTGTACTGACAAGAAACCTGCTGCTATAAATTGGATAGAGGGAAGAGGAAAATCTGTTGTTTGTG
AAGCTGTCAATCCAGCCAAGGTTGTGAGAGAAGTATTAAAGACTACCACAGAGGCTATGATTGAGGTCAACATTA
ACAAGAATTTAGTGGGCTCTGCCATGGCTGGGAGCATAGGAGGCTACAACGCCCATGCAGCAAACATTGTCACCG
CCATCTACATTGCCTGTGGACAGGATGCAGCACAGAATGTTGGTAGTTCAAACGTATTACTTTAATGGAAGCAA
GTGGTCCCACAAATGAAGATTTATATATCAGCTGCACCATGCCATCTATAGAGATAGGAACGGTGGGTGGTGGGA
CCAACCTACTACCTCAGCAAGCCTGTTTGCAGATGCTAGGTGTTCAAGGAGCATGCAAAGATAATCCTGGGGAAA
ATGCCCGGCAGCTTGCCCGAATTGTGTGTGGGACCGTAATGGCTGGGGAATTGTCACTTATGGCAGCATTGGCAG
CAGGACATCTTGTCAAAAGTCACATGATTCAACACAGGTCGAAGATCAATTTACAAGACCTCCAAGGAGCTTGCA
CCAAGAAGACAGCC**TGA**ATAGCCCGACAGTTCTGAACCTGGAACATGGGCATTGGGTTCTAAAGGACTAACATAAA
ATCTGTGAATTAAGGCTCAATGCATTGCTTGTGGAGGATGAATAAATGTGATCACTGAGACAGCCACTTGG
TTTTTGGCTCTTTCAGAGAGGTCTCAGGTTCTTTCCATGCAGACTCCTCAGATCTGAACACAGTTTAGTGCTTTA
CATGCTGTGCTCTTTGAAGAGATTTCAACAAGAATATTGTATGTTAAAGCATCAGAGATGGTAATCTACAGCTCA
CCTCTGAAAGCAAAATATAAGCTGGGAAAAAAGTTTTGATGAAATTCCTGAAGTTTATGGTGATCAGTGCAATTGA
CCTTCTCCCTCACTCCTGCCAGTTGAAAATGGATTTTTAAATTATACTGTAGCTGATGAAACTCCTGATTTTGTA
GTTAATTTATTAAGTCTGGGATGTAGA**ACTT**CAAGAAGTAAGAGCTAAGTTCTAAGTTTATGTTTGTAATTAAT
ACTTCATTTGGTGCTGGTCTATTTTGATTTTGGGGGGTAATCAGCATTATTCTTCAGAAGGGGACCTGTTTTCTT
CAAGGGAAGAAACACTCTTATTCCCAAACCTACAGAATAATGTGTTAAACATGCTAAATAGTTCTATCAGGAAAC
AAATCACTGTATTTATCTCCGAGGCTATTTGTTTCAAGAGAGGCTTTTGTTTAAATATAAATGTTTAAATATAAA
TGTTTGTCTGGATTGGCTATAACATGTCTTTCAGCATTAGGCTTTTAAAGAAACACAGGGTTTTGTATTCTTTACT
AAAGATATCAGAGCTCTTAATGTTGCTTAGATGAGGGTGACTGTCAAGTACAAGCAAGACTGGGACCTTAGAAAT

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FIGURE 226B

CATTGTAGAAACACAGTTTTGAAAGATTTTTACCATGTCTCTAAGCCAACTTTAATTGCTTAAAAGACATTTT
 TTTAGTTGAAAAATCTAGTTTTTTTTGTAACTGTACCAAATCTGTATATGTTGTAATAAACTTATGCTAGTTT
 ATTGGAAGTGTTCAAGAAATAAAAAATCAACTTGTGTACTGATAAAATACTCTAGCCTGGGCCAGAGAAGATAATG
 TTCTTTAATGTTGTCAGGAAACCTGGCTTGCTTGCCGAGCCTAATGAAAGGGAAAGTCAGCTTTCAGAGCCAGT
 GAAGGAGCCACGTGAATGGCCCTAGAAGTGTGCCTAGTTCTGTGGCCAGGAGGTTGGTGACTGAAACATTCACA
 CAGGGCTCTTGATGGACCCACGAACGCTCTTAGCTTCTCAGGGGGTCAGCAGAGTTATTGAATCTTAATTTTT
 TTTAATGTACAAGTTTTGTATAAATAATAAAGAACTCCTTATTTTGTATTACATCTAATGCTTAAGTGTGCTCT
 TGGAAAGCTGATGATGTCTCTTGTAGAGATGACTCTGAAAAACATTCCAGGAAACCATGGCAGCATGGAGAGCCT
 CTTAGTGATTGTGTCTGCATTGTTATTGTGGAAGATTTACCTTTTTCTGTTGTACGTAAAGCTTAAATTACTTTTG
 TTGIGACTTTTTAGCCAGTGACTTTTTCTGAGCTTTTCATGGAAGTGGCAGTGAAAAATATGTTGAGTGTTCAA
 AAAGTGACTGTAATTAATATCTTGCTGGATTAATGTTTTGTACAATTACTAAATTGTATACATTTTGTATAGAA
 TACTTTTTCTAGTTTCAGTAAATAATGAAAAGGAAGTTAATACCA

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FIGURE 227

MLSRLFRMHGLFVASHPWEVIVGTVTLTICMMSNMFTGNNKICGWNYECPKFEEDVLSSDIIILITITRCIAILY
IYFQFQNLRLQLGSKYILGIAGLFTIFSSVFSTVVIHFLDKELTGLNEALPFFLLIDLSRASTLAKFALSSNSQ
DEVRENIARGMAILGPTFTLDALVECLVIGVGTMSGVRQLEIMCCFGCMSVLANYFVFMFFPACVSLVLELSRE
SREGRPIWQLSHFARVLEEEENKPNPVTQRVKMIMSLGLVLVHAHSRWIADPSPQNSTADTSKVSGLDENVSKR
IEPSVSLWQFYLSKMISMDIEQVITLSLALLLAVKYIFFEQTETESTLSLKNPITSPVVTQKKVPDNCRRPML
VRNNQKCDVVEETGINRERKVEVIKPLVAETDTPNRATFVVGNSSLLDTSSVLVTQEPEIELPREPRPNEECLQ
ILGNAEKGAFLSDAEIIQLVNAKHIPAYKLETLMETHERGVSIRRQLLSKKLSEPSSLQYLPYRDYNYSVMGA
CCENVIGYMPIPVGVAGPLCLDEKEFQVPMATTEGCLVASTNRGCRAIGLGGGASSRVLADGMTRGPVVRPRAC
DSAEVKAWLETSEGFAVIKEAFDSTSRFARLQKLHTSIAGRNLIRFQSRSGDAMGMNMISKGTEKALS KLHEYF
PEMQILAVSGNYCTDKKPAAINWIEGRGKSVVCEAVIPAKVVREVLKTTTEAMIEVNINKNLVGSAMAGSIGGYN
AHAANIVTAIYIACGQDAAQNVGSSNCITLMEASGPTNEDLYISCTMPSIEIGTVGGGTNLLPQQACLQMLGVQG
ACKDNPGENARQLARIVCGTVMAGELSLMAALAAGHLVKSHMIHNRSKINLQDLQGACTKKTA

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FIGURE 228A

TTCGGTGGCCTCTAGTGAGATCTGGAGGATCCAAGGATTCTGTAGCTACAATGTTGTCAAGACTTTTTCGAATGC
ATGGCCTCTTTGTGGCCTCCCATCCCTGGGAAGTCATAGTGGGACAGTGACACTGACCATCTGCATGATGTCCA
TGAACATGTTTACTGGTAACAATAAGATCTGTGGTTGGAATTATGAATGTCCAAAGTTTGAAGAGGATGTTTTGA
GCAGTGACATTATAATTCTGACAATAACACGATGCATAGCCATCCTGTATATTTACTTCCAGTTCCAGAATTTAC
GTCAACTTGGATCAAAATATATTTTGGGTATTGCTGGCCTTTTCACAATTTTCTCAAGTTTGTATTTCAGTACAG
TTGTCATTCACTTCTTAGACAAAGAATTGACAGGCTTGAATGAAGCTTTGCCCTTTTCTACTTTTGATTGACC
TTTCCAGAGCAAGCACATTAGCAAAGTTTGGCCTCAGTTCCAACCTCACAGGATGAAGTAAGGGAAAATATTGCTC
GTGGAATGGCAATTTTAGGTCTACGTTTACCCTCGATGCTCTTGTGTAATGTCTTGTGATTGGAGTTGGTACCA
TGTCAGGGGTACGTCAGCTTGAAATTATGTGCTGCTTTGGCTGCATGTCAGTTCTTGCCAACTACTTCGTGTTCA
TGACTTTCTTCCAGCTTGTGTGTCCTTGGTATTAGAGCTTTCTCGGGAAGCCGCGAGGGTCGTCCAATTTGGC
AGCTCAGCCATTTTGGCCGAGTTTGTAGAAGAAGAAGAAAATAAGCCGAATCCTGTAACCTCAGAGGGTCAAGATGA
TTATGTCTCTAGGCTTGGTTCTTGTTCATGCTCACAGTCGCTGGATAGCTGATCCTTCTCCTCAAAACAGTACAG
CAGATACTTCTAAGGTTTCATTAGGACTGGATGAAAATGTGTCCAAGAGAATTGAACCAAGTGTTTTCCCTCTGGC
AGTTTTATCTCTCTAAAATGATCAGCATGGATATTGAACAAGTTATTACCCTAAGTTTAGCTCTCCTTCTGGCTG
TCAAGTACATCTTCTTTGAACAAACAGAGACAGAATCTACACTCTCATTAAAAAACCTATCACATCTCCTGTAG
TGACACAAAAGAAAGTCCCAGACAATTGTTGTAGACGTGAACCTATGCTGGTCAGAAATAACCAGAAATGTGATT
CAGTAGAGGAAGAGACAGGGATAAACCCGAGAAAGAAAAGTTGAGGTTATAAAACCCTTAGTGGCTGAAACAGATA
CCCCAAACAGAGCTACATTTGTGGTTGGTAACCTCCTTACTCGATACTTCATCAGTACTGGTGACACAGGAAC
CTGAAATTGAACTTCCCAGGGAACCTCGGCCTAATGAAGAATGTCTACAGATACTTGGGAATGCAGAGAAAGGTG
CAAAATTCCTTAGTGATGCTGAGATCATCCAGTTAGTCAATGCTAAGCATATCCAGCCTACAAGTTGGAACTC
TGATGGAACTCATGAGCGTGGTGTATCTATTTCGCCGACAGTTACTTTCCAAGAAGCTTTCAGAACCTTCTTCTC
TCCAGTACCTACCTTACAGGGATTATAATTACTCCTTGGTGATGGGAGCTTGTGTGAGAATGTTATTGGATATA
TGCCCATCCCTGTTGGAGTGGCAGGACCCCTTTGCTTAGATGAAAAAGAATTTAGGTTCCAATGGCAACAACAG
AAGGTTGTCTTGTGGCCAGCACCAATAGAGGCTGCAGAGCAATAGGTCTTGGTGGAGGTGCCAGCAGCCGAGTCC
TTGCAGATGGGATGACTCGTGGCCAGTTGTGCGTCTTCCACGTGCTTGTGACTCTGCAGAAGTGAAAGCCTGGC
TCGAAACATCTGAAGGTTTCGCAGTGATAAAGGAGGCATTTGACAGCACTAGCAGATTTGCACGTCTACAGAAAC
TTCATACAAGTATAGCTGGACGCAACCTTTATATCCGTTTCCAGTCCAGGTCAGGGGATGCCATGGGGATGAACA
TGATTTCAAAGGTACAGAGAAAGCACTTTCAAAACTTCACGAGTATTTCCCTGAAATGCAGATTCTAGCCGTTA
GTGGTAACTATTGTACTGACAAGAAACCTGCTGCTATAAATTGGATAGAGGGAAGAGGAAAATCTGTTGTTTGTG
AAGCTGTCAATTCCAGCCAAGGTTGTGAGAGAAGTATTAAAGACTACCACAGAGGCTATGATTGAGGTCAACATTA
ACAAGAATTTAGTGGGCTCTGCCATGGCTGGGAGCATAGGAGGCTACAACGCCCATGCAGCAAACATTGTCACCG
CCATCTACATTGCCTGTGGACAGGATGCAGCACAGAATGTTGGTAGTTCAAACCTGTATTACTTTAATGGAAGCAA
GTGGTCCCACAAATGAAGATTTATATATCAGCTGCACCATGCCATCTATAGAGATAGGAACGGTGGGTGGTGGGA
CCAACCTACTACCTCAGCAAGCCTGTTTGAGATGCTAGGTGTTCAAGGAGCATGCAAAGATAATCCTGGGGAAA
ATGCCCGGCAGCTTGCCCGAATTGTGTGTGGGACCGTAATGGCTGGGGAATTGTCACCTTATGGCAGCATTGGCAG
CAGGACATCTTGTCAAAAGTCACATGATTCAACAACAGGTGCAAGATCAATTTACAAGACCTCCAAGGAGCTTGCA
CCAAGAAGACAGCCTGAATAGCCCGACAGTTCTGAACTGGAACATGGGCATTGGGTTCTAAAGGACTAACATAAA
ATCTGTGAATTAATAAAGCTCAATGCATTGTCTTGTGGAGGATGAATAAATGTGATCACTGAGACAGCCACTTGG
TTTTTGGCTCTTTCAGAGAGGTCTCAGGTTCTTTCCATGCAGACTCCTCAGATCTGAACACAGTTTAGTGCTTTA
CATGCTGTGCTCTTTGAAGAGATTTCAACAAGAATATTGTATGTTAAAGCATCAGAGATGGTAATCTACAGCTCA
CCTCTGAAAGCAAAATAAAGCTGGGAAAAAAGTTTTGATGAAATTCCTGAAGTTCATGGTGATCAGTGCAATTGA
CCTTCTCCCTCACTCCTGCCAGTTGAAAATGGATTTTTAAATTATACTGTAGCTGATGAAACTCCTGATTTTGTG
GTTAATTTATTAAGTCTGGGATGTAGAAGTTCAAGAAGTAAGAGCTAAGTTCTAAGTTTCATGTTTGTAAATTAAT
ACTTCATTTGGTGCTGGTCTATTTTGATTTTGGGGGTAATCAGCATTATCTTCAGAAGGGGACCTGTTTTCTT
CAAGGGAAGAAACACTCTTATCCCAAACCTACAGAATAATGTGTTAAACATGCTAAATAGTTCTATCAGGAAAC
AAATCACTGTATTTATCTCCGAGGCTATTTGTTTCAGAGAGGCCTTTTGTAAATATAAATGTTTAAATATAAA
TGTTTGTCTGGATTGGCTATAACATGTCTTTCAGCATTAGGCTTTTAAAGAAACACAGGGTTTTGTATTCTTTACT
AAAGATATCAGAGCTCTTAATGTTGCTTAGATGAGGGTGACTGTCAAGTACAAGCAAGACTGGGACCTTAGAAAT

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FIGURE 228B

CATTGTAGAAACACAGTTTTGAAAGATTTTTACCATGTCTCTAAGCCAACTTTAATTGCTTAAAAGACATTTTTTA
 TTTAGTTGAAAAATCTAGTTTTTTTTTGTAACCTGTACCAAATCTGTATATGTTGTAATAAACTTATGCTAGTTT
 ATTGGAAGTGTTCAAGAAATAAAAATCAACTTGTGTACTGATAAAATACTCTAGCCTGGGCCAGAGAAGATAATG
 TTCTTTAATGTTGTCAGGAAACCCTGGCTTGCTTGCCGAGCCTAATGAAAGGGAAAGTCAGCTTTCAGAGCCAGT
 GAAGGAGCCACGTGAATGGCCCTAGAAGTGTGCCTAGTTCCCTGTGGCCAGGAGGTTGGTGACTGAAACATTCACA
 CAGGGCTCTTGGATGGACCCACGAACGCTCTTAGCTTTCTCAGGGGGTCAGCAGAGTTATTGAATCTTAATTTTT
 TTTAATGTACAAGTTTTGTATAAATAATAAAGAACTCCTTATTTTTGTATTACATCTAATGCTTAAGTGTGCTCT
 TGGAAGCTGATGATGTCTCTTGTAGAGATGACTCTGAAAAACATTCCAGGAAACCATGGCAGCATGGAGAGCCT
 CTTAGTGATTGTGCTGCTGATTGTTATTGTGGAAGATTTACCTTTTCTGTTGTACGTAAAGCTTAAATTACTTTTG
 TTGTGACTTTTTAGCCAGTGACTTTTTCTGAGCTTTTCATGGAAGTGGCAGTGAAAAATATGTTGAGTGTTCAA
 AAAGTGACTGTAATTAATATCTTGCTGGATTAATGTTTTGTACAATTACTAAATTGTATACATTTTGTTATAGAA
 TACTTTTTTCTAGTTTCAGTAAATAATGAAAAGGAAGTTAATACCA

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FIGURE 229

MLSR LFRMHGLFVASHPWEVIVGTVTLTICMMSMNMTGNKICGWNYECPKFEEDVLSSDIIILTITRCIAILY
IYFQFNLRQLGSKYILGIAGLFTIFSSVFSTVVIHFLDKELTGLNEALPFFLLIDLSRASTLAKFALSSNSQ
DEVRENIARGMAILGPTFTLDALVECLVIGVGTMSGVRQLEIMCCFGCMSVLANYFVFMFFPACVSLVLELSRE
SREGRPIWQLSHFARVLEEEENKPNPVTQRVKMIMSLGLVLVHAHSRWIADPSPQNSTADTSKVSGLDENVSKR
IEPSVSLWQFYLSKMISMDIEQVITLSLALLAVKYIFFEQTETESTLSLKNPITSPVVTQKKVPDNCRRPML
VRNNQKCD SVEEETGINRERKVEVIKPLVAETDTPNRATFVVGNSSLLDTSSVLVTQEPEIELPREPRPNEECLQ
ILGNAEKAGFLSDAEIIQLVNAKHIPAYKLETLMETHERGVSI RRQLLSKKLSEPSSLQYLPYRDYNYSVMGA
CCENVIGYMPIPVGVAGPLCLDEKEFQVPMATTEGCLVASTNRGCRAIGLGGGASSRVLADGMTRGPVVRLPAC
DSAEVKAWLETSEGFAVIKEAFDSTS RFARLQKLHTSIAGRNL YIRFQSRSGDAMGMNMISKGTEKALSKLHEYF
PEMQILAVSGNYCTDKKPAAINWIEGRGKSVVCEAVIPAKVVREVLKTTTEAMIEVNINKNLVGSAMAGSIGGYN
AHAANIVTAIYIACGQDAAQNVGSSNCITLMEASGPTNEDLYISCTMPSIEIGTVGGGTNLLPQQACLQMLGVQG
ACKDNPGENARQLARIVCGTVMAGELSLMAALAAGHLVKSHMIHNRSKINLQDLQGACTKKTA

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FIGURE 230

GGCACGAGGAAGATATATGGATACAGATTATATATATATATACATATTTTCCTTAATAGAGGAATGCTTCATATT
 ATTCAAAAATTATATCCTGATCACCTTTTTTTGTTTTTTATTGTAAAGTATCTCTGCTTTATCCATTGCTGAATT
 CGATAGGATGTTGAAATGCTGGTCACCAAAAAAGGAACTGAGCAAATTCATTTCAACAACATCAAACTTCAGC
 TTCTCATAGTAAAAAGCTGAATGTTACTAATATTTTTCATATCTAAAAAAAATTCTTAGCAATGAAATTGCTGT
 TAAAACACAAATTTCAATCAAATACTTTTGTGTATAGAAAATATGTATAGTAGGTAGATAGAAAAGTATAAAATG
 TTTGTTGAAGTATCTTATTTTGAATGAATGGAGAAATGCCAAAGATGAATCCTTCACTGCATTATGAAAATATT
 TCACATGTTCTCTTGGACTTTATATAAATCTGTAATAGATTTTGAATGAAAAATTCTTTGTGAAGGTCTTCTA
 AAAGTGTTCCAATTTATCTCAAAATCTCCATATATAGGATCAGCTTAAAAACATAAAGAAAACCTTGAATTTCTCA
 AATGTTTGAGATGTTCAAGACAGTCTCTTAATCCGTTAATGCTTTTGGAAACAATTGACAAAATAGGGCAGGCAG
 CTCATCTCATGTCTCTGAAGTTGGAATTTAAATAATTCCTATTTGCAAATTAGAATGACAGTGTGGAATTTGGAG
 GCAGTAGTTGAGCATATTCTCTAGTATATAGCTACACCTTTAATAAAATGAAGGAATGTCTTCAATCATATTTTA
 GTGGGCTATTTATAAATAGTCTTGAAGTCAATTTAGTTTATTTATTTAAAAGATAATGCATCCTGAAAGGGATCA
 TTTATGAATAACAATCTGAAGTCTTTTCATAAAAAAATTAATAAACTTTAGTTGTACATTTAGCCAGTGTTATT
 TGAAGTATGTAACTTTAAATATTAAGTGTCTTGTATGATTAGAATATGTGAATGAGTAACTTATTTGTATCA
 GGAATGTTTTGGTACTGTGTTTTCACTCAAACCACTGACTTAACAGATACTGCTGTGTATAACATGTACTAAATA
 TTACAGTTATTGTGCATAACAGATTGTTCTCTTATATTTGTGTGTATACAGGCAATTCATGTTTTAATGTAAAT
 AAATACCATTTTGCAGTTAAAAAAAAAAAAAAAAAAAAA

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FIGURE 231

GGGGGGGGGGGACCACTTGGCCTGCCTCCGTCCCGCCGCGCCACTTGGCCTGCCTCCGTCCCGCCGCGCCACTT
CGCCTGCCTCCGTCCCCCGCCGCGCGCC**ATG**CCTGTGGCCGGCTCGGAGCTGCCGCGCCGGCCCTTGCCCCC
GCCGCACAGGAGCGGGACGCCGAGCCGCGTCCGCCGCACGGGGAGCTGCAGTACCTGGGGCAGATCCAACACATC
CTCCGCTGCGGCGTCAGGAAGGACGACCGCACGGGCACCGGCACCCTGTCGGTATTCGGCATGCAGGCGCGCTAC
AGCCTGAGAGATGAATTCCCTCTGCTGACAACCAAACGTGTGTTCTGGAAGGGTGTTTTGGAGGAGTTGCTGTGG
TTTATCAAGGGATCCACAAATGCTAAAGAGCTGTCTTCCAAGGGAGTGAAAATCTGGGATGCCAATGGATCCCGA
GACTTTTTGGACAGCCTGGGATTCTCCACCAGAGAAGAAGGGGACTTGGGCCCAGTTTATGGCTTCCAGTGGAGG
CATTTTGGGGCAGAATACAGAGATATGGAATCAGATTATTCAGGACAGGGAGTTGACCAACTGCAAAGAGTGATT
GACACCATCAAAACCAACCCTGACGACAGAAGAATCATCATGTGCGCTTGGAATCCAAGAGATCTTCCTCTGATG
GCGCTGCCTCCATGCCATGCCCTCTGCCAGTTCTATGTGGTGAACAGTGAGCTGTCTGCCAGCTGTACCAGAGA
TCGGGAGACATGGGCCCTCGGTGTGCCTTTCAACATCGCCAGCTACGCCCTGCTCACGTACATGATTGCGCACATC
ACGGGCCTGAAGCCAGGTGACTTTATACACACTTTGGGAGATGCACATATTTACCTGAATCACATCGAGCCACTG
AAAATTCAGCTTCAGCGAGAACCCAGACCTTTCCCAAAGCTCAGGATTCTTCGAAAAGTTGAGAAAATTGATGAC
TTCAAAGCTGAAGACTTTCAGATTGAAGGGTACAATCCGCATCCAACATATTAATAATGGAATGGCTGTT**TAGGGT**
GCTTTCAAAGGAGCTTGAAGGATATTGTCAGTCTTTAGGGGTTGGGCTGGATGCCGAGGTAAAAGTTCTTTTTGC
TCTAAAAGAAAAAGGAAGTAGGTCAAAAATCTGTCCGTGACCTATCAGTTATTAATTTTAAGGATGTTGCCACT
GGCAATGTAACTGTGCCAGTTCTTTCCATAATAAAAGGCTTTGAGTTAACTCACTGAGGGTATCTGACAATGCT
GAGGTTATGAACAAAGTGAGGAGAATGAAATGTATGTGCTCTTAGCAAAAACATGTATGTGCATTTCAATCCAC
GTACTTATAAAGAAGGTTGGTGAATTTACAAGCTATTTTTGGAATATTTTAGAATATTTTAAGAATTTACAA
GCTATTCCTCAAATCTGAGGGAGCTGAGTAACACCATCGATCATGATGTAGAGTGTGGTTATGAACTTTATAGT
TGTTTTATATGTTGCTATAATAAAGAAGTGTTCTGC

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FIGURE 232

MPVAGSELPRRPLPPAAQERDAEPRPPHGELQYLQIQHILRCGVRKDDRTGTGTLVFGMQARYSLRDEFLLT
TKRVFWKGVLEELLWFIKGSTNAKELSSKGVKIWDANGSRDFLDSLGFSTREEGDLGPVYGFQWRHFGAEYRME
SDYSGQGVQDLQRVIDTIKTNPDDRRRIIMCAWNPRDLPLMALPPCHALCQFYVVNSELSCQLYQRSGDMGLGVPF
NIASYALLTYMIAHITGLKPGDFIHTLGDAHIYLNHIEPLKIQLQREPRPFPKLRIILRKVEKIDDFKAEDFQIEG
YNPHPTIKMEMAV

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FIGURE 233

CTATCCGCGCGCTCGCCGGCCAGTCCTGTCGCTGACGGGAGGATCTGAAGCCGGCCGAGGTCAAAGAGTAAA
ATGAAGTACATTCTGGTTACTGGTGGTGTATATCAGGAATTGAAAAAGGAATCATTGCCAGCAGTGTGGGCACA
ATACTCAAGTCATGTGGTTTACATGTAACCTCAATCAAAATTGACCCCTACATTAACATTGATGCAGGAACATTC
TCTCCTTATGAGCATGGTGAGGTTTTTGTGCTGGATGATGGTGGGGAAGTAGACCTTGACCTGGGTAACATATGAG
CGGTTCCCTTGACATCCGCCTCACCAAGGACAATAATCTGACCACTGGAAAGATATACCAGTATGTCATTAACAAG
GAACGGAAAGGAGATTACTTGGGGAAAACCTGTCCAAGTTGTCCCTCATATCACAGATGCAATCCAGGAGTGGGTG
ATGAGACAGGCGTTAATACCTGTAGATGAAGATGGCCTGGAACCTCAAGTGTGTGTTATTGAGCTTGGTGGAAAC
GTGGGGGACATAGAAAGCATGCCCTTTATTGAGGCCTTCCGTCAGTTCCAATTCAAGGTCAAAGAGAGAACTTT
TGTAACATCCACGTCAGTCTAGTTCCCCAGCCAAGTTCAACAGGGGAACAGAAGACTAAACCTACCCAGAATAGT
GTTCCGGAACTTAGAGGACTTGGGCTTTCCCCAGATCTGGTTGTATGCAGGTGCTCAAATCCACTTGACACATCA
GTGAAGGAGAAAAATATCAATGTTCTGCCATGTTGAGCCTGAACAAGTGATCTGTGTCCACGATGTCTCATCCATC
TACCGAGTCCCCTTGTGTTAGAGGAGCAAGGGGTTGTAGATTATTTTCTTGAAGACTTGACCTTCCATTAGAG
AGGCAGCCAAGAAAAATGCTGATGAAATGGAAAGAGATGGCTGACAGATATGATCGCTTGCTGGAGACCTGCTCT
ATTGCCCTTGTGGCGAAATACACCGAGTTCTCAGACTCCTATGCCTCTGTCTATTAAGGCTCTGGAGCATTCTGCA
CTGGCCATCAACCACAAATTGGAAATCAAGTACATAGATTCTGCGGACTTGGAGCCCATCACCTCGCAAGAAGAG
CCCGTGCGCTACCACGAAGCTTGGCAGAAGCTCTGTAGTGCTCATGGAGTGCTGGTTCCAGGAGGATTTGGTGT
CGAGGAACAGAAGGAAAAATCCAAGCAATTGCCTGGGCTCGGAATCAGAAAAAGCCTTTTTTGGGCGTGTGCTTA
GGGATGCAGTTGGCAGTGGTTGAATTCTCAAGAAACGTGCTGGGATGGCAAGATGCCAATTCTACAGAGTTTGAC
CCTACGACCAGTCATCCCGTGGTCTGTAGACATGCCAGAACACAACCCAGGGCAGATGGGCGGAACCATGAGGCTG
GGCAAGAGGAGAACCCTGTTCCAGACCAAGAACTCAGTCATGAGGAACTCTATGGAGACGCAGACTACTTGAA
GAGAGGCACCGCCACCGATTTGAGGTGAATCCAGTCTGGAAAAAGTGTTTGAAGAACAAGGCTTGAAGTTTGT
GGCCAAGATGTTGAAGGAGAGAGAATGGAAATTGTGGAGTTAGAAGATCATCCCTTTTTTGTGGGGTTTCACTAC
CACCTTGAGTTCTGTCCAGGCCTATCAAGCCCTCCCCACCATACTTTGGCCTCCTCTGGCCTCTGTGGGGCGG
CTCTCACATTACCTCCAGAAAGGCTGCAGGCTCTCACCCAGGGACACCTATAGTGACAGGAGTGGAAGCAGCTCC
CCTGACTCTGAAATCACCGAACTGAAGTTTCCATCAATAAATCATGACT**TGA**TCTTGTAGCGGATGATTCTTCAAG
AGACCTTCAAACCTTGGGTAGAGTTTACAGCTCTGACTTTACACTCGGCTTTGGAGACTTTCTTTAAATTATGTT
TTTATTAAGATTATTTTATTATGCGGAAAGGTATTTGGGAACTTGTCACTTGTCATGTCCCATCACGTGTACTGG
CTCCTCTGTGGTGTCTGCCTGTTGCGTGACACTCTCCTTGCACTTCTTGAGTTGCGGCAGAACATCGCGATGGGA
ACCGATGGTGGGTGGGGCTGCAGATGTCCCATCGGTCACCTTGTTTCTCAACTACCTCGCATCATTGCAGATCG
TAGCGCGTTGCCTGTCGCTTTCCCTTGGATACCTAGACCGTTATAAAGTGTGCCACATGGACTTACCGAGCATGG
AGAGAGGATTTTAGCTAGGATTTGAACACTTGGTGTGTTGGAAACCTCAGGGTATTGCTTGCCACTAAGCCATGAAA
CCAGAGACAAAATCTCTATACTGCCCTGAGTTGGGGGGAATTCTCAGTGCCAACTGTGGCTGGTCTCTATTCAA
GGGACGGTCAGTTTGGTGTCAACATGAAACACCAAGATGTCTGTCTCTGAAGCGTGATTTTAAATCCCCATGCC
TGTGCGTGCGCTTCTATTTCTAGGGCTGGGAAACACTCCTTGCAATCAAGGGTCACTTACAGAACAAAGAATCT
TTTGGGGGAAACTTCTCTAAAACCTCTCATATATAGACAGCTTTGACTGGAGGGTCCATTTTTCTTCCAGGAT
GGTGTACTGCAAGTTGAAGGGCAATATGAAGTTACTTTCTTAATGTGACCTAGCAATAGGCATAGCTACGTGGCA
CTATATTCTGGCCAGACTCGATGTGTACTCTAACTTAAGAAATAAATCAGTAAGGCAG

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FIGURE 234

MKYILVTGGVISGIGKGIIASSVGTILKSCGLHVTSIKIDPYINIDAGTFSPYEHGEVFLDDGGEVDLDLGNYE
RFLDIRLTKDNNLTGKIYQYVINKERKGYLGKTVQVVP HITDAIQEWVMRQALIPVDEDGLEPQVCVIELGGT
VGDIESMPFIEAFRQFQFKVKRENF CNIHVSLVPQPSSTGEQTKPTQNSVREL RGLGLSPDLVVCRC SNPLDTS
VKEKISMFC HVEPEQVICVHDVSSIYRVPLLLLEE QGVVDYFLRRDLPIERQPRKMLMKWKEMADRYDRLLETCS
IALVAKYTEFSDSYASVIKALEHSALAINHKLEIKYIDSADLEPITSQEEP VRYHEAWQKLCSAHGVLVPGGFGV
RGTEGKIQAIAWARNQKKPFLGVCLGMQLAVVEFSRNVLGWQDANSTEF DPTTSHPVVDMPEHNPGQMGGMRL
GKRRTLFQTKNSVMRKLYGDADYLEERHRHRFEVNPVWKKCLEEQGLKFVGQDVEGERMEIVELEDHPFFVGVQY
HPEFLSRPIKPSPPYFGLLLASVGRLSHYLQKGCRLSPRDTYSDRSGSSSPDSEITELKFPSINH D

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FIGURE 235

GCGCCCCAGTCGACGCTGAGCTCCTCTGCTACTCAGAGTTGCAACCTCAGCCTCGCTATGGCTCCAGCAGCCCC
 CGGCCCCGCGCTGCCCCGACTCCTGGTCCTGCTCGGGGCTCTGTTCCAGGACCTGGCAATGCCAGACATCTGTG
 TCCCCCTCAAAAGTCATCCTGCCCCGGGGAGGCTCCGTGCTGGTGACATGCAGCACCTCCTGTGACCAGCCCCAAG
 TTGTTGGGCATAGAGACCCCGTTGCCTAAAAAGGAGTTGCTCCTGCCTGGGAACAACCGGAAGGTGTATGAACTG
 AGCAATGTGCAAGAAGATAGCCAACCAATGTGCTATTCAAACCTGCCCTGATGGGCAGTCAACAGCTAAAACCTTC
 CTCACCGTGTACTGGACTCCAGAACGGGTGGAAC TGGCACCCCTCCCCCTCTTGGCAGCCAGTGGGCAAGAACCTT
 ACCCTACGCTGCCAGGTGGAGGGTGGGGCACCCCGGGCCAACCTCACCCTGGTGTGCTCCGTGGGGAGAAGGAG
 CTGAAACGGGAGCCAGCTGTGGGGGAGCCCGCTGAGGTACAGACCACGGTGTGTTGAGGAGAGATCACCATGGA
 GCCAATTTCTCGTGCCGCACTGAACTGGACCTGCGGCCCCAAGGGCTGGAGCTGTTTGAGAACACCTCGGCCCCC
 TACCAGCTCCAGACCTTTGTCTGCCAGCGACTCCCCACAACCTTGTCAGCCCCCGGGTCTTAGAGGTGGACACG
 CAGGGGACCGTGGTCTGTTCCCTGGACGGGCTGTTCCAGTCTCGGAGGCCCAGGTCCACCTGGCACTGGGGGAC
 CAGAGGTTGAACCCACAGTCACCTATGGCAACGACTCCTTCTCGGCCAAGGCCTCAGTCAGTGTGACCGCAGAG
 GACGAGGGGCACCCAGCGGTGACGTGTGCACTAATACTGGGGAACAGAGCCAGGAGACACTGCAGACAGTGACC
 ATCTACAGCTTTCCGGCGCCCAACGTGATTCTGACGAAGCCAGAGGTCTCAGAAGGGACCGAGGTGACAGTGAAG
 TGTGAGGCCCCACCTAGAGCCAAGGTGACGCTGAATGGGGTTCCAGCCCAGCCACTGGGCCCCGAGGGCCCAGCTC
 CTGCTGAAGGCCACCCAGAGGACAACGGGCGCAGCTTCTCCTGCTCTGCAACCTTGAGGTGGCCGGCCAGCTT
 ATACACAAGAACCAGACCCGGGAGCTTCGTGTCTGTATGGCCCCGACTGGACGAGAGGGATTGTCCGGGAAAC
 TGGACGTGGCCAGAAAATTCCCAGCAGACTCCAATGTGCCAGGCTTGGGGGAACCCATTGCCCGAGCTCAAGTGT
 CTAAAGGATGGCACTTTCCCACTGCCCCATCGGGGAATCAGTGA CTGCTACTCGAGATCTTGAGGGCACCTACCTC
 TGTGCGGCCAGGAGCACTCAAGGGGAGGTACCCGCGAGGTGACCGTGAATGTGCTCTCCCCCGGTATGAGATT
 GTCATCATCACTGTGGTAGCAGCCGAGTCATAATGGGCACTGCAGGCCTCAGCACGTACCTCTATAACCGCCAG
 CGGAAGATCAAGAAATACAGACTACAACAGGCCCAAAAAGGGACCCCCATGAAACCGAACACACAAGCCACGCCT
 CCCTGAACCTATCCCGGGACAGGGCCTCTTCCTCGGCCTTCCCATATTGGTGGCAGTGGTGCCACACTGAACAGA
 GTGGAAGACATATGCCATGCAGCTACACCTACCGGCCCTGGGACGCCGGAGGACAGGGCATTGTCTCAGTCAGA
 TACAACAGCATTTGGGGCCATGGTACCTGCACACCTAAAACACTAGGCCACGCATCTGATCTGTAGTCACATGAC
 TAAGCCAAGAGGAAGGAGCAAGACTCAAGACATGATTGATGGATGTTAAAGTCTAGCCTGATGAGAGGGGAAGTG
 GTGGGGGAGACATAGCCCCACCATGAGGACATACAACTGGGAAATACTGAAACTTGCTGCCTATTGGGTATGCTG
 AGGCCCACAGACTTACAGAAGAAGTGGCCCTCCATAGACATGTGTAGCATCAAAACACAAAGGCCACACTTCCT
 GACGGATGCCAGCTTGGGCACTGCTGTCTACTGACCCCAACCCCTGATGATATGTATTTATTATTGTTATTTT
 ACCAGCTATTTATTGAGTGTCTTTTATGTAGGCTAAATGAACATAGGTCTCTGGCCTCACGGAGCTCCAGTCCA
 TGTACATTCAAGGTACCCAGGTACAGTTGTACAGGTTGTACACTGCAGGAGAGTGCCTGGCAAAAAGATCAAAT
 GGGGCTGGGACTTCTCATTGGCCAACCTGCCTTTCCCCAGAAGGAGTGATTTTCTATCGGCACAAAAGCACTAT
 ATGGACTGGTAATGGTTTACAGGTTTACAGATTACCCAGTGAGGCCTTATTCCTCCCTTCCCCC AAAACTGACA
 CCTTTGTTAGCCACCTCCCCACCCACATACATTTCTGCCAGTGTTTACAATGACACTCAGCGGTCATGTCTGGAC
 ATGAGTGCCCAGGGAATATGCCCAAGCTATGCCTTGTCCTCTTGTCCTGTTTGCAATTTCACTGGGAGCTTGCACT
 ATTGCAGCTCCAGTTTCTGTCAGTGATCAGGGTCTGCAAGCAGTGGGGAAGGGGGCCAAGGTATTGGAGGACTC
 CCTCCAGCTTTGGAAGGGTCATCCGCGTGTGTGTGTGTGTGTATGTGTAGACAAGCTCTCGCTCTGTACCCAG
 GCTGGAGTGCAGTGGTGCAATCATGGTTCACTGCAGTCTTGACCTTTTGGGCTCAAGTGATCCTCCACCTCAGC
 CTCTGAGTAGCTGGGACCATAGGCTCACAACACCACACCTGGCAAATTTGATTTTTTTTTTTTTTTTTCAGAGAC
 GGGGTCTCGCAACATTGCCCAGACTTCCTTTGTGTTAGTTAATAAAGCTTTCTCAACTGCC

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FIGURE 236

MAPSSRPALPALLVLLGALFFPGPGNAQTSVSPSKVILPRGGSVLVTCSTSCDQPKLLGIETPLPKKELLPGNN
RKVYELSNVQEDSQPMCYSNCPDGQSTAKTFLTIVYWTPERVELAPLPSWQPVGKNLTLRCQVEGGAPRANLTVVL
LRGEKELKREPAVGEPAEVTTTVLVRRDHHGANFSCRTELDLRPQGLELFENTSAPYQLQTFVLPAËPPQLVSPR
VLEVDQTQGTVVCSLDGLFPVSEAQVHLALGDQRLNPTVTYGNDSFSAKASVSVTAEDEGTQRLTCAVILGNQSQE
TLQTVTIYSFPAPNVILTKPEVSEGTEVTVKCEAHPRAKVTLNGVPAQPLGPRAQLLLKATPEDNGRSFSCSATL
EVAGQLIHKNQTRRLRVLYGPRLDERDCPGNWTWPENSQQTPMCQAWGNPLPELKCLKDGTFLPIGESVTVTRD
LEGTYLCRARSTQGEVTREVTNVLSPRYEIVIIITVVAHAVIMGTAGLSTYLYNRQRKIKKYRLQQAQKGTMPKP
NTQATPP

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FIGURE 237

GC GCCCAGTCGACGCTGAGCTCCTCTGCTACTCAGAGTTGCAACCTCAGCCTCGCTATGGCTCCCAGCAGCCCC
CGGCCCGCGCTGCCCCGACTCCTGGTCCTGCTCGGGGCTCTGTTCCAGGACCTGGCAATGCCAGACATCTGTG
TCCCCCTCAAAGTCATCCTGCCCCGGGAGGCTCCGTGCTGGTGACATGCAGCACCTCCTGTGACCAGCCCCAAG
TTGTTGGGCATAGAGACCCCGTTGCCTAAAAAGGAGTTGCTCCTGCCTGGGAACAACCGGAAGGTGTATGAACTG
AGCAATGTGCAAGAAGATAGCCAACCAATGTGCTATTCAAACCTGCCCTGATGGGCAGTCAACAGCTAAAACCTTC
CTCACCGTGTACTGGACTCCAGAACGGGTGGAACCTGGCACCCCTCCCCCTCTTGGCAGCCAGTGGGCAAGAACCTT
ACCCTACGCTGCCAGGTGGAGGGTGGGGCACCCCGGGCAACCTCACCGTGGTGCTGCTCCGTGGGGAGAAGGAG
CTGAAACGGGAGCCAGCTGTGGGGGAGCCCGCTGAGGTACAGACCACGGTGCTGGTGAGGAGAGATCACCATGGA
GCCAATTTCTCGTGCCGCACTGAACTGGACCTGCGGCCCAAGGGCTGGAGCTGTTTGAGAACACCTCGGCCCCC
TACCAGCTCCAGACCTTTGTCTGCCAGCGACTCCCCACAACCTTGTCAGCCCCCGGGTCTAGAGGTGGACACG
CAGGGGACCGTGGTCTGTTCCTGGACGGGCTGTTCCAGTCTCGGAGGCCAGGTCCACCTGGCACTGGGGGAC
CAGAGGTTGAACCCACAGTCACCTATGGCAACGACTCCTTCTCGGCCAAGGCCTCAGTCAGTGTGACCGCAGAG
GACGAGGGCACCCAGCGGTGACGTGTGCAGTAATACTGGGGAACAGAGCCAGGAGACACTGCAGACAGTGACC
ATCTACAGCTTTCCGGCGCCCAACGTGATTCTGACGAAGCCAGAGGTCTCAGAAGGGACCGAGGTGACAGTGAAG
TGTGAGGCCCCACCTAGAGCCAAGGTGACGCTGAATGGGGTTCCAGCCCAGCCACTGGGCCCCAGGGCCCCAGCTC
CTGCTGAAGGCCACCCAGAGGACAACGGGCGCAGCTTCTCCTGCTCTGCAACCTGGAGGTGGCCGGCCAGCTT
ATACACAAGAACCAGACCCGGGAGCTTCGTGTCTGTATGGCCCCGACTGGACGAGAGGGATTGTCCGGGAAAC
TGGACGTGGCCAGAAAATTCCCAGCAGACTCCAATGTGCCAGGCTTGGGGGAACCCATTGCCCGAGCTCAAGTGT
CTAAAGGATGGCACTTTCCCACTGCCCATCGGGGAATCAGTGACTGTCACTCGAGATCTTGAGGGCACCTACCTC
TGTCGGGCCAGGAGCACTCAAGGGGAGGTACCCGCGAGGTGACCGTGAATGTGCTCTCCCCCGGTATGAGATT
GTCATCATCACTGTGGTAGCAGCCGAGTCATAATGGGCACTGCAGGCCTCAGCACGTACCTCTATAACGCCAG
CGGAAGATCAAGAAATACAGACTACAACAGGCCCAAAAAGGGACCCCCATGAAACCGAACACACAAGCCACGCCT
CCCTGAACCTATCCCGGGACAGGGCCTCTTCCTCGGCCTTCCCATATTGGTGCCAGTGTTGCCACACTGAACAGA
GTGGAAGACATATGCCATGCAGCTACACCTACCGGCCCTGGGACGCCGAGGACAGGGCATTGTCTCAGTCAGA
TACAACAGCATTTGGGGCCATGGTACCTGCACACCTAAAACACTAGGCCACGCATCTGATCTGTAGTCACATGAC
TAAGCCAAGAGGAAGGAGCAAGACTCAAGACATGATTGATGGATGTTAAAGTCTAGCCTGATGAGAGGGGAAGTG
GTGGGGGAGACATAGCCCCACCATGAGGACATACAACTGGGAAATACTGAAACTTGCTGCCATTGGGTATGCTG
AGGCCACAGACTTACAGAAGAAGTGGCCCTCCATAGACATGTGTAGCATCAAAACACAAAGGCCACACTTCCT
GACGGATGCCAGCTTGGGCACTGCTGTCTACTGACCCCAACCTTGATGATATGTATTTATTCATTTGTTATTTT
ACCAGCTATTTATTGAGTGTCTTTTATGTAGGCTAAATGAACATAGGTCTCTGGCCTCACGGAGCTCCCACTCCA
TGTCACATTCAAGGTACCCAGGTACAGTTGTACAGGTTGTACACTGCAGGAGAGTGCCTGGCAAAAAGATCAAAT
GGGGCTGGGACTTCTCATTGGCCAACCTGCCTTTCCCCAGAAGGAGTGATTTTCTATCGGCACAAAAGCACTAT
ATGGACTGGTAATGGTTTACAGGTTTACAGATTACCCAGTGAGGCCTTATTCCTCCCTTCCCCCAAACTGACA
CCTTTGTTAGCCACCTCCCCACCCACATACATTTCTGCCAGTGTTTACAATGACACTCAGCGTTCATGTCTGGAC
ATGAGTGCCCAAGGAATATGCCCAAGCTATGCCTTGTCCTCTTGCTCTGTTGCAATTCCTGAGGAGCTTGCCT
ATTGCAGCTCCAGTTTCTGTCAGTGATCAGGGTCTGCAAGCAGTGGGGAAGGGGGCCAAGGTATTGGAGGACTC
CCTCCAGCTTTGGAAGGGTCATCCGCGTGTGTGTGTGTGTGTATGTGTAGACAAGCTCTCGCTCTGTACCCAG
GCTGGAGTGCACTGGTGCAATCATGGTTCACTGCAGTCTTGACCTTTTGGGCTCAAGTGATCCTCCACCTCAGC
CTCCTGAGTAGCTGGGACCATAGGCTCACAAACACACCTGGCAAATTTGATTTTTTTTTTTTTTTTTCAGAGAC
GGGGTCTCGCAACATTGCCCAGACTTCCTTTGTGTTAGTTAATAAAGCTTTCTCAACTGCC

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FIGURE 238

MAPSSPRPALPALLVLLGALFPGPGNAQTSVSPSKVILPRGGSVLVTCSTSCDQPKLLGIETPLPKKELLLPGNN
RKVYELSNVQEDSQPMCYSNCPDGQSTAKTFLTVYWTPERVELAPLPSWQPVGKNLTLRCQVEGGAPRANLTVVL
LRGEKELKREPAVGEPAEVTTTTLVRRDHHGANFSCRTELDLRPQGLELFENTSAPYQLQTFVLPAATPPQLVSPR
VLEVDTOGTVVCSLDGLFPVSEAQVHLALGDQRLNPTVITYGNDSSFSAKASVSVTAEDEGTQRLTCAVILGNQSQE
TLQTVTIYSFPAPNVILTKPEVSEGTEVTVKCEAHPRAKVTLNGVPAQPLGPRAQLLLKATPEDNGRSFSCSATL
EVAGQLIHKNQTRRLRVLYGPRLDERDCPGNWTWPENSQQTPMCQAWGNPLPELKCLKDGTFFLP IGEŠTVTRD
LEGTYLCRARSTQGEVTREVTNVLSPRYEIVIIITVAAAVIMGTAGLSTYLYNRQRKIKKYRLQQAQKGTPMKP
NTQATPP

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FIGURE 239

CTTCGGTCCGTGCTGTAGTGCCTTCTGCGCCAGGCCCGGTTCAATCAGCGGCCACAACCTGTCTAGGGCTCAGACAC
CACCAGCCAATGAGGGAGGGCACGTGGAGCCGCGTCTGGGCTCGCGGCTCCTGACCAATGGGGAAGTGGCATGTG
GGAGGGCGCCGGGTTCCCCCGCCAATGGGGAGCTACGGCGCGCGGCCGGGACTTGAGGGCGGTGCGGCGCGGC
GGGTGCGGTTTCAGTCGGTCGGCGGGCAGCGGAGGAGGAGGAGGAGGAGGATGAGGAGGATGAGGAGGATG
TGGGCCACGCAGGGGCTGGCGGTGCGCGTGGCTCTGAGCGTGCTGCCGGGCAGCCGGGCGCTGCGGCCGGGCGAC
TGCGAAGTTTGTATTTCTTATCTGGGAAGATTTTACCAGGACCTCAAAGACAGAGATGTCACATTCTCACCAGCC
ACTATTGAAAACGAACTTATAAAGTTCTGCCGGAAGCAAGAGGCAAAGAGAATCGGTTGTGCTACTATATCGGG
GCCACAGATGATGCAGCCACCAAATCATCAATGAGGTATCAAAGCCTCTGGCCCACCACATCCCTGTGGAGAAG
ATCTGTGAGAAGCTTAAGAAGAAGGACAGCCAGATATGTGAGCTTAAGTATGACAAGCAGATCGACCTGAGCACA
GTGGACCTGAAGAAGCTCCGAGTTAAAGAGCTGAAGAAGATTCTGGATGACTGGGGGGAGACATGCAAAGGCTGT
GCAGAAAAGTCTGACTACATCCGGAAGATAAATGAACTGATGCCTAAATATGCCCCAAGGCAGCCAGTGCACCG
ACCGATTGTTAGTCTGCTCAATCTCTGTTGCACCTGAGGGGGAAAAAACAGTTCAACTGCTTACTCCCCAAACAG
CCTTTTTGTAATTTATTTTTTAAGTGGGCTCCTGACAATACTGTATCAGATGTGAAGCCTGGAGCTTTCCTGATG
ATGCTGGCCCTACAGTACCCCATGAGGGGATTCCCTTCCTTCTGTTGCTGGTGTACTCTAGGACTTCAAAGTGT
GTCTGGGATTTTTTTATTAAAGAAAAAAATTTCTAGCTGTCAAAAAAAAAA

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FIGURE 240

MGKWHVGGRRGSPRQWGATARGRDLEAVRRGGCGSVGRRRQRRRRRRRRMRMRMRMWATQGLAVRVALSVLPGR
ALRPGDCEVCISYLGRFYQDLKDRDVTFSPATIENELIKFCREARGKENRLCYIIGATDDAATKIINEVSKPLAH
HIPVEKICEKLKKKDSQICELKYDKQIDLSTVDLKKLRVKELKKILDDWGETCKGCAEKSDYIRKINELMPKYAP
KAASAPTDL

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FIGURE 241

CGGAGCCGCCCGCTGAGGTCAGAAGGAGGCGTCTGCGCTGATCGGGTCCGCCGCGGCCAGAGCCAGAGTCGCAG
CCGAGGGGAGCCGGGGCCGGAGCCCGAGCCCGAGCCGAGCCGAGCCGAGCGAGCGGCGGAGACCGTGCCCCCG
CCTCGGCCCCGCGCCGCGCGGCCAGGCCCCGGCATGGAGGAGGAGTGCCGGGTGCTCTCCATACAGAGCCACGTC
ATCCGCGGCTACGTGGGCAACCGGGCGGCCACGTTCCCGCTGCAGGTTTTGGGATTTGAGATTGACGCGGTGAAC
TCTGTCCAGTTTTCAAACCACACAGGCTATGCCCCACTGGAAGGGCCAAGTGCTGAATTCAGATGAGCTCCAGGAG
TTGTACGAAGGCCTGAGGCTGAACAACATGAATAAATATGACTACGTGCTCACAGGTTATACGAGGGACAAGTCG
TTCCTGGCCATGGTGGTGGACATTGTGCAGGAGCTGAAGCAGCAGAACCCCGAGGCTGGTGTACGTGTGTGATCCA
GTCTTGGGTGACAAGTGGGACGGCGAAGGCTCGATGTACGTCCCGGAGGACCTCCTTCCCGTCTACAAAGAAAAA
GTGGTGCCGCTTGCAGACATTATCACGCCCAACCAGTTTGAGGCCGAGTTACTGAGTGGCCGGAAGATCCACAGC
CAGGAGGAAGCCTTGCGGGTGATGGACATGCTGCACTCTATGGGCCCCGACACCGTGGTTCATCACCAGCTCCGAC
CTGCCCTCCCCCGAGGGCAGCAACTACCTGATTGTGCTGGGGAGTCAGAGGAGGAGGAATCCCGCTGGCTCCGTC
GTGATGGAACGCATCCGGATGGACATTCGCAAAGTGGACGCCGTCTTTGTGGGCACTGGGGACCTGTTTGCTGCC
ATGCTCCTGGCGTGGACACACAAGCACCCCAATAACCTCAAGGTGGCCTGTGAGAAGACCGTGTCTACCTTGCAC
CACGTTCTGCAGAGGACCATCCAGTGTGCAAAGCCCAGGCCGGGGAAGGAGTGAGGCCAGCCCCATGCAGCTG
GAGCTGCGGATGGTGCAGAGCAAAAGGGACATCGAGGACCCAGAGATCGTCGTCCAGGCCACGGTGCTGTGAGGG
CCCCGCCGCTTGCCCGTGACACGCAGCGCGTTGGTGTCTCCGTGTTTGTCCCTGTGAAAACATGTAACGTCTGCC
TTAGAGCCATGACCGAACTTGATATTTTTTTCTTTTCATGAGTGTCCGGCATCTGCTGGTCTTCATTGTGAAACG
TGCCAGTCGTGCTTTGTGAAAAATAACAAAGTGGTCACAAAAAAAAAAAAAAAAAAAA

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FIGURE 242

MEEECRVLSIQSHVIRGYVGNRAATFPLQVLGFEIDAVNSVQFSNHTGYAHWKGQVLNSDELQELYEGLRLNNMN
KYDYVLTGYTRDKSFLAMVVDIVQELKQONPRLVYVCDPVLGDKWDGEGSMYVPEDLLPVYKEKVVPLADIITPN
QFEAELLSGRKIHSQEEALRVMDMLHSMGPDTVITSSDLPSPQGSNYLIVLGSQRRRNPAGSVVMERIRMDIRK
VDAVFVGTGDLFAAMLLAWTHKHPNNLKVACEKTVSTLHHVLQRTIQCAKAQAGEGVRPSPMQLELRMVQSKRDI
EDPEIVVQATVL

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FIGURE 243

GAATTCCCCCCCCCCCCCAGTGCTCCGCGCGCTCTTGACGTCCGGAGCCCCTGGAGTAGGCGCTTCCGGCCATT
CATACTGCAGTCGGTCAGTGTTTCGGTTGAAGGATTCTGTGTGCTGTTCGGACCCAGAGGGTGACGGCGCCGCTAGG
ATGAAGCTCGTGAGATTTTTGATGAAATTGAGTCATGAACTGTAACCATTGAATTGAAGAACGGAACACAGGTC
CATGGAACAATCACAGGTGTGGATGTCAGCATGAATACACATCTTAAAGCTGTGAAAATGACCCTGAAGAACAGA
GAACCTGTACAGCTGGAAACGCTGAGTATTCGAGGAAATAACATTCGGTATTTTATTCTACCAGACAGTTTACCT
CTGGATACACTACTTGTGGATGTTGAACCTAAGGTGAAATCTAAGAAAAGGGAAGCTGTTGCAGGAAGAGGCAGA
GGAAGAGGAAGAGGAAGAGGACGTGGCCGTGGCAGAGGAAGAGGGGGTCCTAGGCGAT**TAA**TGTCTCTCAAGATTT
CAAAGTCATATGAGATTTGGGATATTTTTTGTACAGGTTGTGTTTGTATTATGTCAGTTTTTAATAAACATAAATG
TGGGACAGAGCTGTCTATTTAGTATATCAAAGTTTTAGTAGTTTCCTCCACATTCACGAAATTACCACAGTGAGA
GCTAAGCATTTCTACTGGGCAGTTTCATTTTTAGTTGATCAGGTTTTAAGTTTTTGAACATAAAATTTTTCTTTTT
CTTTTTATGATGAATAAGGTTAAATAAAAGCCTTAGACAAATTAAATTTGGCAGAGTTTAATTGAGCAAAGGAC
AATTCACAAATCAGGTAGCCCCCTGAACCATAATAGGCTCAGAGGCTTCAGCCCAGCTGCATAGTTGAAGATTTAT
GGACAGAAGGAAAGTGATGTATGGAAAATGGAAGTGAGATACAGCAACAGCCGATTAGTTACAGTTTCAGCGTTT
GCCTTATTTGAATATGGTTTGAACAGTTTCGCTGTCTTTGGTTGGCTGAAACTTAGTGATTGCCACAAGAGTAGGG
TACCGTCTGTTTACACGTCCAGTTAGGCTACAGTTCTATGTACTGAGAAACCTTTAAGCTGAACCTTGAGATATGT
AAAGAGACTTTAGGCTAACTTAACAATATATATAGGAATATATCCCTTCTACTTCACATGCACTGAATATGCAT
TTTATTGCTTTACTCTTCATTCTGTGGCACCTACCCACAGGGGAAGTAAGAAGTTTGTTTTGGTATTTTCGGAAC
TAAAGTCCTTATGGGATGGGGTCTAGAATTGATTCTCCTTTCCTGAGTTTTACTCCACGGAGTCTTAGGTACCTG
GTAAAAAGTTGTCTTCTAAATTAAGGGTCATTGCTTTGTTGTCTAGCTGCTAATGTCTTACTTTTGTCTTTTG
CTTTTTAATCAGTTCTTAATAGGATATAGTTTTATGTTTTCCAAGTTATAACTTGGAGTTAATGGTCACTAGATT
ATCAGTTATGAGCAGTGTTAAATCTCCTATTAATGTGTAATGTACCTGTCAGTGCCTCCTTTATTAAGGGGTTT
TTTGAGAATAAAAGAGAAAAGACCTACTTTATTTGACAGCAAAAAAAAAAAGGAATTC

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FIGURE 244

MKLVRFLMKLSHETVTIELKNGTQVHGTTITGVDVSMNTHLKAVKMTLKNREPVQLETLSIRGNNIRYFILPDSLP
LDTLLVDVEPKVKSKKREAVAGRGRGRGRGRGRGRGRGRGGPRR

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FIGURE 245

CGACCACCCGGCCTCGGCCAATAAGCGCCGCCCTCTCGCCCCGTGTTACTGGGTAGAAGAAAACAAAAACAAAC
AGAGCGAGAAGGGCCAGAGACTCTCCGAGGCGGCGGCAGAGACAGAAGAGCGGGGTCGGGGCCGGCTGACCAGGA
ACCTGGGCGAGCAGCGGCGGGGGCCCGAGGGATTCTGAAGGAAGATTTCATTAGGTAATTTGTTTAATCAGTGC
AAGCGAAATTAAGGGAAAAATCGATGTAGAAAATGAGCAGATACTGAATGTAAACCCTGCAGATCCTGATAACTTA
AGTGA CTCTCTCTTTTCCGGTGATGAAGAAAATGCTGGGACTGAGGAAATAAAGAATGAAATAAATGGAAATTGG
ATTTTCAGCATCTCTCCATTAAACGAAGCTAGAATTAATGCCAAGGCAAAAAGGCGACTAAGGAAAACTCATCCCGG
GACTCTGGCAGAGGCGATTCCGGTCAGCGACAGTGGGAGTGACGCCCTTAGAAGTGGATTAAGTGTGCCAACCACT
CCAAAGGGAAGGTTGCTGGATAGGCGATCCAGATCTGGGAAAGGAAGGGGACTACCAAAGAAAGGTGGTGCAGGA
GGCAAAGGTGTCTGGGGTACACCTGGACAGGTGTATGATGTGGAGGAGGTGGATGTGAAAGATCCTAACTATGAT
GATGACCAGGAGAAGTGTGTTTATGAACTGTAGTTTTGCCCTTTGGATGAAAGGGCATTGAGAAGACTTTAACA
CCAATCATACAGGAATATTTTGAGCATGGAGATACTAATGAAGTTGCGGAAATGTTAAGAGATTTAAATCTTGGT
GAAATGAAAAGTGGAGTACCAGTGTGGCAGTATCCTTAGCATTGGAGGGGAAGGCTAGTCATAGAGAGATGACA
TCTAAGCTTCTTTCTGACCTTTGTGGGACAGTAATGAGCACAAGTGTGTTGAAAATCATTTGATAAATTGTTG
AAAGATCTACCTGAATTAGCACTGGATACTCCTAGAGCACCACAGTTGGTGGGCCAGTTTATTGCTAGAGCTGTT
GGAGATGGAATTTTATGTAATACCTATATTGATAGTTACAAAGGAAGTGTAGATTGTGTGCAGGCTAGAGCTGCT
CTGGATAAGGCTACCGTGCTTCTGAGTATGTCTAAAGGTGGAAGCGTAAAGATAGTGTGTGGGGCTCTGGAGGT
GGGCAGCAATCTGTCAATCACCTTGTTAAAGAGATTGATATGCTGCTGAAAGAATATTTACTCTCTGGAGACATA
TCTGAAGCTGAACATTGCCTTAAGGAAGTGAAGTACCTCATTTTCACCATGAGCTTGATATGAAGCTATTATA
ATGGTTTTAGAGTCAACTGGAGAAAGTACATTTAAGATGATTTTGGATTTATTAAAGTCCCTTTGGAAGTCTTCT
ACCATTACTGTAGACCAAATGAAAAGAGGTTATGAGAGAATTTACAATGAAATTCGGGACATTAATCTGGATGTC
CCACATTCACTCTGTGCTGGAGCGGTTTGTAGAAGAATGTTTTCAGGCTGGAATAATTTCCAAACAAGTACAGA
GATCTTTGTCTTTCAAGGGGCAGAAAGCGTTTTGTAAAGCGAAGGAGATGGAGGTCGTCTTAAACCAGAGAGCTAC
TGAATATAAGAAGTCTTGCAGTCTTAGATGTTATAAAAAATATATATCTGAATTGTAAGAGTTGTTAGCACAAAGT
TTTTTTTTTTTTTTTTTTAAGCACTTGTTTTGGGTACAAGGCATTTCTGACATTTTATAAACCTACATTTAAGGG
GAATTTTTAAAGGAAATGTTTTTCTTTTTTTTTTGTTTTTTCGAGGGGGCAAGGAGGGACAGAAAAGTAACCTCT
TCTTAAGTGGAATATTCTAATAAGCTACCTTTTGTAAAGTGCCATGTTTATTATCTAATCATTCCAAGTTTTGCAT
TGATGTCTGACTGCCACTCCTTTCTTTCAAGGACAGTGTTTTTGTAGTAAAATCACTGGTTTATACAAAGCTTT
ATTTAGGGGGTAAAGTTAAGCTGCTAAAACCCCATGTTGGCTGCTGCTGTTGAGATACTGTGCTTTGGGAGTAAA
AAAAGAAAGTTATTTCTTTGTCTTAAAGAATTTTAAAAAATTAGTCATGAGACTTATTCATCTTTCCAGGGAAC
ATACTGATTGGTCTTAAAGACTAGACAGTTAAGTAAAAGGTGGCTGGAACATCTATTTTTCTACAAAAGTGGAA
AAATGAACCTGGTCTTAGAAGAATGTACACCAAAATAAAACATGTGAAGCAGTAAAAAAAAAAAAAAAAA

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FIGURE 246

MDVENEQILNVNPADPDNLSDSLFSGDEENAGTEEIKNEINGNWISASSINEARINAKAKRRLRKNSSRDSGRGD
SVSDSGSDALRSGLTVPTSPKGRLLDRRSRSGKGRGLPKKGGAGGKGVWGTPGQVYDVEEVDVKDPNYDDDQENC
VYETVVLPLDERAFEKTLTPIIQEYFEHGDNEVAEMLRDLNLGEMKSGVPVLAVSLALEGKASHREMTSKLLSD
LCGTVMSTTDVEKSFDKLLKDLPELALDTPRAPQLVGQFIARAVGDGILCNTYIDSYKGTVDVCVQARAALDKATV
LLSMSKGGKRKDSVWGSQQSVNHLVKEIDMLLKEYLLSGDISEAEHCLKELEVPHFHHELVEAIIMVLEST
GESTFKMILDLLKSLWKSSTITVDQMKRGYERIYNEIPDINLDVPHSYSVLERFVEECFQAGIISKQLRDLCPSR
GRKRFVSEGDGGRLKPESY

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FIGURE 247

CGACCACCCGGCCTCGGCCAATAAGCGCCGCCCTCTCGCCCCGTGTTACTGGGTAGAAGAAAACAAAAACAAAC
AGAGCGAGAAGGGCCAGAGACTCTCCGAGGCGGCGGCAGAGACAGAAGAGCGGGGTCGGGGCCGGCTGACCAGGA
ACCTGGGCGAGCAGCGGCGGGGGCCCGAGGGATTCTGAAGGAAGATTTCCATTAGGTAATTTGTTTAATCAGTGC
AAGCGAAATTAAGGGAAAATGGATGTAGAAAATGAGCAGATACTGAATGTAAACCCTGCAGATCCTGATAACTTA
AGTGA CTCTCTCTTTTCCGGTGATGAAGAAAATGCTGGGACTGAGGAAATAAAGAATGAAATAAATGGAAATTGG
ATTTTCAGCATCTCCATTAACGAAGCTAGAATTAATGCCAAGGCAAAAAGGCGACTAAGGAAAACTCATCCCGG
GACTCTGGCAGAGGCGATTTCGGTCAGCGACAGTGGGAGTGACGCCCTTAGAAGTGGATTAAGTGTGCCAACCACT
CCAAAGGGAAGGTTGCTGGATAGGCGATCCAGATCTGGGAAAGGAAGGGGACTACCAAAGAAAGGTGGTGCAGGA
GGCAAAGGTGTCTGGGGTACACCTGGACAGGTGTATGATGTGGAGGAGGTGGATGTGAAAGATCCTAACTATGAT
GATGACCAGGAGA ACTGTGTTTATGAACTGTAGTTTTGCCTTTGGATGAAAGGGCATTGAGAAGACTTTAACA
CCAATCATA CAGGAATATTTTGAGCATGGAGATACTAATGAAGTTGCGGAAATGTTAAGAGATTTAAATCTTGGT
GAAATGAAAAGTGGAGTACCAGTGTGGCAGTATCCTTAGCATTGGAGGGGAAGGCTAGTCATAGAGAGATGACA
TCTAAGCTTCTTTCTGACCTTTGTGGGACAGTAATGAGCACA ACTGATGTGAAAAATCATTTGATAAATTGTTG
AAAGATCTACCTGAATTAGCACTGGATACTCCTAGAGCACCACAGTTGGTGGGCCAGTTTATTGCTAGAGCTGTT
GGAGATGGAATTTTATGTAATACCTATATTGATAGTTACAAAGGA ACTGTAGATTGTGTGCAGGCTAGAGCTGCT
CTGGATAAGGCTACCGTGCTTCTGAGTATGTCTAAAGGTGGAAGCGTAAAGATAGTGTGTGGGGCTCTGGAGGT
GGGCAGCAATCTGTCAATCACCTTGTTAAAGAGATTGATATGCTGCTGAAAGAATATTTACTCTCTGGAGACATA
TCTGAAGCTGAACATTGCCTTAAGGAACTGGAAGTACCTCATTTTACCATGAGCTTGTATATGAAGCTATTATA
ATGGTTTTAGAGTCAACTGGAGAAAGTACATTTAAGATGATTTTGGATTTATTAAAGTCCCTTTGGAAGTCTTCT
ACCATTACTGTAGACCAAATGAAAAGAGGTTATGAGAGAATTTACAATGAAATCCGGACATTAATCTGGATGTC
CCACATT CATACTCTGTGCTGGAGCGGTTTGTAGAAGAATGTTTTCAGGCTGGAATAATTTCCAAACA ACTCAGA
GATCTTTGTCTTTCAAGGGGCAGAAAGCGTTTTGTAAAGCAAGGAGATGGAGGTCTGCTTAAACCAGAGAGCTAC
TGAATATAAGA ACTCTTGCAGTCTTAGATGTTATAAAAATATATATCTGAATTGTAAGAGTTGTTAGCACAAAGTT
TTTTTTTTTTTTTTTTTTTAAAGCATTGTTTTGGGTACAAGGCATTTCTGACATTTTATAAACCTACATTTAAGGG
GAATTTTTTAAAGGAAATGTTTTTCTTTTTTTTTTTGTTTTTCGAGGGGGCAAGGAGGGACAGAAAAGTAACCTCT
TCTTAAGTGAATATTCTAATAAGCTACCTTTTGTAAAGTGCCATGTTTATTATCTAATCATTCCAAGTTTTGCAT
TGATGTCTGACTGCCACTCCTTTCTTTCAAGGACAGTGTTTTTGTAGTAAATCACTGGTTTATACAAAGCTTT
ATTTAGGGGGTAAAGTTAAGCTGCTAAAACCCCATGTTGGCTGCTGCTGTTGAGATACTGTGCTTTGGGAGTAAA
AAAAGAAAGTTATTTCTTTGTCTTAAAGAATTTTTAAAAAATTAGTCATGAGACTTATTCATCTTTCCAGGGAAC
ATACTGATTGGTCTTAAAAGACTAGACAGTTAAGTAAAAGGTGGCTGGAACATCTATTTTCTACAAA ACTGGAA
AAATGAACCTGGTTCTAGAAGAATGTACACCAAATAAAAACATGTGAAGCAGTAAAAAAAAAAAAAAAAA

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FIGURE 248

MTKYPDNLSDSLFSGDEENAGTEEIKNEINGNWISASSINEARINAKAKRRLRKNSSRDSGRGDSVSDSGSDALR
SGLTVPTSPKGRLLDRRSRSGKGRGLPKKGGAGGKGVWGTPGQVYDVEEVDVKDPNYDDDQENCVYETVVLPLDE
RAFEKTLTPIIQEYFEHGDINEVAEMLRDLNLGEMKSGVPVLAVSLALEGKASHREMTSKLLSDLCGTMSTTDV
EKSFDKLLKDLPELALDTPRAPQLVGQFIARAVGDGILCNTYIDSYKGTVDVCVQARAALDKATVLLSMKGGKRR
DSVWGSGGGQQSVNHLVKEIDMLLKEYLLSGDISEAEHCLKELEVPHFHHELVYEAIMVLESTGESTFKMILDL
LKSLWKSSTITVDQMKRGYERIYNEIPDINLDVPHSYSVLERFVEECFQAGIISKQLRDLCP SRGRKRFVSEGDG
GRLKPESY

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FIGURE 249

CGGAGCCAGCGTGGGAGGCCGCTGCCGTCGCGCGCCTTGGTTTTTCTGTTCCCTTTTTTTTTTTTTTTTTTAACTT
CCTGCCTATCACACGCAGCCATCAGCCACAAAAGACATGACTACCAACGCGGGCCCCTTGCACCCATACTGGCCT
CAGCACCTAAGACTGGACAACCTTTGTACCTAATGACCGCCCCACCTGGCATATACTGGCTGGCCTCTTCTCTGTC
ACAGGGGTCTTAGTCGTGACCACATGGCTGTTGTGTCAGGTCGTGCTGCGGTTGTCCCATTGGGGACTTGGCGGGCGA
CTGTCCCTGTGCTGGTTTGCAGTGTGTGGGTTTATTACCTGGTGATCGAGGGCTGGTTTCGTTCTCTACTACGAA
GACCTGCTTGGAGACCAAGCCTTCTTATCTCAACTCTGGAAAGAGTATGCCAAGGGAGACAGCCGATACATCCTG
GGTGACAACTTCACAGTGTGCATGGAAACCATCACAGCTTGCCGTGTTGGGGACCACTCAGCCTGTGGGTGGTGATC
GCCTTTCTCCGCCAGCATCCCCCTCCGCTTCATTCTACAGCTTGTGGTCTCTGTGGGCCAGATCTATGGGGATGTG
CTCTACTTCCTGACAGAGCACCGCGACGGATTCCAGCACGGAGAGCTGGGCCACCCTCTCTACTTCTGGTTTTAC
TTTGTCTTCATGAATGCCCTGTGGCTGGTGCTGCCTGGAGTCCTTGTGCTTGATGCTGTGAAGCACCTCACTCAT
GCCCAGAGCACGCTGGATGCCAAGGCCACAAAAGCCAAGAGCAAGAAGAACTTGAGGAGTGGTGGACCAGGCTCGA
AACTGGCCGAGGAGGAGCTCTCTGCCTGCCAGAAGAGTCTAGTCCTGCTCCACAGTTTGGAGGGACAAAGCTA
ATTGATCTGTCACTCAGGCTCATGGGCAGGCACAAGAAGGGGAATAAAGGGGCTGTGTGAAGGCACTGCTGGG
AGCCATTAGAACACAGATACAAGAGAAGCCAGGAGGTCTATGATGGTGACGATTTTTAAAATCAGGAAATAAAG
ATCTTGACTCTAAAAAAAAAAAA

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FIGURE 250

MTTNAGPLHPYWPQHRLDNFVPNDRPTWHILAGLFSVTGVLVVTTWLLSGRAAVVPLGTWRRLSLCWFAVCGFI
HLVIEGWFLVLYYEDLLGDQAFLSQLWKEYAKGDSRYILGDNFTVCMETITACLWGPLSLWVVI AFLRQHPLRFIL
QLVVS VGQIYGDVLYFLTEHRDGFQHGELGHPLYFWFYFVFMNALWLVLPGVLVLD AVKHLTHAQSTLDAKATKA
KSKKN

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FIGURE 251A

CGTGC GCGCGGTGGGCTGGTCTTCCGCGGCCGCGCTTGCGCCGCGGCGGAGGGTGGGCGCGCGGGGAGCGGGATGG
AGCTGGGGCGACCTTGCTGGAGGTACTGGCCTCAGCCCTTTCTCCCGCTTCCCCACCCCTCTTACCCCCAGATT
ACATTCTCTGTGTGGTGTCTTTACTGCAGATGAAGGATTTGGGGGCAGAGCACTTGGCAGGTCATGAAGGGGTCC
AATTCTCGGGTTGTTGAACGTCTACCTGGAACAAGAAGAGAGATTCCAACCTCGAGAAAAAGGGCTGAGTTTGA
TTGAGGCTACCCCGGAGAATGATAACACTTTGTGTCCAGGATTGAGAAATGCCAAAGTTGAAGATTTAAGGAGTT
TAGCCAACTTTTTGGATCTTGCACTGAACTTTTGTCTGGCTGTCAATATTTTGGACAGGTTCTTGGCTCTTA
TGAAGGTGAAACCTAAACATTTGTCTTGCAATTGGAGTCTGTTCTTTTTTGTCTGGCTGCTAGAATAGTTGAAGAAG
ACTGCAATATTCCATCCACTCATGATGTGATCCGGATTAGTCAGTGTAATGTACTGCTTCTGACATAAAACGGA
TGGAAAAAATAATTTAGAAAAATTGCACTATGAATTGGAAGCTACTACTGCCTTAACTTTTTGCACTTATACC
ATACTATTATACTTTGTCTACTTTCAGAAAGGAAAGAAATACTGAGCCTTGATAAACTAGAAGCTCAGCTGAAAG
CTTGCAACTGCCGACTCATCTTTTCAAAGCAAAACCATCTGTATTAGCCTTGTGCCTTCTCAATTTGGAAGTGG
AACTTTGAAATCTGTTGAATTACTGGAATTTCTCTTGCTAGTTAAAAAACATTCCAAGATTAATGACACTGAGT
TCTTCTACTGGAGAGAGTTGGTTTCTAAATGCCTAGCCGAGTATTCTTCTCCTGAATGTTGCAAACCAGATCTTA
AGAAGTTGGTTTGGATCGTTTCAAGGCGCACAGCCAGAACCTCCACAACAGCTACTATAGTGTTTCTGAGCTGC
CAACGATACCTGAGGGGGGTTGTTTTGATGAAAGTGAAAGTGAGGACTCTTGTGAAGATATGAGTTGTGGAGAGG
AGAGTCTCAGCAGCTCTCCTCCAGTGATCAAGAGTGCACCTTCTTTTTCAACTTCAAAGTGGCACAAACACTGT
GCTTTCCATCTTAGAAATCTGATTGTTCTGTGAGAATTTATATTTACAGGTTTCAAAGCAATAAATGGGGGAATA
GGTAGTTTCTGGTTTAGCCCCATCTAGTCAGGAATTAATATACTGGAATACCTACCTTCTATTTGTTATTTCAG
ATCAGATCTGGCCTATTTTCATATTTATCCTAAGCCATCAAATGGGGTAGTGCCTCTTAAACCATTAAACAGTACT
TTAGACATTGGCACTTTATTTTTCTCGTAGATCTTTAGCTACTTTGGGGAGGAGGGAAGGTGCTGATACCTTCAA
TTTGTTACTTTTTCAAGATTTTTTAAAAATAACTAGTGTAGCTTATCTTAAACATTTTATAAAACCTTCAGATGTCT
TTAAGCAGATTGGAAGTATGCAAGTGCTTCTTAGCAGGGACAGTGGATAATCCTTAATGGTTTTATCATAGATTT
CACCCCTCCCCCTTCTCAGAAGAGTGAGTATGCTCTTAAATGTCAAACACATTTTTGTTGTTTTGTTTTTAAAT
GATCAGTGTCTATTTGATGTGATGCAGATCTTATAAATTTGGGAATTATAATATTGACATTTCTGTGATTTTTAT
ATATGTAATGTCTTAATTGAGATTTCTGTTAAGGCAGAAATAATTAGGCTAGGGCTCTTAGTTTTTATTCTTATT
GCCCAAGTATTGTCAAACCTATGGTATTATTTTTAATGTTACTTTAAAAATCCATAATCTGCTAGTTTTGCATGTAC
TTATATGAAAACAGTGCAGTAAGTTGAAAACCTCAGTATCTATGGAATTGATAAATGTTGATCTGGTGTAGTATAT
TTTATCGCATTTTCTTATATTAATAAATGTCTGCATGATTACATTTTATTTCTTTGTAATTTACATTTTCAGAA
AGTGTATTGCTATATGGGTGCCAAGATTGAATATGAAGAACCCGAGTGTGTTGTAGTATTATAGTTTTAAGCAAA
CTGTGTGGTGATACAGCCATAAGAATGGGGCTTATATAAACTCTGTACATGTAAGATTTTGTACAGAGAATTTTT
AACTTTATAAATTGTATATGAACATGTAAATCTTTTAAATGTACATAAAATACTGTATTTTTTTACCTTGTGTG
TGATAGTCTAGTCATTGCATGTAAATATAATTTATTATGTATTCTGTAGTATAAATCATACATTGATGACTTACA
TTTTTACTGGTAAGTCAACATCCGTTGGATGTTTTCTGAAGTGGCTCTTTTTGAAGTGATAATAGATTGTAATTC
AAAATAAAATTATTAATGAATTCCTTGTTTGGGATCACATCTTAATTTTTAATCTGTTAAAAGTTCTTGATGT
ATTTTAATGAGAAGACTTTAGGTGAGGCTACAGTGATTCCAGAGTGAGCCTTCTAACTGGCTAGCAGAAGTTCTC
TAGGTTTGGCATCTGTGCCTTGGAGATACTGAAAGAGAATCTGTCATTTGACAATTGACCTCTTTGTGGGATGGA
CTCATTAAGTATGCTCTCAGAGACTGGTATATTACCAGAATGCCTATTAATTTTCAGTGAGAGGCAACAGGTATT
AAGTAGAACAGAAATGCTCAGGTTGGCAGATTAGAACGATCTTTCAGGAGACAAAGCAAGTTTTAATCAGTTGTTT
GGTTAATAAGTATGGGGTGTTCGCTGTGATAGGGCCCCGCCAGCTTCTGGCTCTTGTGGACCTCAAAGTATCAG
GTGGTTTTGCAAGTGGTGGTCTTTCCCTGCCCCACCCCAATAGGTTCCCCATCTGTCTAGTTTGATTTTTGTA
GACCTTTGTTTTCTCTAGTTAGAAAATCAGGTACACTGAATATGGTTTTTCATGTAACACCTCTTCTCTGGAGATA
GGGGTATGTTTTCTACCCTTCTAGTGGAGAATCCTACTTGAGGATGACCTTTCCTCTCTTACTAAATAATATTA
GTAAATAGTGGGCAATATATTCTGCTTTCAGATTTTGATTTGTTGAGATGTAAAAGTTGTTTGGGGCTTACCAAA
TCTCAAGACTCTCTTAGCTCCTGCAGGATTGTATTGCTTTTCTTACTGGATATTTTTCTGGGTAAGCATCTTT
GTGGCTTCATCTCTTCCCCCTGTGGTTTTTCAGTGTATTTAGTCGAGACCTCTCTGCTGAGCTTGCAACCTGTTTA
TTCACATGGCCTGCCATGCCACTTGGAGGTTTCTGATTACTCCCAAACCTGCTGGTTCTTTATGTCTTTCTCAGC
GAATAATTCCATCTGTTTCATGTTGGAACCTTAGGTGATATGCTCATCTCCTTTTGCCTGTTTATGGAGGTCACCA
GCCTCTATCATTTGTATGATTTGTTTTACTGTTTTATATCTCTCTGTCCCCCTTTTTCTGCCATTGGCATGGT

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FIGURE 251B

TTAGACCTGTACTCTTTATCAGCAGAGGTACTGTAATATATTTGTGATCCCTCAGCTTCCAGGCTTACTCCTGGT
CTCTGCCTTCCTATCTACATATCCTTTTAAAATAAAATTTTAACTATCTCCTGAAAAATTGTTGAGTAGGTCACG
CACAATCAGGAGAAAAATCTATTCATGACATACAAGTCTCTGTCTAATCTGAACACTGCACCTGTCTCTGGCCTT
TTTTTCTTGTCATTTTCTAGACCTTAAAAAATGTGTATTGAGAAAGAACTCTGTTAGCTATACAGAAGATGAACT
GGGCAATATAGAGTAGCAGCATGGAGACCAGTCTGACTGAACTAAGGCAGTGGAAGTGTGGATGAGGAAGAGAGG
TGAAAATTGAGAAGCGCTATCCTTTCTCTTTGGGCATTATTAGGAGGCTCACAGACAAGTCCAGGAGTCTGGTTA
TACCCTCCTGTGCCATTCAACCAGGTGGCTTTCCCATGACTGTGATGAATAAAATTGAGAAGCCCCGTGCCCTTTT
CAGAGCAGAGGGTGAGGAGAAAGCTACCATTTTGTCTCATCCTTACCCCCGTGACTTGGCGAGAGATTTGACC
TTTCAGGTTTTGATCCTGTCAATTTTCTAGGATGTGGTGCACGCACCTTTGCTGTTGCGCATGGTGAAGTATTGTGC
CTAGGTCCTGGGTCTTCATCTGTTTGGCTCTGCTACTGTTTCTCTCCTCCAGGAAGTGTGGTTAGACAAATAATG
TGTTTTAATTACCTGTCACACTCAGGATTAATACATACTCAGGTTAACTGTAGAGAGGCATTGGCTTCAGAACAC
TCCTCGTGACAATTTTAAACCATTTTCTTTGTCTAGAGTCTGCCTTTTTCTTTTTTACAATTTCTTTTATTTCAAC
ACTAGGTTTCAATATGGTGTTCCTGCTACCTCCACCTCCCTCCTCCCTCATCACACATGCAAATTGTCAGCTTA
TTGAGACAACCCACTTAGATTCATATATGGACAAGGACAAGGTATTTGCATTTGTTACTGGAATTCAGTTTTCC
TAACTATTTACTACCAGAAATGGTCAATAACTTACTTTGTGGTTAGCAAATCAAATTGTGTGATAGATAGTTTCC
CAGTATGATGGCCAGTCAGTCTTTCCATCCCTGTGCCTACATGCTGCTCTTCCCGTCCACAAGTGGAGTCTGTTT
CTCTTGAGTTTTGGCTGGCCTTATGAATGGCTTTGCTTACTGAAGTGCAGCAGAAGAAATTTAGTATATGTCCAA
GCCTAGGCTTTAAGAGACTGGCAGCTTTCTTTTTATCCTTTTTTGAAGCTAGCCACCATGCTGCAAAGAAGCTCA
GCTGGATTACTGAAAGATGAGAGGCCATGTGGAGAGAGACTCTTGAGGATGAGAGATTATCTTGATGTTCCAGC
CTTAAGCTCCAGCTGAATGTGGGTGTATCCTCAGCTACACCACAGAAAAACAGAGGAACTACTCAGTCGATCCCA
ATCAACCCACAGACTCACTAGAAATAACAAATTATTGTTTTAAGCCACGAGGTTTTGGGGGAGGGTTGTTAAACA
GTAATAGATAAGTGAGACAGATTGCTTGTTATTTATGGTCAAATGGTGATTATCTCTGGTGAGATTACAGGTGAT
GTTTTTTTTAAGTTATGCCTATCTGTAGTTTCCTTTTTTTTCTTAAATTTGATTGAATTATTAGTGTATTAACAG
AATAAAGAATGAACTTTAAACACACACGCTGGTTATATGCTTCCTCTAATTAAATTCATGGCTCTCACCAC

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FIGURE 252

CGGGLVFRGRRCAAAEGGRAGSGMELGRPLLEVLAALSPASPPLPPDYILCVVSLQMKDLGAEHLAGHEGVQ
LLGLLNVYLEQEERFQPREKGLSLIEATPENDNTLCPGLRNAKVEDLRSLANFFGSCCTETFLAVNILDRFLALM
KVKPKHLSCIGVCSFLAARIVEEDCNIPSTHDVIRISQCKCTASDIKRMEKIISEKLHYELEATTALNFLHLYH
TIILCHTSEKELSLDKLEAQLKACNCRLIFSKAKPSVLALCLLNLEVETLKSVELLEILLVKKHSHKINDTEF
FYWRELVSCLAEYSSPECCPKDLKKLVWIVSRRTAQNHLNSYYSVPELPTIPEGGCFDESESEDSCEDMSCGEE
SLSSPPSDQECTFFFNFKVAQTLCFPS

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FIGURE 253

CCGGTCGGATGCCGGACCGGGGGCACCGCTGAGGCGGTGGGTCCCCGACCTGCGAGACAGGTTTGGAAGCCCCCG
CTGCGCCCAGTCCGTGCGGACCGCGAGGCCGCGGGCGGGTGGAGGCGGTCTCCGGCACGATGAAGGATTTGGGG
GCAGAGCACTTGGCAGGTCATGAAGGGGTCCAACCTTCTCGGGTTGTTGAACGTCTACCTGGAACAAGAAGAGAGA
TTCCAACCTCGAGAAAAAGGGCTGAGTTTGATTGAGGCTACCCCGGAGAATGATAACACTTTGTGTCCAGGATTG
AGAAATGCCAAAGTTGAAGATTTAAGGAGTTTAGCCAACCTTTTTTGGATCTTGCACTGAACTTTTGTCTGGCT
GTCAATATTTTGGACAGGTTCTTGGCTCTTATGAAGGTGAAACCTAAACATTTGTCTTGCACTGGAGTCTGTTCT
TTTTTGTCTGGCTGCTAGAATAGTTGAAGAAGACTGCAATATTCATCCACTCATGATGTGATCCGGATTAGTCAG
TGTAATGTACTGCTTCTGACATAAAACGGATGGAAAAAATAATTTTCAAAAAATTGCACTATGAATTGGAAGCT
ACTACTGCCTTAAACTTTTTGCACTTATACCATACTATTATACTTTGTCATACTTCAGAAAGGAAAGAAATACTG
AGCCTTGATAAACTAGAAGCTCAGCTGAAAGCTTGCAACTGCCGACTCATCTTTTCAAAAGCAAAACCATCTGTA
TTAGCCTTGTGCCTTCTCAATTTGGAAGTGGAACCTTTGAAATCTGTTGAATTACTGGAATTTCTCTTGTAGTT
AAAAACATTCCAAGATTAATGACACTGAGTTCTTCTACTGGAGAGAGTTGGTTTCTAAATGCCTAGCCGAGTAT
TCTTCTCCTGAATGTTGCAAACAGATCTTAAGAAGTTGGTTTGGATCGTTTCAAGGCGCACAGCCAGAACCTC
CACAACAGCTACTATAGTGTTCCTGAGCTGCCAACGATACCTGAGGGGGTGTGTTTTGATGAAAGTGAAAGTGAG
GACTCTTGTGAAGATATGAGTTGTGGAGAGGAGAGTCTCAGCAGCTCTCCTCCCAGTGATCAAGAGTGCACCTTC
TTTTTCAACTTCAAAGTGGCACAAACACTGTGCTTTCCATCTTTAGAAATCTGATTGTTCTGTGAGAATTTATATT
TACAGGGTTTCAAAGCAATAAATGGGGGAATAGGTAGTTTCTGGTTTAGCCCCCATCTAGTCAGGAATTAATAT
ACTGGAATACCTACCTTCTATTTGTTATTTCAGATCAGATCTGGCCTATTTTCATATTTATCCTAAGCCATCAAAT
GGGGTAGTGCCTCTTAAACCATTAAACAGTACTTTAGACATTGGCACTTTATTTTTCTCGTAGATCTTTAGCTACT
TTGGGGAGGAGGGAAGGTGCTGATACCTTCAATTTGTTACTTTTCAAGATTTTAAAAATAACTAGTGTAGCTTA
TCTTAAACATTTTATAAAACCTTCAGATGTCTTTAAGCAGATTGGAAGTATGCAAGTGCTTCCTTAGCAGGGACA
GTGGATAATCCTTAATGTTTTATCATAGATTTACCCCTCCCCCTTCTCAGAAGAGTGAGTATGCTCTTAAATGT
CAAACACATTTTTGTTGTTTTGTTTTTAAATGATCAGTGTCTATTTGATGTGATGCAGATCTTATAAATTTGGG
AATTATAATATTGACATTTCTGTGATTTTTATATATGTAATGTCTTAATTGAGATTTGTGTTAAGGCAGAAATAA
TTAGGCTAGGGCTCTTAGTTTTTCATTCCTATTGCCCAAGTATTGTCAAACCTATGGTATTATTTTAATGTTACTT
TAAAAATCCATAATCTGCTAGTTTTGCATGTACTTATATGAAAACAGTGCAGTAAGTTGAAAACCTCAGTATCTAT
GGAATTGATAAATGTTGATCTGGTGTAGTATATTTTATCCGCATTTTCTTATATTAAAAATGTTCTGCATGATT
ACATTTTATTTGCCTTTGT

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FIGURE 254

MKDLGAEHLAGHEGVQLLGLLNIVYLEQEERFQPREKGLSLIEATPENDNTLCPGLRNAKVEDLRSLANFFGSCTE
TFVLAVNILDRLALMKVKPKHLSCIGVCSFLLAARIVEEDCNIPSTHDVIRISQCKCTASDIKRMEKIISEKLH
YELEATTALNFLHLYHTIILCHTSEKKEILSLDKLEAQLKACNCRILFSKAKPSVLALCLLNLEVETLKSVELLE
ILLLVKKHISKINDTEFFYWRELVSCLAIEYSSPECCKPDLKKLVWIVSRRTAQNHLNSYYSVPELPTIPEGGCFD
ESESIEDSCEDMSCGEESLSSSPSDQECTFFNFKVAQTLCFPS

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FIGURE 255

GGCGGACCGAAGAACGCAGGAAGGGGGCCGGGGGGACCCGCCCCCGGCCGCGCAGCCATGAACTCCAACGTGG
 AGAACCTACCCCGCACATCATCCGCCTGGTGTACAAGGAGGTGACGACACTGACCGCAGACCCACCCGATGGCA
 TCAAGGTCTTTCCCAACGAGGAGGACCTCACCGACCTCCAGGTCACCATCGAGGGCCCTGAGGGGACCCCATATG
 CTGGAGGTCTGTTCCGCATGAAACTCCTGCTGGGGAAGGACTTCCCTGCCTCCCCACCCAAGGGCTACTTCCTGA
 CCAAGATCTTCCACCCGAACGTGGGCGCCAATGGCGAGATCTGCGTCAACGTGCTCAAGAGGGACTGGACGGCTG
 AGCTGGGCATCCGACACGTACTGCTGACCATCAAGTGCCTGCTGATCCACCCTAACCCCGAGTCTGCACTCAACG
 AGGAGGCGGGCCGCCTGCTCTTGGAGAACTACGAGGAGTATGCGGCTCGGGCCCGTCTGCTCACAGAGATCCACG
 GGGGCGCCGGCGGGCCAGCGGCAGGGCCGAAGCCGCTCGGGCCCTGGCCAGTGGCACTGAAGCTTCCTCCACCG
 ACCCTGGGGCCCCAGGGGGCCCGGGAGGGGCTGAGGTTCCCATGGCCAAGAAGCATGCTGGCGAGCGCGATAAGA
 AGCTGGCGGCCAAGAAAAAGACGGACAAGAAGCGGGCGCTGCGGGCGCTGCGGCGGCTGTAGTGGGCTCTCTTC
 TCCTTCCACCGTGACCCCAACCTCTCCTGTCCCCTCCCTCCAACCTCTGTCTCTAAGTTATTTAAATTATGGCTGG
 GGTGCGGGAGGGTACAGGGGGCACTGGGACCTGGATTTGTTTTTCTAAATAAAGTTGGAAAAGCA

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FIGURE 256

MNSNVENLPPHIIRLVYKEVTTLTADPPDGIKVFPNEEDLTDLQVTIEGPEGTPYAGGLFRMKLLLGKDFPASPP
KGYFLTKIFHPNVGANGEICVNVVKRDWTAELGIRHVLLTIKCLLIHPNPESALNEEAGRLLLENYEEYAARARL
LTEIHGGAGGPPSGRAEAGRALASGTEASSTDPGAPGGPGGAEGPMAKKHAGERDKKLAAKKKTDKKRALRALRRL

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FIGURE 257A

ATTGAGCCGGTGC GCGCGGCGGGGAGGCAGTGGCTGGGGAGTCCCGTCGACGCTCTGTTCCGAGAGCGTGCCC
CGGACCGCCAGCTCAGAACAGGGGCAGCCGTGTAGCCGAACGGAAGCTGGGAGCAGCCGGGACTGGTGGCCCCGG
CCCGAGCTCCG CAGGCGGGAAGCACCTTGGATTTGGGAAGTCCCGGAGCAGCGCGGCGGCACCTCCCTCACCCA
AGGGGCCGCGGCGACGGTCACGGGGCGCGGCCACCGTGAGCGACCCAGGCCAGGATTCTAAATAGACGGCCCA
GGCTCCTCCTCCGCCCCGGGCGCCTCACCTGCGGGCATTGCCGCGCCGCTCCGCGGTGTAGACGGCACCTGCG
CCGCTTGTCTCGCGGGTCTCCGCCCTCGCCACCCTCACTGCGCCAGGCCAGGCAGCTCACCTGTACTGGCGC
GGGCTGCGGAAGCCTGCGTGAGCCGAGGCGTTGAGGCGCGGCGCCACGCCACTGTCCCGAGAGGACGCAGGTGG
AGCGGGCGCGGCTTCGCGGAACCCGGCGCCGGCCGCGCAGTGCTCCAGCCTACACCGGGTTCCGGGGACCCGG
CCGCCAGTGCCCCGGGGAGTAGCCGCCCGCTCGGCTGGGCACCAATGAACAGCAGCAGCGCCAACATCACCTACGC
CAGTCGCAAGCGGCGGAAGCCGGTGCGAGAAAACAGTAAAGCCAATCCCAGCTGAAGGAATCAAGTCAAATCCTTC
CAAGCGGCATAGAGACCGACTTAATACAGAGTTGGACCGTTTGGCTAGCCTGCTGCCTTTCCACAAGATGTTAT
TAATAAGTTGGACAACTTTTCACTTCTTAGGCTCAGCGTCAGTTACCTGAGAGCCAAGAGCTTCTTTGATGTTGC
ATTAATACTCTCCCTACTGAAAGAAACGGAGGCCAGGATAACTGTAGAGCAGCAAATTTAGAGAAGGCCTGAA
CTTACAAGAAGGAGAATTCTTATTACAGGCTCTGAATGGCTTTGTATTAGTTGTCACCTACAGATGCTTTGGTCTT
TTATGCTTCTTCTACTATACAAGATTATCTAGGGTTTCAGCAGTCTGATGTCATACATCAGAGTGTATATGAAT
TATCCATACCGAAGACCGAGCTGAATTTTACGCGTCAGCTACACTGGGCATTAAATCCTTCTCAGTGTACAGAGTC
TGGACAAGGAATTGAAGAAGCCACTGGTCTCCCCCAGACAGTAGTCTGTTATAACCCAGACCAGATTCTCTCAGA
AAACTCTCCTTTAATGGAGAGGTGCTTCATATGTCGTCTAAGGTGTCGTCTGGATAATTCATCTGGTTTTCTGGC
AATGAATTTCCAAGGGAAGTTAAAGTATCTTCATGGACAGAAAAAGAAAGGGAAGATGGATCAATACTTCCACC
TCAGTTGGCTTTGTTTGCATAGCTACTCCACTTCAGCCACCATCCATACTTGAAATCCGGACCAAAAAATTTTAT
CTTTAGAACCAAAACACAACTAGACTTCACACCTATTGGTTGTGATGCCAAAGGAAGAATTGTTTTAGGATATAC
TGAAGCAGAGCTGTGCACGAGAGGCTCAGGTTATCAGTTTATTCATGCAGCTGATATGCTTTATTGTGCCGAGTC
CCATATCCGAATGATTAAAGACTGGAGAAAGTGGCATGATAGTTTCCGGCTTCTTACAAAAACAACCGATGGAC
TTGGGTCCAGTCTAATGCACGCCTGCTTTATAAAAAATGGAAGACCAGATTATATCATTGTAACCTCAGAGACCACT
AACAGATGAGGAAGGAACAGAGCATTACGAAAACGAAATACGAAGTTGCCTTTTATGTTTACCCTGGAGAAGC
TGTGTTGTATGAGGCAACCAACCTTTTCTGCCATAATGGATCCCTTACCCTAAGGACTAAAAATGGCACTAG
TGGAAAAGACTCTGCTACCACATCCACTCTAAGCAAGGACTCTCTCAATCCTAGTTCCCTCCTGGCTGCCATGAT
GCAACAAGATGAGTCTATTTATCTCTATCCTGCTTCAAGTACTTCAAGTACTGCACCTTTTGAAAACAACCTTTT
CAACGAATCTATGAATGAATGCAGAAATTGGCAAGATAATACTGCACCGATGGGAAATGATACTATCCTGAAACA
TGAGCAAATTGACCAGCCTCAGGATGTGAATCATTGCTGGAGGTCACCCAGGGCTCTTTCAAGATAGTAAAAA
CAGTGACTTGTACAGCATAATGAAAAACCTAGGCATTGATTTTGAAGACATCAGACACATGCAGAATGAAAAATT
TTTCAGAAATGATTTTCTGGTGAGGTTGACTTCAGAGACATTGACTTAACGGATGAAATCCTGACGTATGTCCA
AGATTCTTTAAGTAAGTCTCCCTTCATACCTTCAGATTATCAACAGCAACAGTCCTTGGCTCTGAACTCAAGCTG
TATGGTACAGGAACACCTACATCTAGAACAGCAACAGCAACATCACCAAAAGCAAGTAGTAGTGAGCCACAGCA
ACAGCTGTGTCAGAAGATGAAGCACATGCAAGTTAATGGCATGTTTGAAAATTGGAACCTTAACCAATTTCGTGCC
TTTCAATTGTCCACAGCAAGACCCACAACAATATAATGTCTTTACAGACTTACATGGGATCAGTCAAGAGTTCCC
CTACAAATCTGAAATGGATTCTATGCCTTATACACAGAACTTTATTTCTGTAAATCAGCCTGTATTACCACAACA
TTCCAAATGTACAGAGCTGGACTACCCTATGGGGAGTTTTGAACCATCCCCATACCCCACTACTTCTAGTTTTAGA
AGATTTTGTCACTTGTTTACAACCTCCTGAAAACCAAAAGCATGGATTAAATCCACAGTCAGCCATAATAACTCC
TCAGACATGTTATGCTGGGGCCGTGTGATGTATCAGTGCCAGCCAGAACCTCAGCACACCCACGTGGGTCAGAT
GCAGTACAATCCAGTACTGCCAGGCCAACAGGCATTTTAAACAAGTTTCAGAATGGAGTTTTAAATGAAACATA
TCCAGCTGAATTAAATAACATAAATAACACTCAGACTACCACACATCTTCAGCCACTTCATCATCCGTGAGAAGC
CAGACCTTTTCTGATTTGACATCCAGTGGATTCTGTTAATTTCCAAGCCCAATTTTGACCCTGGTTTTTGGATTA
AATTAGTTTGTGAAGGATTATGGAAAAATAAACTGTCACTGTTGGACGTCAGCAAGTTCACATGGAGGCATTGA
TGCATGCTATTACAAATTATTCCAAACCAATTTTAAATTTTGGCTTTTAGAAAAGGGAGTTTTAAATGGTATCA
AAATTACATATACTACAGTCAAGATAGAAAGGTGCTGCCACGGAGTGGTGAGGTACCGTCTACATTTACATTA
TTCTGGGCACCACAAAATATACAAAACCTTTATCAGGGAACTAAGATTCTTTTAAATTAGAAAATATTCTCTATT
TGAATTATTTCTGTCACAGTAAAAATAAAATACTTTGAGTTTTGAGCTACTGGATTCTTATTAGTTCCCCAAATA

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FIGURE 257B

CAAAGTTAGAGAACTAAACTAGTTTTTCCTATCATGTTAACCTCTGCTTTTATCTCAGATGTTAAAATAAATGGT
TTGGTGCTTTTTATAAAAAGATAATCTCAGTGCTTTCCTCCTTCACGTTCATCTAAGTGCCTCACATTTTTTT
CTACCTATAACACTCTAGGATGTATATTTTATATAAAGTATTCTTTTTCTTTTTTAAATTAATATCTTTCTGCAC
ACAAATATTATTTGTGTTTTCTAAATCCAACCAATTTTCATTAATTCAGGCATATTTTAACTCCACTGCTTACCT
ACTTTCTTCAGGTAAAAGGGCAAATAATGATCGAAAAATAATTATTATTACATAATTTAGTTGTTTTCTAGACT
ATAAATGTTGCTATGTGCCTTATGTTGAAAAATTTAAAAGTAAAATGTCTTTCCAAATTATTTCTTAATTATTA
TAAAAATATTAAGACAATAGCACTTAAATTCCTCAACAGTGTTTTTCAGAAGAAATAAATATACCACTCTTTACCT
TTATTGATATCTCCATGATGATAGTTGAATGTTGCAATGTGAAAAATCTGCTGTTAACTGCAACCTTGTTTATTA
AATTGCAAGAAGCTTTATTTCTAGCTTTTTTAATTAAGCAAAGCACCCATTTCAATGTGTATAAATTGCTTTTAAA
AACTGTTTTAGACCTATAATCCTTGATAATATATTGTGTTGACTTTATAAATTCGCTTCTTAGAACAGTGGA
CTATGTGTTTTTCTCATATTTGAGGAGTGTTAAGATTGCAGATAGCAAGGTTTGGTGCAAAGTATTGTAATGAGT
GAATTGAATGGTGCATTGTATAGATATAATGAACAAAATTATTTGTAAGATATTTGCAGTTTTTCATTTTAAAA
GTCCATACCTTATATATGCACTTAATTTGTTGGGGCTTTACATACTTTATCAATGTGTCTTTCTAAGAAATCAAG
TAATGAATCCAACCTGCTTAAAGTTGGTATTAATAAAAAGACAACCACATAGTTCGTTTACCTTCAAACCTTAGGT
TTTTTTAATGATATACTGATCTTCATTACCAATAGGCAAATTAATCACCCCTACCAACTTTACTGTCCTAACATGG
ACTTTCAAAAAGAAAAATGACACCATCTTTTATTCTTTTTTTTTTTTTTTTTTTTGGAGAGAGAGTCTTACTCTGC
CGCCCAAACCTGGAGTGCAGTGGCACAATCTTGGCTCACTGCAACCTCTACCTCCTGGGTTCAGTGATTCTCTTG
CCTCAGCCTCCCGAGTTGCTGGGATTGCGGGCATGGTGGCGTGAGCCTGTAGTCCTAGCTACTCGGGAGGCTGAG
GCAGGAGAATAGCCTGAACCTGGGAATCGGAGGTTGCAGGGCCAAGATCGCCCCACTGCACTCCAGCCTGGCAAT
AGACCGAGCTCCGTCTCCAAAAAATAACAATTTTTATTCTTTTACTTTTTTTTAGTAAGTTAATGTATATA
AAAATGGCTTCGGACAAAATATCTCTGAGTTCTGTGTATTTTCAGTCAAACTTTAAACCTGTAGAATCAATTTA
AGTGTTGAAAAAATTTGTCTGAAACATTTTATAATTTGTTTCCAGCATGAGGTATCTAAGGATTTAGACCAGAG
GTCTAGATTAATACTCTATTTTTACATTTAAACCTTTTATTATAAGTCTTACATAAACCATTTTTGTTACTCTCT
TCCACATGTTACTGGATAAATTGTTTGTAGTGAAATAGGCTTTTAAATCATGAATATGATGACAATCAGTTATAC
AGTTATAAAATTAAGTTTGAAGCAATATTGTATATTTTATCTATATAAAATAACTAAAATGTATCTAAGA
ATAATAAAATCACGTAAACC

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FIGURE 258

MNSSSANITYASRKRKRPVQKTVKPIPAEGIKSNPSKRHRDRLNTELDRLASLLPFPQDVINKLDKLSVLRLSVS
YLRAKSFFDVALKSSPTERNGGQDNCRAANFREGNLQEGEFLQALNGFVLVVTDALVFYASSTIQDYLGFQQ
SDVIHQSVYELIHTEDRAEFQRQLHWALNPSQCTESGQGIEEATGLPQTVVCYNPDQIPPENSPLMERCFCICRLR
CLLDNSSGFLAMNFQGKLKYLHGQKKKGKDGSI LPPQLALFAIATPLQPPSILEIRTKNFIFRTKHKLDFTPIGC
DAKGRIVLGYTEAELCTRGSYQFIHAADMLYCAESHIRMIKTGESGMIVFRLTKNNRWTWVQSNARLLYKNR
PDYIIIVTQRPLTDEEGTEHLRKRNTKLPFMFTTGEAVLYEATNPFPAIMDPLPLRTKNGTSGKDSATTSTLSKDS
LNPSSLLAAMMQQDESIYLYPASSTSSTAPFENNFFNESMNECRNWQDNTAPMGNDTILKHEQIDQPQDVNSFAG
GHPGLFQDSKNSDLYSIMKNLGIDFEDIRHMONEKFFRNDFSGEVDFRDIDLTDEILTYVQDSLSPFIPSDYQ
QQQSLALNSSCMVQEHLHLEQQQHHQKQVVVEPQQQLCQKMKHMQVNGMFENWNSNQFVPFNCPPQDPQQYNVF
TDLHGISQEFYPYKSEMDSMPTQNFISCNQPVLPQHASKCTELDYPMGSEFSPYPTTSSLEDFTCLQLPENQKH
GLNPQSAIITPQTCYAGAVSMYQCQPEPQH THVGMQYNPVLPGQQAFLNKFQNGVLNETYPaelNNINNTQTTT
HLQPLHHPSEARPFDPDLTSSGFL

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FIGURE 259

AGCTGGCTGAGAGGGGACTGGGCGCCGGCGGGGAAGGAGGAGCGCTAGGTCGGTGTACGACCGAGATTAGGGTGC
GTGCCAGCTCCGGGAGGCCGCGGTGAGGGGCCGGGCCCAAGCTGCCGACCCGAGCCGATCGTCAGGGTCGCCAGC
GCCTCAGCTCTGTGGAGGAGCAGCAGTAGTCGGAGGGTGCAGGATATTAGAAATGGCTACTCCCCAGTCAATTTT
CATCTTTGCAATCTGCATTTTAATGATAACAGAATTAATTCTGGCCTCAAAAAGCTACTATGATATCTTAGGTGT
GCCAAAATCGGCATCAGAGCGCCAAATCAAGAAGGCCTTTCACAAGTTGGCCATGAAGTACCACCCTGACAAAA
TAAGAGCCCGGATGCTGAAGCAAAATTCAGAGAGATTGCAGAAGCATATGAAACACTCTCAGATGCTAATAGACG
AAAAGAGTATGATACACTTGGACACAGTGCTTTTACTAGTGGTAAAGGACAAAGAGGTAGTGGAAGTTCTTTTGA
GCAGTCATTTAACTTCAATTTTGATGACTTATTTAAAGACTTTGGCTTTTTTGGTCAAAACCAAAACACTGGATC
CAAGAAGCGTTTTGAAAATCATTTCCAGACACGCCAGGATGGTGGTTCCAGTAGACAAAGGCATCATTTCCAAGA
ATTTTCTTTTGGAGGTGGATTATTTGATGACATGTTTGAAGATATGGAGAAAATGTTTTCTTTTAGTGGTTTTGA
CTCTACCAATCAGCATACAGTACAGACTGAAAATAGATTTTCAATGGATCTAGCAAGCACTGCAGGACTGTCCTCA
ACGAAGAGGAAAATATGGTTACTACATACACTGACTGTTTCCAGGACAGTAGTTCTTATTCTATTCTCACTAAATCCA
ACTGGTTGACTCTTCCTCATTATCTTTGATGCTAAACAATTTTCTGTGAAGTATTTTGACAAGTGCATGATTCA
CTTTAAACAATTTGATATAGCTATTAAATATATTTAAGGGTTTTTTTTTTTTTGACAAATTCAACATTCAACGAGT
AGACAAAATGCTAATTATTTCCCTGATTAGGAAAGTTTCTTTAAAAAACACGTAATTTGCCTAGTGCTTTTTCT
CTACCTGCCCTTGGGCTCACTAATATCACCAGTATTATTACCAAGAAAATATTGAGTTTACCTGATTAACTTTA
AAAGTTAATTGTAGATTTAAATTGTGTGAACCTAATGATTTTTGCAGTGAAACCTTTACTAATTCAAAGTTGCAT
GTTCTATGACATCTGTGACTTGCCTTGCAGAGTGATGAACTGTATAATTGAGTCATTGAGTAAAGGAGAAC
AGTATCTTGGTTAATTGCTACTGAAAGGTTGAGAAAGGAATGGTTTGATATTTACCACAGCGCTGTGCCTTTCTA
CAGTAGAACTGGGGTAAAGGAAATGGTTTTATTGCCCATAGTCATTTAGGCTGGAAAAAGTTGAAAACTTAACG
AAATATTGCCAAGAGATTGTTATGTGTTTGGTTCCAGCCTAAAAATGATTTTGTAGTGTGAAATCATAGCTACT
TACATAGCTTTTTCATATTTCTTTCTTAGTTGTTGGCACTCTTAGGTCTTAGTATGGATTTATGTGTTTGTGTGT
GTGTAGTTTATCCTCTCTCTCATCTTTATCTAGAGATTGACTGATACCTCATTCTGTTTGTAACCAAGCCAGTA
ATTTCTGTGCAACCTTACTATGTGCAATATTTTTAAATCCTGAGAAATGTGTGCTTTTGTTCGGATAGACTTA
TTTCTTTAGTTCTGCACTTTTCCACATTATACTCCATATGAGTATTAATCCTATGGATACATATTAAAAACAAGTG
TCTCATACAACATTGTATGTGAGAGAAATATAAATATTTACAACCTGATATTCGTTGTTGTTTTATTGTTAAAAAG
TTTATTATGCAACTCTGGAGGTATAGAGGGCATATAAGCTATGGGACATATGCTGATCACAGGCTATATTTCATGA
AGTTACTTTTGACCAACCTGAAAACCTGATAGGATTTTGTGTTGTCATTTGGTAATTTCTACTGCATTCTTACCATC
CTTCTCTCAAAATTTTGATAGCTTGAAGATCTTTTAATTATAATTTGTTGTATTTGTTTCCTAGGAGCAAGT
GTTCTGCTGCCAGTTCTTTCTCTTTAGGCGTGGTTGAGAAAAAGCAGAACTTTACATAAAGCTGTATTTCTT
AATCATCTTTAATTTGAAACTTAAGAAAATGAATTTATTCTGTTATATTTATGTAACCTATTTCTGGAAGTTAT
ATCTACTAGTTTTGTTTGATAATAATAAAATTAGCTATACCTTGAA

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FIGURE 260

MATPQSIFIFAICILMITELILASKSYDILGVPKSASERQIKKAFHKLAMKYHPDKNKSPDAEAKFREIAEAYE
TLSDANRRKEYDTLGHSFTSGKGQRGSGSSFEQSFNFNFDLFDKDFGFFGQNQNTGSKKRFENHFQTRQDGGSS
RQRHHFQEFSGGGGLFDDMFEDMEKMFSGFDSTNQHTVQTENRFHGSSKHCRVTQRRGNMVTITYTDCSGQ

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FIGURE 261

AGGAAATGGTTTCTGGAAAACGTTAGTAAGGTCAGTTTTTAAACACTGAATCCAAGGTTGTCTTCTGGAATATCC
AAATTGGTTATGACCAGAATGTGATTCAATTATACTAAGCTAAAGGAATAGATTAAAGAATTAGCAACAGTGGCCG
GGTGACAGTGGCTCATGCCTGTAACCCAGCACTTTGGGGGAGGCCAGGTGGGTGGATCATTGAGGTCAGGAGT
TTGAGACCAGCCTGGCCAACATGGTGAAACCTAAAAATACAAAAATTAGCCAGGTGTGGTGGCAGGTGCTTGTA
TCCCAGCTGCTTGGGAGGCTGAAGCAGGAGAATTGCTTGAACCCGGAGGCAGGGGTTGCAGTGAGCCAAGATCAC
ACCATTGCACTCCAGCCTGGGTGGCAGAGTGAGACTCTGTCTCAAAAAATTAAAAAGCAACAGTGTATATGCAATA
GTTGCAAGATGTAAGATCACCCAAAGAGTATGCAGAGGGAAATGAGGGACAGAACCCAGAAATATTAATACCCAG
GGAGTGAACAGGAGGAGGACCCCAAGAAGTTACTGAGTCAGATTTTTCCCACTCATCCAGGTGAAAGTTTAGGTC
AATAATGTGAAATACCAGAGGGATTAAATGTCTACAGAAATAAAACCATGTCTCACATTAAGACAAACAAGTAGG
TTGGAGGGATATTTTGAAAGGCAAGGTGATATTAACTTTATTCTGAAAAGTAGTTTGTTAGAGAAAGAGGCATGA
TAAGAGTTGCAGTTAACTGATTGGAACCTATGCAGCAGATGAACTGGAATAAAGGAACTCATCAGGAAATGAT
TATAGTAATAAGGGCCAGAAATAAGGGCTTGCTTGCTGAACTAAAAACAAAGAGGATACAAAGGTTCTAGAAAT
ATTTCAAAGGAATTAGCTTTAATTCAGCAATACTCATTGAGAATCACCTATGCACCTGGCTCTGAAGATGAAGTG
CTGAGTAACTTAGACATGGACCCTGCTATCATGGAGATGGCAGATTATTGGTCAGAATGCTCTTACCTGTCATT
GTAGCAATTTTGTTAGATCCTTAATACCTCTGAATTGCTAATAAACTTGTTTTGGCTGAAAAAATAGTCCTGTGA
ATTTTACCATGCAGTTAAATAAGAACTAAAAGCAAACCTAAATACCACCAAAAAGGTTAGTAGTCTGTTATATG
CATTAGCCTTAATCTAAGGAAATATTTTATTATAGGTCTCCTTGAAGAAAATGATATTTTCAGGAATGCTCAAGC
AGGTGTTCTCATCAGCACTAATAGTCATCCAATCTTAAGGAAAAACAGAATATTTGATGGATTTGCCGCAGGTAT
TGAAATTACAAATCACGCAACTGCAACACTAGAAGGCAATCAGATTTTAAACAACCGGTTTGGAGGCTTATTTTT
AGCATCTGGTGTTAATGTGACAATGAAAGATAACAAAATAATGAACAATCAAGATGCCATAGAAAAGGCTGTTAG
TAGAGGCCAATGTTTATATAAAATATCAAGTTATACCAGCTATCCCATGCATGATTTCTACAGATGTCATACTTG
TAACACCACAGATCGAAATGCCATATGTGTGAACCTGCATTAAGAAGTGCCATCAGGGACATGATGTAGAGTTTAT
TAGACATGATAGGTATGTAGCACACTTGCTTGATATATTACCCAATTACTTTCCCCCTCACTTTTCTAATATTTG
GGTTTCATTTTGCTTTAGGTTTTCTGTGACTGTGGTGCTGGAACACTGTCTAATCCTTGACATTAGCTGGTGA
GCCTACACATGATACAGATACACTATATGACTCTGCTCCACCTATAGAATCTAATACATTGCAGCACAACTGAAT
TCCTTCCCTAAAGAAAAAGTCCTGCCATTGTAACATCATAACTTAAAAACACTTTTTTGGAAGAAGATTTAAAAATA
TTTGCCCATGCTACAGGAAGAGACTGTATTAAAAATGGATACACAAGGTCAGTTGACACTATGAAGCTCAAGCTA
CCAAAAAGAAAGTGCAATATATTGACTCAGGATCTCAAAGCTGGGTGTTTTAGCATTACTGTGTAAAGACTTGA
AGGGACAGAAGTGAAGAAAAATAAGCTGCAATTTTGACAGATACCAACTTCTGAAAAGCTGGTGTTTTTACAAC
AGCATTGAATGCAGTCCAATTTGCAGTAGTAATCTTCAATAGACAAGCAGCTTTGTTGCTGCCTTTATGGACATG
GGTACCAATTGCTTTTGTAATATGGTAAAAATGTGAGCTAGCACTTCTGCGTTCCTTTTGATTTTTTTTTTTTAA
CATGTATTAGATTGAGAAATATGATTTTAAATGCCTTAATCTCATGTAGTTTGTTTTTAATTTCAAGCAAAATCT
TACTGTACTTGAATGTGCCCTGTTTTGTTAGCACACCTAGACTTGCTGTAACCTGACTCATGTCCCAGTATGTAC
GTTCTTTCTATGAAAGAGAAAACTAATCTTAAATTATATCCAGCAATGTTTCTGGTATCCTTTAAGAAAAGTT
AAGACTATTATTTCCCTTCCCTTCCCTGTGCAGCATTCAAAAAATCACCCCTAGAAAAAGTGAGTGTTTAATGAGA
CTTCTAGGAAGGGATGCACTGTAAAACAAAAGTATTCTTGTAACCTCAGTTTTGTGAAAGGTAAAAAACTACTAT
GTTTTAAGTACACTTTAGAAAGTCTCTTCAAAACAAACAGTCCGTGATTTGAACTCTGTTCATAGTTTTTTTTTG
AACAGTTTAGACAAAACCTGTTGGAATTAACCAATTTCCCTGCATTAAGCTGAGACAAGTATATAAACAGCCCTA
TACAGTTTCATAGCTTTTCCCTCCCCATTTATGTGTATTGGTGACAGTGGGTATAAACAGCCTGAAAGTGTATG
CATGTACCATAACATTTAGACTTAATATATTGTGGAGTATTCAATAACCATTATGTAGAAGGTAGATAAGAATTA
AAAGGGTTTAATTTCCCTAGAAAAGAAATGGAAAAATGGTCATTTTTAAAAAATAAAGTTTATTAGATCATAATGT
TGTCTGAATTTACCACCTTTGTCAGAAGTCAACTCAAAGCTTCCAATGTAGTCAGTCTATAATTCCTTAATCAAA
GTCAGCAATTTATGGACAGCTTCAGCAATTTACAGTTGACCTTTCACTAGCCAGGCAAACCTCCCTTAAATTTAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 262

MKDNKIMNNQDAIEKAVSRGQCLYKISSYTSYPMHDFYRCHTCNTTDRNAICVNCIKKCHQGHDFEFIRHDRVVA
HLLDILPNYFPPHFSNIWVSFCFRFFCDCGAGTLSNPCTLAGEPTHDTDTLYDSAPPIESNTLQHN

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FIGURE 263

CGCGCCCTCCCTCCTCGCGGACCTGGCGGTGCCGGCGCCCGGAGTGGCCCTTTAAAAGGCAGCTTATTGTCCGG
AGGGGGCGGGCGGGGGCGCCGACCGCGGCCTGAGGCCCGGCCCTCCCTCTCCCTCCCTCTGTCCCCGCGTCG
CTCGCTGGCTAGCTCGCTGGCTCGCTCGCCCGTCCGGCGCACGCTCCGCTCCGTTCAGTTGGCTCCGCTGTCCGG
TGCGCGGCGTGGAGCGGCAGCCGGTCTGGACGCGCGGGCGGGGCTGGGGGCTGGGAGCGCGGCGCGCAAGATCTC
CCGCGCGAGAGCGGCCCTGCCACCGGGCGAGGCCTGCGCCGCGATGCGCAGAGATGGGCAGTAAAGGGGTGACG
GCGGGAAAGATCGCCAGCAACGTGCAGAAGAAGCTCACCCGCGCGCAGGAGAAGGTTCTCCAGAAGCTGGGGAAG
GCAGATGAGACCAAGGATGAGCAGTTTGAGCAGTGCCTCAGAATTTCAACAAGCAGCTGACGGAGGGCACCCGG
CTGCAGAAGGATCTCCGGACCTACCTGGCCTCCGTCAAAGCCATGCACGAGGCTTCCAAGAAGCTGAATGAGTGT
CTGCAGGAGGTGTATGAGCCCGATTGGCCCGGAGGATGAGGCAACAAGATCGCAGAGAACAACGACCTGCTG
TGGATGGATTACCACCAGAAGCTGGTGGACCAGGCGCTGCTGACCATGGACACGTACCTGGGCCAGTTCCTCCGAC
ATCAAGTCACGCATTGCCAAGCGGGGGCGCAAGCTGGTGGACTACGACAGTGGCCGGCACCACTACGAGTCCCTT
CAAAGTCCCAAAAAGAAGGATGAAGCCAAATTTGCCAAGGCCGAGGAGGAGCTCATCAAAGCCCAGAAGGTGTTT
GAGGAGATGAATGTGGATCTGCAGGAGGAGCTGCCGTCCCTGTGGAACAGCCGCGTAGGTTTTCTACGTCAACACG
TTCCAGAGCATCGCGGGCCTGGAGGAAAACCTTCCACAAGGAGATGAGCAAGCTCAACCAGAACCTCAATGATGTG
CTGGTCCGCTGGAGAAGCAACACGGGAGCAACACCTTACGGTCAAGGCCAGCCAGCCAGAAAGAAAAGTAAACTG
TTTTCGCGGCTGCGCAGAAAGAAGAACAGTGACAACGCGCCTGCAAAAGGGAACAAGAGCCCTTCGCCTCCAGAT
GGCTCCCTGCGGCCACCCCGAGATCAGAGTCAACCACGAGCCAGAGCCGGCCGGCGGGGCCACGCCCCGGGGCC
ACCTCCCAAGTCCCATCTCAGCCAGCAGAGGCCTCGGAGGTGGCGGTGGGACCCAACCTGCGGCTGGAGCC
CAGGAGCCAGGGGAGACGGCGGCAAGTGAAGCAGCCTCCAGCTCTCTTCTGCTGCTGCTGGTGGAGACCTTCCCA
GCAACTGTGAATGGCACCCTGGAGGGCGGCAGTGGGGCCGGGCGCTTGGACCTGCCCCAGGTTTCATGTTCAAG
GTACAGGCCACGACGACTACACGGCCACTGACACAGACGAGCTGCAGCTCAAGGCTGGTGTGTGGTGGTGGTGGT
ATCCCTTCCAGAACCCTGAAGAGCAGGATGAAGGCTGGCTCATGGGCGTGAAGGAGAGCGACTGGAACCAGCAC
AAGGAGCTGGAGAAGTGCCGTGGCGTCTTCCCCGAGAACTTCACTGAGAGGTCCCATGACGGCGGGGCCAGGC
AGCCTCCGGGCGTGTGAAGAACCTCCTCCCGAAAAATGTGTGGTTCTTTTTTTGTTTTGTTTTGTTTTCA
TCTTTTGAAGAGCAAAGGGAATCAAGAGGAGACCCCCAGGCAGAGGGGCGTTCTCCCAAAGATTAGGTCGTTTT
CCAAAGAGCCGCGTCCCGGCAAGTCCGGCGGAATTCACAGTGTTCTGAAGCTGCTGTGTCTCTAGTTGAGTT
TCTGGCGCCCTGCTGTGCGCGCATGTGTGCTGGCCGAGGGCGGGGCTGGGGGCTGCCGAGCCACCATGCTT
GCCTGAAGCTTCGGCCGCGCCACCCGGCAAGGGTCTCTTTTCTGGCAGCTGCTGTGGGTGGGGCCAGACAC
CAGCCTAGCCTGGCTCTGCCCCGAGACGGTCTGTGTGCTGTTTGAAAATAAATCTTAGTGTTCAAAACAAAATG
AAACAAAAAAAATGATAAAACTCTCAAAAAA

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FIGURE 264

FIGURE 264

MAEMGSGKGVTAGKIASNVQKKLTRAQEKVLQKLGADETKDEQFEQCVQNFNKQLTEGTRLQKDLRXYLASVKAM
HEASKKLINECLQEVYEPDWPGRDEANKIAENNDLLWMDYHQKLVDQALLTMDTYLGQFPDIKSRIAKRGRKLVY
DSARHHYESLQTAKKKDEAKIAKAEELIKAKQVFEEMNVDLQEELPSLWNSRVGFYVNTFQSIAGLEENFHKEM
SKLNQNLNDVLVGLEKQHGSNTFTVKAQPSDNAPAKGNKSPSPDGS PAATPEIRVNHEPEPAGGATPGATLPKS
PSQSSLPVVVETFPATVNGTVEGGSGAGRLDLP PGFMFKVQAQHDYTATDTDELQLKAGDVVLVIPFQNPPEEQD
EGWLMGVKESDWNQHKLEKCRGVFPENF TERVP

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FIGURE 265A

AGATTTGATAATGGGCTGCATTAAAAGTAAAGAAAACAAAAGTCCAGCCATTAAATACAGACCTGAAAATACTCC
AGAGCCTGTCAGTACAAGTGTGAGCCATTATGGAGCAGAACCCACTACAGTGTACCATGTCCGTCTCTTCAGC
AAAGGGAACAGCAGTTAATTTTCAGCAGTCTTTCCATGACACCATTGGAGGATCCTCAGGGGTAACGCCTTTTGG
AGGTGCATCTTCCTCATTTTCAGTGGTGCCAAGTTCATATCCTGCTGGTTTAACAGGTGGTGTACTATATTTGT
GGCCTTATATGATTATGAAGCTAGAACTACAGAAGACCTTTTCAATTAAGAAGGGTGAAAGATTCAAATAATTAA
CAATACGGAAGGAGATTGGTGGGAAGCAAGATCAATCGCTACAGGAAAGAATGGTTATATCCCGAGCAATTATGT
AGCGCCTGCAGATTCCATTTCAGGCAGAAGAATGGTATTTTGGCAAAATGGGGAGAAAAGATGCTGAAAGATTACT
TTTGAATCCTGGAAATCAACGAGGTATTTTCTTAGTAAGAGAGAGTGAAACAATAAGGTGCTTATTCCTTTTC
TATTCGTGATTGGGATGAGATAAGGGGTGACAATGTGAAACACTACAAAATTAGGAAACTTGACAATGGTGGATA
CTATATCACAACCAGAGCACAATTTGATACTCTGCAGAAATTGGTGAAACACTACACAGAACATGCTGATGGTTT
ATGCCACAAGTTGACAACCTGTGTGTCCAACCTGTGAAACCTCAGACTCAAGGTCTAGCAAAAGATGCTTGGGAAAT
CCCTCGAGAATCTTTGCGACTAGAGGTTAACTAGGACAAGGATGTTTCGGCGAAGTGTGGATGGGAACATGGAA
TGGAAACCACGAAAGTAGCAATCAAAACACTAAAACCAGGTACAATGATGCCAGAAGCTTTCCTTCAAGAAGCTCA
GATAATGAAAAAATTAAGACATGATAAACTTGTTCCACTATATGCTGTTGTTTCTGAAGAACCAATTTACATTGT
CACTGAATTTATGTCAAAGGAAGCTTATTAGATTTCTTAAGGAAGGAGATGAAAAGTATTTGAAGCTTCCACA
GCTGGTTGATATGGCTGCTCAGATTGCTGATGGTATGGCATATATTGAAAGAATGAACTATATTCACCGAGATCT
TCGGGCTGCTAATATTCTTGTAGGAGAAAATCTTGTGTGCAAAATAGCAGACTTGGTTTAGCAAGGTTAATTGA
AGACAATGAATACACAGCAAGACAAGGTGCAAAATTTCCAATCAAATGGACAGCTCCTGAAGCTGCACTGTATGG
TCGGTTTACAATAAAGTCTGATGTCTGGTCAATTTGGAATCTGCAACAGAACTAGTAACAAAGGGCCGAGTGCC
ATATCCAGGTATGGTGAACCGTGAAGTACTAGAACAAGTGGAGCGAGGATACAGGATGCCGTGCCCTCAGGGCTG
TCCAGAATCCCTCCATGAATTGATGAATCTGTGTTGGAAGAAGGACCCTGATGAAAGACCAACATTTGAATATAT
TCAGTCCTTCTTGAAGACTACTTCACTGCTACAGAGCCACAGTACCAGCCAGGAGAAAATTTATAAATTCAGTA
GCCTATTTTATATGCACAAAATCTGCCAAAATATAAAGAACTTGTGTAGATTTTCTACAGGAATCAAAGAAGAAA
ATCTTCTTTACTCTGCATGTTTTTAATGGTAAACTGGAATCCCAGATATGGTTGCACAAAACCACTTTTTTTTCC
CCAAGTATTAAACTCTAATGTACCAATGATGAATTTATCAGCGTATTTTCAGGGTCCAAACAAAATAGAGCTAAGA
TACTGATGACAGTGTGGGTGACAGCATGGTAATGAAGGACAGTGAGGCTCCTGCTTATTTATAAATCATTTCTTT
TCTTTTTTTCCCCAAAGTCAGAATTGCTCAAAGAAAATTATTTATTGTTACAGATAAAACTTGAGAGATAAAAAG
CTATACCATAATAAAATCTAAAATTAAGGAATATCATGGGACCAAATAATTCCATTCCAGTTTTTTTAAAGTTCT
TGCATTTATTATTCTCAAAGTTTTTTCTAAGTTAAACAGTCAGTATGCAATCTTAATATATGCTTTCTTTTGCA
TGGACATGGGCCAGGTTTTTCAAAGGAATATAAACAGGATCTCAAACCTGATTAAATGTTAGACCACAGAAGTG
GAATTTGAAAGTATAATGCAGTACATTAATATTCATGTTTCATGGAAGTAAAGAAATAAGAACTTTTTCACTTCAG
TCCTTTTCTGAAGAGTTTGACTTAGAATAATGAAGGTAAGTAAAGTGAAGTAAATCTTGTATGAGGTTGCATTG
ATTTTTTAAGGCAATATATAATTGAAACTACTGTCCAATCAAAGGGGAAATGTTTTGATCTTTAGATAGCATGCA
AAGTAAGACCCAGCATTTTAAAAGCCCTTTTTTAAAACACTAGACTTCGTACTGTGAGTATTGCTTATATGTCCTTA
TGGGGATGGGTGCCACAAATAGAAAATATGACCAGATCAGGGACTTGAATGCACTTTTGCTCATGGTGAATATAG
ATGAACAGAGAGGAAAATGTATTTAAAAGAAATACGAGAAAAGAAAATGTGAAAGTTTACAAGTTAGAGGGATG
GAAGGTAATGTTTAAATGTTGATGTCATGGAGTGACAGAATGGCTTTGCTGGCACTCAGAGCTCCTCACTTAGCTA
TATTCGTAGACTTTGAAGAGTTATAAAGTATAACTATAAACTAATTTTTTCTTACACACTAAATGGGTATTTGTT
CAAAATAATGAAGTTATGGCTTCACATTCATTGCAGTGGGATATGGTTTTTATGTAAAACATTTTGAAGTCCCA
GTTTTCAAATCATGTTTGAATCTACATTCATTTTTTTTTGTTTTCTTTTTTGAGACGGAGTCTCGCTCTGCCGCC
CAGGCTGGAGTGCAAGTGGCGGATCTCGGCTCACTGCAAGCTCTGCCTCCCAGGTTTACACCATTCTCCTGCCTC
AGCCTCCCAGTAGCTGGGACTACAGGTGCCACCACCACGCCTGGCTAGTTTTTTGTATTTTGTAGTAGAGACGC
AGTTTCACCGTGTAGCCAGGATGGTCTCGATCTCCTGACCTTGTGATCTGCCCCGCTCGGCCTCCCAAAGTGCT
GGGATTACAGGCGTGAGCCACCGCGCCAGCCTACATTCATTTCTAAAGTCTATGTAATGGTGGTCATTTTTTCC
CTTTTAGAATACATTAAATGGTTGATTTGGGGAGGAAAACCTTATTCTGAATATTAACGGTGGTGAAGGGGACA
GTTTTTACCCTAAAGTGCAAAAGTGAACATACAAAATAAGACTAATTTTTAAGAGTAACTCAGTAATTTCAAAA
TACAGATTTGAATAGCAGCATTAGTGGTTTGAGTGTCTAGCAAAGGAAAAATTGATGAATAAAATGAAGGTCTGG
TGTATATGTTTTAAATACTCTCATATAGTCACACTTTAAATTAAGCCTTATATTAGGCCCTCTATTTTCAGGA

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FIGURE 265B

TATAATTCTTAACATCATTATTTACCTGATTTTAATCATCAGATTCGAAATTCTGTGCCATGGCGTATATGTTT
AAATTCAAACCATTTTTAAATGTGAAGATGGACTTCATGCAAGTTGGCAGTGGTCTGGTACTAAAAATTGTGG
TTGTTTTTCTGTTTACGTAACTGCTTAGTATTGACACTCTCTACCAAGAGGGTCTTCCTAAGAAGAGTGCTGT
CATTATTTCTCTTATCAACAACCTGTGACATGAGATTTTTTAAGGGCTTTATGTGAACATGATATTGTAATTT
TTCTAAGCATATTCAAAAGGGTGACAAAATTACGTTTATGTACTAAATCTAATCAGGAAAGTAAGGCAGGAAAAG
TTGATGGTATTCATTAGGTTTTAACTGAATGGAGCAGTTCCTTATATAATAACAATTGTATAGTAGGGATAAAC
ACTAACTTAATGTGTATTCATTTTAAATTGTTCTGTATTTTTAAATTGCCAAGAAAAACAACCTTTGTAAATTTGG
AGATATTTTCCAACAGCTTTTCGTCTTCAGTGTCTTAATGTGGAAGTTAACCCTTACCAAAAAAGGAAGTTGGCA
AAAACAGCCTTCTAGCACACTTTTTTAAATGAATAATGGTAGCCTAAACTTAATATTTTTATAAAGTATTGTAAT
ATTGTTTTGTGGATAATTGAAATAAAAAGTTCTCATTGAATGCACCTATTAAAAAAAAAAAAAAAAAAAAA

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FIGURE 266

MGCIKSKENKSPAICYRPENTPEPVSTSVSHYGAEP TTVSPCPSSSAKGTAVNFSSLSMTPFGGSSGVTPFGGAS
SSFSVVPSSYPAGLTGGVTIFVALYDYEARTTEDLSFKKGERFQIINNTEGDWWEARS IATGKNGYIPSNYVAPA
DSIQAEWYFGKMGRKDAERLLL NPGNQRGIFLVRESETTKGAYSL SIRDWDEIRGDNVKHYKIRKLDNGGYIT
TRAQFDTLQKLVKHYTEHADGLCHKLT TVCPTVKPQTQGLAKDAWEIPRESLRLEV KLGQGCFGEVWMGTWNGTT
KVAIKTLKPGTMMPEAFLQEAQIMKKLRHDKLVPLYAVVSEEP IYIVTEFMSKGSLLDFLKEGDGKYLKLPQLVD
MAAQIADGMAYIERMNYIHRDLRAANILVGENLVCKIADFG LARLIEDNEYTARQGAKEPIKWTAP EAALYGRFT
IKSDVWSFGILQTELVTKGRVPYPGMVNREVLEQVERGYRMPC PQGCPESLHELMNLCWKKDPDERPTFEYIQSF
LEDYFTATEPQYQPGENL

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FIGURE 267A

AGATTTGATAATGGGCTGCATTAAAAGTAAAGAAAACAAAAGTCCAGCCATTAAATACAGACCTGAAAATACTCC
AGAGCCTGTCAGTACAAGTGTGAGCCATTATGGAGCAGAACCCACTACAGTGTACCATGTCCGTCATCTTCAGC
AAAGGGAACAGCAGTTAATTTTCAGCAGTCTTTCCATGACACCATTGGAGGATCCTCAGGGGTAACGCCTTTTGG
AGGTGCATCTTCCTCATTTTCAGTGGTGCCAAGTTCATATCCTGCTGGTTTAAAGAGGTGGTGTACTATATTTGT
GGCCTTATATGATTATGAAGCTAGAAGTACAGAAGACCTTTTCAATTAAGAAGGGTGAAAAGATTTCAAATAATTAA
CAATACGGAAGGAGATTGGTGGGAAGCAAGATCAATCGCTACAGGAAAGAATGGTTATATCCCGAGCAATTATGT
AGCGCCTGCAGATTCCATTTCAGGCAGAAGAATGGTATTTTGGCAAAATGGGGAGAAAAGATGCTGAAAGATTACT
TTTGAATCCTGGAAATCAACGAGGTATTTTCTTAGTAAGAGAGAGTGAAAACAACTAAAGGTGCTTATTCCTTTT
TATTCGTGATTGGGATGAGATAAGGGGTGACAATGTGAAACACTACAAAATTAGGAACTTGACAATGGTGGATA
CTATATCACAACCAGAGCACAAATTTGATACCTGTCAGAAATTGGTGAAAACACTACACAGAATGCTGATGGTTT
ATGCCACAAGTTGACAACCTGTGTGTCCAACCTGTGAAACCTCAGACTCAAGGTCTAGCAAAAGATGCTTGGGAAAT
CCCTCGAGAATCTTTGCGACTAGAGGTAAACTAGGACAAGGATGTTTCGGCGAAGTGTGGATGGGAACATGGAA
TGGAAACCACGAAAGTAGCAATCAAAACACTAAAACCAGGTACAATGATGCCAGAAGCTTTCCTTCAAGAAGCTCA
GATAATGAAAAAATTAAGACATGATAAACTTGTTCCACTATATGCTGTTGTTTCTGAAGAACCAATTTACATTGT
CACTGAATTTATGTCAAAAGGAAGCTTATTAGATTTCTTAAGGAAGGAGATGAAAAGTATTTGAAGCTTCCACA
GCTGGTTGATATGGCTGCTCAGATTGCTGATGGTATGGCATATATTGAAAGAATGAACTATATTCACCGAGATCT
TCGGGCTGCTAATATTCTTGTAGGAGAAAATCTTGTGTGCAAAATAGCAGACTTGGTTTAGCAAGGTTAATTGA
AGACAATGAATACACAGCAAGACAAGGTGCAAAATTTCCAATCAAATGGACAGCTCCTGAAGCTGCACTGTATGG
TCGGTTTACAATAAAGTCTGATGTCTGGTCATTTGGAATTTCTGCAACAGAACTAGTAACAAAGGGCCGAGTGCC
ATATCCAGGTATGGTGAACCGTGAAGTACTAGAACAAGTGGAGCGAGGATACAGGATGCCGTGCCCTCAGGGCTG
TCCAGAATCCCTCCATGAATTGATGAATCTGTGTTGGAAGAAGGACCCTGATGAAAGACCAACATTTGAATATAT
TCAGTCCTTCTTGGAAGACTACTTCACTGCTACAGAGCCACAGTACCAGCCAGGAGAAAATTTATAATTCAGTA
GCCTATTTTATATGCACAAATCTGCCAAAATATAAAGAAGCTTGTGTAGATTTTCTACAGGAATCAAAAGAAGAAA
ATCTTCTTTACTCTGCATGTTTTTAATGGTAAACTGGAATCCCAGATATGGTTGCACAAAACCACTTTTTTTTCC
CCAAGTATTAACTCTAATGTACCAATGATGAATTTATCAGCGTATTTTCAGGGTCCAAACAAAATAGAGCTAAGA
TACTGATGACAGTGTGGGTGACAGCATGGTAATGAAGGACAGTGAGGCTCCTGCTTATTTATAAATCATTTCCTT
TCTTTTTTTCCCCAAAGTCAGAAATGCTCAAAGAAAATTATTTATTGTTACAGATAAACTTGAGAGATAAAAG
CTATACCATAATAAAATCTAAAATTAAGGAATATCATGGGACCAAATAATCCATTCCAGTTTTTTTAAAGTTTCT
TGCATTTATTATTCTCAAAAGTTTTTTCTAAGTTAAACAGTCAGTATGCAATCTTAATATATGCTTTCTTTTGCA
TGGACATGGGCCAGGTTTTTCAAAAGGAATATAAACAGGATCTCAAACCTGATTAAATGTTAGACCACAGAAGTG
GAATTTGAAAGTATAATGCAGTACATTAATATTTCATGTTTCATGGAAGTGAAGAATAAGAACTTTTTCACTTCAG
TCCTTTTCTGAAGAGTTTGACTTAGAATAATGAAGGTAAGTGAAGAAGTGAAGTAACTCTGTATGAGGTTGCATTG
ATTTTTTAAGGCAATATATAATTGAAACTACTGTCCAATCAAAGGGGAAATGTTTTGATCTTTAGATAGCATGCA
AAGTAAGACCCAGCATTTTAAAAGCCCTTTTTTAAAACACTAGACTTCGTACTGTGAGTATTGCTTATATGTCCTTA
TGGGGATGGGTGCCACAAATAGAAAATATGACCAGATCAGGGACTTGAATGCACTTTTGCTCATGGTGAATATAG
ATGAACAGAGAGGAAAATGTATTTAAAAGAAATACGAGAAAAGAAAATGTGAAAGTTTTACAAGTTAGAGGGATG
GAAGGTAATGTTTAAATGTTGATGTCATGGAGTGACAGAATGGCTTTGCTGGCACTCAGAGCTCCTCACTTAGCTA
TATTCGTAGACTTTGAAGAGTTATAAAGTATAACTATAAACTAATTTTTCTTACACACTAAATGGGTATTTGTT
CAAAATAATGAAGTTATGGCTTCACATTCATTGCAGTGGGATATGGTTTTTATGTAAACATTTTTTAGAACTCCA
GTTTTCAAAATCATGTTTGAATCTACATTCATTTTTTTTTGTTTTCTTTTTTGAGACGGAGTCTCGCTCTGCCGCC
CAGGCTGGAGTGCAAGTGGCGGATCTCGGCTCACTGCAAGCTCTGCCTCCCAGGTTTACACCATTCTCCTGCCTC
AGCCTCCCAGTAGCTGGGACTACAGGTGCCACCACCACGCCTGGCTAGTTTTTTGTATTTTAGTAGAGACGC
AGTTTCACCGTGTAGCCAGGATGGTCTCGATCTCCTGACCTTGTGATCTGCCCGCTCGGCCTCCCAAAGTGCT
GGGATTACAGGCGTGAGCCACCGCGCCAGCCTACATTCATTTCTAAAGTCTATGTAATGGTGGTCATTTTTTCC
CTTTTAGAATACATTAAATGGTTGATTTGGGGAGGAAAACCTTATTCTGAATATTAACGGTGGTGAAAAGGGGACA
GTTTTTACCCTAAAGTGCAAAAGTGAAACATACAAAATAAGACTAATTTTTAAGAGTAACTCAGTAATTTCAAAA
TACAGATTTGAATAGCAGCATTAGTGGTTTGAGTGTCTAGCAAAGGAAAAATTGATGAATAAAATGAAGGTCTGG
TGTATATGTTTTAAATACTCTCATATAGTCACACTTTAAATTAAGCCTTATATTAGGCCCTCTATTTTCAGGA

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FIGURE 267B

TATAATTCTTAACATCATTATTTACCTGATTTTAATCATCAGATTGAAAATTCTGTGCCATGGCGTATATGTTT
AAATTCAAACCATTTTTAAATGTGAAGATGGACTTCATGCAAGTTGGCAGTGGTTCTGGTACTAAAAATTGTGG
TTGTTTTTCTGTTTACGTAACCTGCTTAGTATTGACACTCTCTACCAAGAGGGTCTTCCTAAGAAGAGTGCTGT
CATTATTTCTCTTATCAACAACCTGTGACATGAGATTTTTTAAGGGCTTTATGTGAACATGATATTGTAATTT
TTCTAAGCATATTCAAAAGGGTGACAAAATTACGTTTATGTACTAAATCTAATCAGGAAAGTAAGGCAGGAAAAG
TTGATGGTATTCATTAGGTTTTAACTGAATGGAGCAGTTCCTTATATAATAACAATTGTATAGTAGGGATAAAC
ACTAACTTAATGTGTATTCATTTTAAATTGTTCTGTATTTTTAAATTGCCAAGAAAAACAACTTTGTAAATTTGG
AGATATTTTCCAACAGCTTTTCGTCTTCAGTGTCTTAATGTGGAAGTTAACCCCTACCAAAAAAGGAAGTTGGCA
AAAACAGCCTTCTAGCACACTTTTTTAAATGAATAATGGTAGCCTAACTTAATATTTTTATAAAGTATTGTAAT
ATTGTTTTGTGGATAATTGAAATAAAAAGTTCTCATTGAATGCACCTATTAAAAAAAAAAAAAAAAAAAA

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FIGURE 268

MGCIKSKENKSPAICYRPENTPEPVSTSVSHYGAEP TTVSPCPSSSAKGTAVNFSSLSMTPFGGSSGVTPFGGAS
SSFSVVPSSYPAGLTGGVTIFVALYDYEAR TTEDLSFKKGERFQIINNTEGDWWEARSIATGKNGYIPSNYVAPA
DSIQAE EWYFGKMGRKDAERLLL NPGNQRGIFLVRESE TTKGAYSL SIRDWDEIRGDNVKHYKIRKLDNGGYYIT
TRAQFD TLQKL VKHYTEHADGLCHKLTTVCPTVKPQTQGLAKDAWEIPRESLRLEV KLGQGC FGEVWMGTWNGTT
KVAIKTLKPGTMMPEAFLQEAQIMKKLRHDKLVPLYAVVSEEF IYIVTEFMSKGSLLDFLKEGDGKYLKLPQLVD
MAAQIADGMAYIERMNYIHRDLRAANILVGENLVCKIADFG LARLIEDNEYTARQGA KFP IKWTAPEAA LYGRFT
IKSDVWSFGILQTELVTKGRVPYPGMVNREVLEQVERGYRMP CPQGCPESLHELMNLCWKKDPDERPTFEYIQSF
LEDYFTATEPQYQPGENL

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FIGURE 269

CTCGGCCCCGGGCTGCCGCGCCAGCCCGTCTCCGCGGCGGGGGACCGGGCTGCCTTGCCCCCTCAGCGCTCGCGT
CTTTTCCGGCAGTTGGAACGCTTCCTGTTGTCTCACCCGTAACCGCCTGTTGCCCCCTGTCTCAGAGTCCCTCA
CGCGTCCCCTCCCGTCTTTGGCTCGTTGGCTGCCGCGCGCGGGGCTTCGCCAGCCTTCAAGTCGAGACTACTGGC
CGAAGGGGCGTCTGCCGCTCTCCGCGCTCCCCAGCCCTGCCTCTCCCTGGGCTCTGCAGCC**ATG**GCAATGACAGG
CTCAACACCTTGCTCATCCATGAGTAACCACACAAAGGAAAGGGTGACAATGACCAAAGTGACACTGGAGAATTT
TTATAGCAACCTTATCGCTCAACATGAAGAACGAGAAATGAGACAAAAGAAGTTAGAAAAGGTGATGGAAGAAGA
AGGCCTAAAAGATGAGGAGAAACGACTCCGGAGATCAGCACATGCTCGGAAGGAAACAGAGTTTCTTCGTTTGAA
GAGAACAAGACTTGGAATTGGAAGATTTTGAGTCCTTAAAAGTAATAGGCAGAGGAGCATTGTTGGTGAGGTACGGCT
TGTTCAGAAGAAAGATACGGGACATGTGTATGCAATGAAAATACTCCGTAAAGCAGATATGCTTGAAAAGAGCA
GGTTGGCCACATTTCGTGCCGAGCGTGACATTCTAGTGAGGCAGACAGTTTGTGGGTTGTGAAAATGTTCTATAG
TTTTCAGGATAAGCTAAACCTCTACCTAATCATGGAGTTCTTGCCCTGGAGGGGACATGATGACCTTGTTGATGAA
AAAAGACACTCTGACAGAAGAGGAGACTCAGTTTTATATAGCAGAAACAGTATTAGCCATAGACTCTATTACCA
ACTTGGAATTCATCCACAGAGACATCAAACCAGACAACCTTCTTTTGACAGCAAGGGCCATGTGAACTTTCTGA
CTTTGGTCTTTGCACAGGACTGAAAAAGCACATAGGACAGAATTTTATAGGAATCTGAACCACAGCCTCCCCAG
TGATTTCACTTTCCAGAACATGAATTCAAAAGGAAAGCAGAAACCTGGAAGAAATAGACGTCAGCTAGCCTT
CTCCACAGTAGGCACTCTGACTACATTGCTCCTGAGGTGTTTCATGCAGACCGGGTACAACAAGCTCTGTGATTG
GTGGTCGCTTGGGGTGATCATGTATGAGATGCTCATCGGCTACCCACCTTTCTGTTCTGAGACCCCTCAAGAGAC
ATATAAGAAGGTGATGAACTGGAAAGAACTTTGACTTTTCTCCAGAAGTTCCCATCTCTGAGAAAGCCAAGGA
TCTAATTTTGAGGTTCTGCTGTGAATGGGAACATAGAATTGGAGCTCCTGGAGTTGAGGAAATAAAAAGTAACTC
TTTTTTTGAAGGCGTTGACTGGGAACATATCAGAGAGAGACCTGCTGCAATATCTATTGAAATCAAAGCATTGA
TGATACCTCAAACCTTCGATGAGTTTCCAGAATCTGATATTCTTAAGCCAACAGTGCCACAAGTAATCATCCTGA
GACTGACTACAAGAACAAAGACTGGGTCTTCATCAATTACACGTACAAGCGCTTTGAGGGCCTGACTGCAAGGGG
GGCAATACCTTCTACATGAAAGCAGCAAA**TAG**TACTCTTGCCACGGAATCCTATGTGGAGCAGAGTTCTTTGT
ATAACATCATGCTTTTCTCTCACACTCTTGAAGAGCTTCCAAGAAGTTGATGGAACCCACCAATATGTCATAGT
AAAGTCTCCTGAAATGTGGTAGTAAGAGGATTTTCTTCCATAATGCATCTGAAAAACTGTAAACAAAGACAACCA
TTTCTACTACGTCGGCCATAAACAGCTATCCTGCTTTGGAAGAGAAGCATCATGAGCCAATTTGATAGGTGTTTT
AAAAATAACTTGAGTTTCTTAAGTTCATCAGAATGAAGGGGAAAAACAGCCATCATCCAACATTATTGAGATTG
TCGTGTATAGTCATCGAATATCAGCCAGTTCTGTAAATTTTGTGACACGCTCTCTGCCAAGCCCACCAAGTATTT
CCTTTATAGCTAAAAGTTCCATAGTACTAAGGAAATAAAGCAATAAAGACAGTCTCAGCAGCCAGGATTCTGGCT
GAAGGAAATGATCCGCCACCCTGAGGGTGGTGATGGTAGTTTCTACCCATACCTCAGCCTCAGGCGAGTGCGTTA
TAGCCTCCATTATGGTGCACCTTATTTATGGTACTAAGATAAAGACTGTCAATCCATTGATTTATCTCCTCCTG
TCCCCATCTAAATACCCATGCTGCTTTTCTGAGTGTTGATGGGGGTACCAGCTTGATCCACTGTTGCTCTTA
GAAGGCCAGAAAGTCTTTGGGCATTGCCAAGAAATCCCGGATTATGTGGAAAACCTCACTTTCTCTTACGGC
TGTACCAGAAAATCCCTAAGACAGATCTTGCCGTGGACTAGCAATACCTGCAAGTGCTGCCAATGGGAACCTCAAT
TTATTCCTGGGAACCTAACGAGGAGAGCCCAGGCCTAGGCAGGAGGCCTGGAACCTCTTGCTAAGGTGCTGTT
CCTGTTCTGCAAGGTCTCCAGAACCCCTTTGGAAATGGTGAAGGAACAGCCCAATAGAAGTACAGAGCCAGCT
GACAAGTCCTTGTAAGCTCACTCCTCAGTCCTTGGCACAGCCATGTTTTGTCTTCTCTCTTGGTATTTCTTCTC
TCCCAACTTTAGCCATTTTGCTTGGAATCATGATTACAATTTTTTCTTTGAGATGCCTTCTGGGGGATACT
CCTCCCCACCCTAAAGGGTGCCTGCAACTTAGGCGGATTGGGTCTCTCTGCTGTGGCGTTCTCTCTTGAGAGAC
CCTCTGAATTTTAGCACAAAGTGCCCTTCTGTTTCACAGCTGCCACCACCTTTAGAGGAATTTTCGTGAGAAAATG
TGGAGGCTCCATATTAATGCATTATTTTTTAAAAAGTTTTGATAACTCTTAAAGCATCATTGACCTATGTGGG
AACTTTGCCTGTTGCAAAGTATTGTGGCCGAGCTGCAGCTGGGAGCCTGCTTTCTGCCAGTCTTGAGGTTCTGAA
GATCAGCTTTGAAAGGAAAGTATGTCTAGCTTAGCCATTGAGAAGAGAAAAATGGAATATCAGAGTTACAGTTG
TCAGTGAAACTACTTTGGATTTTAACCTCTTAGAGGAAGAAAAAGGTTAGGGAAGTGCAACTCTGGATGAAGG
TGATGTGTTTGCCTCTCAGTCTTTCATTTCATAGCCTGCTAGTGAAAGGAAGTAAATGAGATTCTTTTGTGTGAC
TTTGTAGTCTCTTTGTATTACCAAATAGTTGGGGTGTGACTCCTGTGTGTTTTGCAAGAATGTGTGGTAAGCCT
GGGTAAAGAGAAGGAAGTGCCTGTTGGGAGAGTCTTTGTGTTGGGGAGTGGCAGGGGATGATTTGTTTCAGGGG
AAAATGCCACATTTTAACCTTTAACTTCTGAATAAACTGTGTAAAAACAAAAAAAAAAAAAAAAAAAA

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FIGURE 270

MAMTGSTPCSSMSNHTKERVMTKVTLENFYSNLIAQHEEREMRQKKLEKVMEEEGLKDEEKRLRRSAHARKETE
FLRLKRTRLGLEDFESLKVIGRGAFGEVRLVQKKDTGHVYAMKILRKADMLEKEQVGHIRAERDILVEADSLWVV
KMFYSFQDKLNLYLIMEFLPGGDMTLLMKKDTLTEEETQFYIAETVLAIDS IHQLGFIHRDIKPDNLLD SKGH
VKLSDFGLCTGLKKAHRTEFYRNLNHS LPSDFTFQNMNSKRKAETWKRNRRLAFSTVGTPDYIAPEVFMQTGYN
KLCDWWSLGVIMYEMLIGYPPFCSETPQETYKKVMNWKETLTFPEVP ISEKAKDLILRFCCEWEHRIGAPGVEE
IKSNSFFEGVDWEHIRERPAAISIEIKSIDDTSNFDEFPESDILKPTVATSNHPETDYKNKDWF INYTYKRFEG
LTARGAIPSYMKA AK

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FIGURE 271A

GGACTGTGTGTGTCTGGCTGTAGCAGACGCGAGGCGGCGACGAGGCGCCGGGGACCCGCGCGAGGGGCGGCCGGG
AGGCGGCGGCGGCGGCCGAGAAAGTAGCAGCAGGACCGGCGGCGGCGACGGCAGCCCTGAAATGCATTTTCCTC
TCCAGCGGCCATGTTAACCAGGAAACCTTCGGCCGCGCTCCCGCCGCTACCCGACCGGCCGAGGTGGGGACAG
CGCCGTTTCGTAGCTTCAGGCTTCCCCGGGGCTCGGTGCAGGGCCACCCGGAGCGGAGTGGGGACTGGCCCGCC
CTCCCCATCGCCCTGCCGCTCTCCGGGCCAGCAACGCTGCCGCCGACGCCACACGATTGGCGGCAGTAAGCA
CACAATGAATGATCACCTGCATGTCGGCAGCCACGCTCACGGACAGATCCAGGTTCAACAGTTGTTTGAGGATAA
CAGTAACAAGCGGACAGTGCTCACGACACAACCAATGGGCTTACAACAGTGGGCAAAACGGGCTTGCCAGTGGT
GCCAGAGCGGCAGCTGGACAGCATTCATAGACGGCAGGGGAGCTCCACCTCTCTAAAGTCCATGGAAGGCATGGG
GAAGGTGAAAGCCACCCCATGACACCTGAACAAGCAATGAAGCAATACATGCAAAAACACAGCCTTCGAACA
CCATGAGATTTTCAGCTACCCCTGAAATATATTTCTTGGGTCTAAATGCTAAGAAGCGCCAGGGCATGACAGGTGG
GCCCAACAATGGTGGCTATGATGATGACCAGGGATCATATGTGCAGGTGCCCCACGATCACGTGGCTTACAGGTA
TGAGGTCTCAAGGTCAATTGGGAAGGGGAGCTTTGGGCAGGTGGTCAAGGCCTACGATCACAAAGTCCACCAGCA
CGTGGCCCTAAAGATGGTGCGAATGAGAAGCGCTTCCACCGGCAAGCAGCGGAGGAGATCCGAATCCTGGAACA
CCTGCGGAAGCAGGACAAGGATAACACAATGAATGTCATCCATATGCTGGAGAATTTACCTTCCGCAACCACAT
CTGCATGACGTTTGAGCTGCTGAGCATGAACCTCTATGAGCTCATCAAGAAGAATAAATTCAGGGCTTCAGTCT
GCCTTTGGTTCGCAAGTTTGCCACTCGATTCTGCAGTGCTTGGATGCTTTGCACAAAACAGAATAATTCAGT
TGACCTTAAGCCCGAGAACATTTTGTTAAAGCAGCAGGGTAGAAGCGGTATTAAAGTAATTGATTTTGGCTCCAG
TTGTTACGAGCATCAGCGTGTCTACACGTACATCCAGTCGCGTTTTTACCGGGCTCCAGAAGTGATCCTTGGGGC
CAGGTATGGCATGCCATTGATATGTGGAGCCTGGGCTGCATTTTAGCAGAGCTCCTGACGGGTTACCCCTCTT
GCCTGGGAAGATGAAGGGGACCAGCTGGCCTGTATGATTGAACTGTTGGGCATGCCCTCACAGAACTGCTGGA
TGCATCCAAACGAGCCAAAATTTTGTGAGCTCCAAGGGTTATCCCGTTACTGCACTGTCACGACTCTCTCAGA
TGGCTCTGTGGTCTAAACGGAGGCGCTTCCCGAGGGGGAAACTGAGGGGCCACCGGAGAGCAGAGAGTGGGG
GAACGCGCTGAAGGGGTGTGATGATCCCTTTTCCTTGACTTCTTAAACAGTGTTTAGAGTGGGATCCTGCAGT
GCGCATGACCCACAGGCCAGGCTTTGCGGCACCCCTGGCTGAGGAGGCGGTTGCCAAAGCCTCCACCGGGGAGAA
AACGTCAGTGAAAAGGATAACTGAGAGCACCGGTGCTATCACATCTATATCCAAGTTACCTCCACCTTCTAGCTC
AGCTTCCAAACTGAGGACTAATTTGGCGCAGATGACAGATGCCAATGGGAATATTCAGCAGAGGACAGTGTGGC
AAAACCTTGTTAGCTGAGCTCACGTCCCCTGATGCTGGTAACTGAAAGATACGACATTGCTGAGCCTTACTGGGT
TGAAAAGGAGTAGCTCAGACCTGTTTTTATTTGCTCAATAACTCTACTCATTTGTATCTTTTCAGCACTTAATTT
TAATGTAAGAAAGTTGTTCAATTTGTTTTTATAAAATACATGAGGACAATGCTTTAAGTTTTTATACTTTTCAGAA
ACTTTTTGTGTTCTAAAAGTACAATGAGCCTTACTGTATTTAGTGTGGCAGAATAATAACATCAGTGGCAGGCCA
CTGATTACTTCATGACTGCCACGCATTTACAGATTGGTGTCAAAGACATTCATAATGTTTTATGGTTCATGTTA
TATCCTCCCCAGGGTGACAGCCCTTAAGGCCCTCCTTTCCCTCCATGCTCCAGGTCCATGCACAGGTGTAGCA
TGTCTGCTTCCGTTTTTCATAAATTAATCTGGGTGTTGGGGGTAGTGGGAGGAGAACGGTCAGAATCAAAGTGA
CATTCTAAGAAAACTGTACCTTAGAGATTTTCTCTAGTGTCAAACAAATACAAAATAAGATCCCCAAGGTTT
AAACTGCCCAGTTAGCATTCTGACATTCTAAAAGCCGGCAAAGCAGCTTTTAGTGGATAAATGGGAATGGAAACG
TGTGTGTTCTCCAAATTTCTAGTATGATCGGTGAGCTGTTTTGTAAAGAAGCCTCATATTACAGAGTTGCTTT
TGCACCTAAATTTAGAATTGTATTCCATGAACTGTTCTCCTCTTCTCTGCTTTCTCCTCTCTGTTCTCTCTTT
TAATACCACACGTCTGTTGCTTGCATTTAGTTTGCTTCTTCTCTCAGCTGTGTATCCCAGACTGTTAATACAGA
AAAGAGACATTTAGCTGTGATTATGACCATTGTTTCATATTCCAATTAAAAAAGAACAGCAGCCTAGCTACTT
AAGGTGGGGATTTTCATAGTTCCAAAGAAGATTTAGCAGATTAGAGTGAGTTCACACTTTTCAGGTGCCACTGTAA
GGTCTCTCAGCCTGGGAAACTATCAACTCTTCTTTAAAAAGAAAGAGGGTTGAAAATCCTCTGGACGAACAGA
AGTCACTTTGGCTGTTTCAGTAAGGCCAATGTTAACAACACGTTTAGAGGAGGAAAAGTTCAACCTCAAGTTAAAT
GGTTTGACTTATTTCTCGTATCATTAGAAGAACCCAGAGATAGCATTCTCTATTTTATTTTACTTTCTTTTGG
ATTGCACTGATTGTTTTTGTGGGAATGACACTTTATCTGGCAAAGTAACTGAGAGTTTGGTAAAAGAATATTTTC
TTCTCTGAATAATAATTATTTTCACAGTGAAAATTTTCACTATTTTATCACTAATGTATGAGCAATGATCTATATC
AATTTCAAGGCACGTGAAAAAATTTTTTAGTATGTGCAATTTAATATAGAAAGATTTCTGCCTGTTTGGACAAT
AGGTTTTGGGTAGTACAGATTAGGATAAGTAAGCTTATATATGCACAGAGATTATTGTATTACCTGTAAATTGAT
TTACAAGTACTTAAAAGCGTGGTCCCCAGTGAGGCCAAGAAAGTTCCGGTTAAGTTCTTTAATAATAATCCTAC

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FIGURE 271B

AGTTTATCTTAAGAA

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FIGURE 272

MLTRKPSAAAPAYPTGRGGDSAVRQLQASPGLGAGPTRSGVGTGPPSPIALPPLRASAAAAAHTIGGSKHTMN
DHLHVGS SHAHQIQVQQLFEDNSNKRTVLTTQPNGLTTVGKTGLPVVPERQLDSIHRRQGSSTSLKSMEGMGKVK
ATPMTPEQAMKQYMQKLTAFEHHEIFSYPEIYFLGLNAKKRQGMTGGPNNGGYDDDQGSYVQVPHDHVAYRYEVL
KVIKGSGFGQVVKAYDHKVHQHVALKMRNEKRFHRQAAEEIRILEHLRKQDKDNTMNVIHMLENFTFRNHICMT
FELLSMNLIELIKKNKFQGFSLPLVRKFAHSILQCLDALHKNRIHCDLKPENILLKQQGRSGIKVIDFGSSCYE
HQRVYTYIQSRFYRAPEVILGARYGMPIDMWSLGCILAELLTGYP LLPGEDEGDQLACMIEL LGMP SQKLLDASK
RAKNFVSSKGYPRYCTVTTLSDGSVVLNNGRSRRGKLRGPPESREWGNALKGCDPLFLDFLKQCLEWDP AVRMT
PGQALRHPWLRRRLPKPPTGEKTSVKRITESTGAITSISKLPPPPSSASKLRTNLAQMTDANGNIQQRTVLPKLV
S

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FIGURE 273A

CAGCTGCCAGCCGAGGAGGCGCGCGGAGAGGGGACTGCGGTTCAGCTGCGTCCACTTGGGGCTGTGCGGCGGTCC
CGCGCCCGGCGATGTTCCCGGGCACTCCCTGAGTAGCGGCAGCTTATCCCCCGCCGCTAGCCCGCCCTGGTCCC
CGGCTCGCTCGCTGGCTGGCGCGGCCCGGCCCGCTCTGCGTCCGCCCCGCGCGGTGGAGGCGCGCAGAGGGG
ACGCGGCCGGGGATGAGCGGATTGCGGGTGAAGTTCGCGCGCCGGGGGCCCCGGAAGCCGTGAGCCGCTGCTTTT
CTCCGAGTCGCGCCCTGCCCTTGGATTGAGATC**ATGT**CCATCCACATCGTGGCGCTGGGGAACGAGGGGGACA
CATTCCACCAGGACAACCGGCCGTCGGGGCTTATCCGCACTTACCTGGGGAGAAGCCCTCTGGTCTCCGGGGACG
AGAGCAGCTTGTTGCTGAACGCGGCCAGCACGGTCGCGCGTCCGGTGTTACCCGAGTATCAGGCCAGTGCGTTTG
GGAATGTCAAGCTGGTGGTCCACGACTGTCCCGTCTGGGACATATTTGACAGTGATTGGTACACTTCTCGAAATC
TAATTGGGGGCGCTGACATCATTGTGATCAAATACAACGTTAATGACAAGTTTTTCATTCCATGAAGTAAAGGATA
ATTATATTCCAGTGATAAAAAGAGCATTAAATTCAGTTCCAGTAATTATTGCTGCTGTTGGTACCAGACAAAATG
AAGAGTTACCTTGTACATGCCACTATGTACCTCAGACAGAGGGAGCTGTGTTAGTACAACCTGAAGGGATCCAAC
TTGCAAAAGAACTAGGAGCAACCTATCTTGAAGTCCACAGCCTTGATGACTTCTACATAGGAAAGTATTTTGAG
GAGTGTGGAGTATTTTATGATTCAAGCCTTAAATCAGAAGACAAGTGAAGAAATGAAGAAAGAAATGAGCA
ACTCCTTTTCATGGAATTAGACCACCTCAACTTGAACAACAGAAAAAATGCCTGTCTTAAAGGCTGAAGCGTCAC
ATTATACTCTGACTTAAATAACTTGCTGTTCTGCTGCCAGTGTTGGACGTGGTATTTTATAACCCCGATTTAA
AGAAAGTTGTAGAGGCCCAAGATCGTTCTCTGCGCTGTAAGCCATGTTTTTCATGCTGCTTTTCAATGTGAAGA
GTCCCACTGACATTCAGGATTCAGTATCATCCGAAGTACCCAGGATCTTTTTGCTATAAACAGAGATACTGCAT
TTCCAGGTGCTAGCCATGAATCTTCAGGCAACCCACCATTACGAGTCATTGTTAAAGACGCCCTCTTCTGTTCTT
GTTTATCAGACATCCTTCGCTTCATTTATTCAGGTGCTTTTCAGTGGGAAGAATTGGAAGAAGATATCAGGAAGA
AGTTGAAAGATTCTGGGGATGTTTCAAATGTAATCGAGAAAGTTAAATGCATTTTAAAAACACCAGGAAAGATTA
ATTGCCTAAGGAATTGCAAAACCTATCAAGCCAGAAAACCTTTGTGGTTTTATAAACTTCCCTCAAGTTTTTCC
TTAATAAGCCGATGCTTGCCGATGTTGTCTTCGAAATTCAAGGTACGACAGTGCCAGCCACAGGGCCATCCTGG
TGGCCCGTTGTGAAGTGATGGCAGCCATGTTTAAATGGTAATTACATGGAAGCAAAGAGTGCTCTGATTCCCGTTT
ATGGTGTTTTCCAAAGAGACTTTCTTGTCATTTTTAGAAATACCTGTACACAGACTCCTGCTGCCAGCTGGCATAT
TCCAGGCCATGTGTCTCCTGATCTGTGCCGAGATGTACCAAGTGTCCAGACTGCAGCACATCTGTGAGCTGTTCA
TCATTACCCAGCTGCAGAGCATGCCAAGCAGGGAAGTGGCATCCATGAACCTTGATATAGTTGACCTGCTTAAAA
AGGCCAAGTTTCACCACTCTGATTGCCCTTTCAACCTGGCTACTTTCATTTTCATTGCTACTAACTACCTCATCTTCA
GTCAAAAGCCTGAATTTTCAGGATCTTTTCAGTGAAGAACGCAGTTTTGTTGAAAAGCACAGATGGCCGTCGAATA
TGTACTTGAAGCAGCTTGCGGAATACAGGAAGTATATTCACTCCCGGAAATGTCGTTGCTTAGTAATG**TAACCTG**
GAGCTTTTATACACTACATTTCTTTTTTATTATTATGAAGAATGGGATACCTCCAGGTTCCAGTAAATTTCTCT
GACCGAAACCAATGTGGGTGTTAGAAAAATTACCATATAGCTTAATATGTTTATTAGTTCTCTTTGGAAAAAAC
TACCACTGTGGTCTTAAAAGGGAACAAAATATACCATAGGCTAAAGCTTTCAGTCTAGAATGCAAAGCT
GTTTTGCAGCTGTTTTCCCTTAAAGATGTCCTGTTGCTTTAGTGATATTTAGACCCCTCTCAGTTAAGAAATGCT
TAGATTAATAAAAAAAAAATTACGTAGGATTAATACAGAAATTTAATCATGTCTGATTAATTGCTCTATTAAATA
AGGGGCATTTAAAGACCCAGCATAACCATTTGTATAATGAGAAATCTAGGGGAAAACCAATCAGTCCAACATGAG
ATTTTAGGAATAGAAATTTGCCGGCCATTTGGAAGTGAAATGCCACTTAGTTCTCAATTGATGACAGTGTTTGA
ATCATCATAAAAAAAAAATACCTGCTTTTCATCTGGACAACCAATTGAGCCACTTTATCTCCTTTTGGAATCTGA
GTAGGCGGGGAACCTAGGCAGGGCTGGCTTTCTTAGCGTGTAAGTTGTGTAGCAGCACAGGGCCACACTTAGAA
GGACCCACACTTGGTTCAAGGCTCTGCTATAGCGGAAATCTTAATAATGTTTGAAGAAGGGCCCCATGATTTT
ATTTTGTGCTGAGCCCTCAAAATTATGTCTGTTTCGTGGTGGGAAATATCCTATGTTTTCTTGCTCAAACACCTT
TCTCTCTGAAAGCAGAAAAAGGCACTGATATAAAGGGAAGAGAAGGAGGCTCACCGGAGGGAAGAGAACATAGTG
AAGATTTCCCGCTTTGGGGAGGTCCTGGACCACCCAGGGCCTCCACTGCCACCTTGGCTGGCAAGGGAGAAATGTG
TTGTGTTGTCTTAGCTTTAAACAGTCACAGTTCTTGCTCTATCATAGATGAACAAATACTTTCTTGATCATTCT
GTAAGACCAGGAGGTTGGTAAGAGTGACTAACAGCCTAACTTTAATACACATGTATAAAGATGTTACAGAGAA
AGATGCTCTGTAGAGAATTTGCTACCGAAGTTGGCTCAAGAATTTGTTTTTAGTGTTATTTACCAAGATTAGGAC
GTCAGTGGCTTAAATCTTTGAATCTTTTCAAGGACTGCAAGATTATTTGATAAAGAGTAGCATGAATCTTGTTG
CTCTAATATTACACAGTAAGTTCAAAGAAAGGATGTAAGTCAAAGACTTGTTACATAGAGGGAAGTGGACTGGG
ATAGAGGACAGACTGATAGTTTCTTTCTTTTCATATCATATGATAGAGAAATAATTATATCAGAACTCACAAAC

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FIGURE 273B

CTAGACATGGAAAAACAGATTACTGTCTATTGTCAGCATCATTTTCATCTGTAAGTCACTACTGGAATATATTTT
TCTTTTAATTTCCAGTGACTTTAGAATACACACAGTTTTTCCGACTTTTCAAAAATTTGATTAAATGGTTTTATA
GTATAATATTGGGACCCCATACCGTTAGCCCTTGTATGTATACCAACACTGCCAAAGTAAAACATTAGGTCAGGC
ATGGTGGCTCAGGCCTGTAATCCCAGCATTTTGGGAGGCTGAGGCAAGTGGATAACTTGAGGTCATGAGTTCGAA
ACCAGCCTGGCCAAAACAGTGAAACCCCGTCTCTACTAAAAATACAAAATTAGCCAGATGTGGTGGCGCACACCT
GTAATCCCAGCTACTCAGGAAGCTGAGGCAGGAAAATCGCTTGAACCTGGGAGGTGGAAGTTGCAGTGAGCCGAG
ATCGCACCACTGCACTCCAGCCTGGGTGACAAGAGCGAAACTCCATCTC

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FIGURE 274

MSIHIVALGNEGDTFHQDNRPGLIRTYLGRSPLVSGDESSLLNAASTVARPVFTEYQASAFGNVCLVHDCPV
WDIFDSWYTSRNLIGGADIIVIKYVNDKFSFHEVKDNYIPVIKRALNSVPVIAAVGTRQNEELPCTCPLCTS
DRGSCVSTTEGIQLAKELGATYLELHSLDDFYIGKYFGGVLEYFMIQALNQKTSEKMKKRKMSNSFHGIRPPQLE
QPEKMPVLKAEASHYNSDLNNLLFCCQCVDVVFYNPDLKKVVEAHKIVLCAVSHVFMLLFNVKSPDIQDSSIIR
TTQDLFAINRDTAFPGASHESGNPPLRVIVKDALFCSCSLSDILRFIYSGAFQWEELEEDIRKKLKDSGDVSNVI
EKVKCILKTPGKINCLRNCKTYQARKPLWFYNTSLKFFLNKPMADVVFEIQGTTVPAHRAILVARCEVMAAMFN
GNYMEAKSVLIPVYGVSKETFLSFLEYLYTDSCCPAGIFQAMCLLICAEMYQVSRLQHICELFIITQLQSMPSRE
LASMNLDIVDLLKAKFHHSCLSTWLLHFIATNYLIFSQKPEFQDLSVEERSFVEKHRWPSNMYLKQLAEYRKY
IHSRKCRCLVM

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FIGURE 275A

CAGCTGCCAGCCGAGGAGGCGCGGCGGAGAGGGGACTGCGGTGAGCTGCGTCCACTTGGGGCTGTGCGGCGGTCC
CGCGCCCGGCGATGTTCCCGGGCACTCCCTGAGTAGCGGCAGCTTATCCCCGCCCCGCTAGCCCGCCCTGGTCCC
CGGCTCGCTCGCTGGCTGGCGCGGCCCGGCCCGCTCTGCGTCGGCCCCGCCGCGGTGGAGGCGCGCGAGGGGG
ACGCGGCCCGGGGATGAGCGGATTGCGGGTGAACTCGCCGCCCGGGGGCCCCGCGAAGCCGTGAGCCGCTGCTTTT
CTCCGAGTCGCCGCCCTGCCCTTGGATTTGAGATC**ATGT**CCATCCACATCGTGGCGCTGGGGAACGAGGGGGACA
CATTCCACCAGGACAACCGGCCGTCGGGGCTTATCCGCACTTACCTGGGGAGAAGCCCTCTGGTCTCCGGGGACG
AGAGCAGCTTGTGCTGAACGCGGCCAGCACGGTCGCGCGTCCGGTGTTCACCGAGTATCAGGCCAGTGCCTTTG
GGAATGTCAAGCTGGTGGTCCACGACTGTCCCGTCTGGGACATATTTGACAGTGATTGGTACACTTCTCGAAATC
TAATTGGGGGCGCTGACATCATTGTGATCAAATACAACGTTAATGACAAGTTTTTCATTCCATGAAGTAAAGGATA
ATTATATTCCAGTGATAAAAAGAGCATTAAATTCAGTTCAGTAATTATTGCTGCTGTTGGTACCAGACAAAATG
AAGAGTTACCTTGTACATGCCCACTATGTACCTCAGACAGAGGGAGCTGTGTTAGTACAACCTGAAGGGATCCAAC
TTGCAAAAGAACTAGGAGCAACCTATCTTGAACCTCACAGCCTTGATGACTTCTACATAGGAAAGTATTTTGGAG
GAGTGTGGAGTATTTTATGATTCAAGCCTTAAATCAGAAGACAAGTGAAAAATGAAGAAAAGAAAAATGAGCA
ACTCCTTTCATGGAATTAGACCACCTCAACTTGAACAACCAGAAAAAATGCCTGTCTTAAAGGCTGAAGCGTCAC
ATTATACTCTGACTTAAATAACTTGCTGTTCTGCTGCCAGTGTGTGGACGTGGTATTTTATAACCCCGATTAA
AGAAAGTTGTAGAGGCCCAAGATCGTTCTCTGCGCTGTAAGCCATGTTTTCATGCTGCTTTTCAATGTGAAGA
GTCCCACTGACATTCAGGATTCAGTATCATCCGAACCTACCCAGGATCTTTTTGCTATAAACAGAGATACTGCAT
TTCCAGGTGCTAGCCATGAATCTTCAGGCAACCCACCATTACGAGTCATTGTTAAAGACGCCCTCTTCTGTTCTT
GTTTATCAGACATCCTTCGCTTCATTTATTCAGGTGCTTTTCAGTGGGAAGAATTGGAAGAAGATATCAGGAAGA
AGTTGAAAGATTCTGGGGATGTTTCAAATGTAATCGAGAAAAGTTAAATGCATTTTAAAAACACCAGGAAAGATTA
ATTGCCTAAGGAATTGCAAACCTATCAAGCCAGAAAAACCTTTGTGGTTTTATAACACTTCCCTCAAGTTTTTCC
TTAATAAGCCGATGCTTGCCGATGTTGTCTTCGAAATTCAAGGTACGACAGTGCCAGCCCACAGGGCCATCCTGG
TGGCCCGTTGTGAAGTGATGGCAGCCATGTTTAATGGTAATTACATGGAAGCAAAGAGTGTCTGATTCCCGTTT
ATGGTGTTTCCAAAGAGACTTTCTTGTCATTTTTAGAATACCTGTACACAGACTCCTGCTGCCAGCTGGCATAT
TCCAGGCCATGTGTCTCCTGATCTGTGCCGAGATGTACCAAGTGTCCAGACTGCAGCACATCTGTGAGCTGTTCA
TCATTACCCAGCTGCAGAGCATGCCAAGCAGGGAACCTGGCATCCATGAACCTTGATATAGTTGACCTGCTTAAAA
AGGCCAAGTTTACCACCTCTGATTGCCTTTCAACCTGGCTACTTCATTTATTGCTACTAACTACCTCATCTTCA
GTCAAAAGCCTGAATTTCAGGATCTTTCACTGGAAGAACGCAGTTTTGTTGAAAAGCACAGATGGCCGTCGAATA
TGTAATTGAAGCAGCTTGCGGAATACAGGAAGTATATTAACCTCCCGAAATGTCGTTGCTTAGTAATG**TAA**CCTG
GAGCTTTTATACACTACATTTCTTTTTATTATTATGAAGAATGGGATACCTCCAGGTTCCAGTAAAATTCTTCT
GACCGAAACCAATGTGGGTGTTAGAAAAATTACCATATAGCTTAATATGTTTATTAGTTCTCTTTGGAAAAAAC
TACCACTGTGGTCTTAAAGGGAAACAAAATATACCATAGGCTAAACCTAAGGCTTCACTCTAGAATGCAAAGCT
GTTTTGCAGCTGTTTTCCCTTAAAGATGTCTGTGCTTTAGTGATATTTAGACCCCTCTCAGTTAAGAAATGCT
TAGATTAATAAAAAAAAAAATTACGTAGGATTAATACAGAAATTAATCATGTCTGATTAATTGCTCTATTAAAAA
AGGGGCATTTAAAGACCCAGCATAACCATTTGTATAATGAGAAATCTAGGGGAAAACCAATCAGTCCAACATGAG
ATTTTAGGAATAGAAATTTGCCGGCCATTTGGAAAGTGAAATGCCACTTAGTTCTCAATTGATGACAGTGTTTGA
ATCATCATAAAAAAATACCTGCTTTTCTCTGGAACAACCAATTGAGCCACTTTATCTCCTTTTGGCAATCTGA
GTAGGCGGGGAACCTAGGCAGGGCTGGCTTTCTTAGCGTGTAACCTTGTTAGCAGCACAGGGCCACACTTAGAA
GGACCCACACTTGGTTCAAGGCTCTGCTATAGCGGAAATCTTAATAATGTTTGAAGAAGGGCCCCATGATTTT
ATTTTGTGCTGAGCCCTCAAATTAATGTCTGTTTCGTGGTGGGAAATATCCTATGTTTTCTTGCTCAAACACCTT
TCTCTCTGAAAGCAGAAAAAGGCACTGATATAAAGGGAAGAGAAGGAGGCTCACCGGAGGGAAGAGAACATAGTG
AAGATTTCCCGCCTTTGGGGAGGTCTGGACCACCCAGGGCCTCCACTGCCACCTTGGCTGGCAAGGGAGAAATGTG
TTGTGTTGCTTAGCTTTAAACAGTCACAGTCTTGTCTCTATCATAGATGAACAAATACTTTCTTGATCATTCT
GTAAGACCAGGAGGTTGGTAAGAGTGACTAACAGCCTAACTTTAATACACATGTATAAAGATGTTTACAGAGAA
AGATGCTCTGTAGAGAATTTGCTACCGAAGTTGGCTCAAGAATTTGTTTTAGTGTTATTTACCAAGATTAGGAC
GTCAGTGGCTTAAATCTTTGAATCTTTTCAAGGACTGCAAGATTATTTGATAAAGAGTAGCATGAATCTTGTC
CTCTAATATTACACAGTAAGTTCAAAGAAAGGATGTAAGTCAAAGACTTGTTACATAGAGGGAAAATGGACTGGG
ATAGAGGACAGACTGATAGTTTCTTTCTTTTCATATCATATGTATAGAGAAATAATTATATCAGAAACTCACAAC

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FIGURE 275B

CTAGACATGGAAAAACAGATTACTGTCTATTGTCAGCATCATTTTCATCTGTAAGTCACTACTGGAATATATTTT
TCTTTTAATTTCCAGTGACTTTAGAATACACACAGTTTTTCCGACTTTTCAAAAATTTGATTAAATGGTTTTATA
GTATAATATTGGGACCCCATACCGTTAGCCCTTGTATGTATACCAACACTGCCAAAGTAAACATTAGGTCAGGC
ATGGTGGCTCAGGCCTGTAATCCCAGCATTTTGGGAGGCTGAGGCAAGTGGATAACTTGAGGTCATGAGTTCGAA
ACCAGCCTGGCCAAAACAGTGAAACCCCGTCTCTACTAAAAATACAAAATTAGCCAGATGTGGTGGCGCACACCT
GTAATCCCAGCTACTCAGGAAGCTGAGGCAGGAAAATCGCTTGAACCTGGGAGGTGGAAGTTGCAGTGAGCCGAG
ATCGCACCCTGCACTCCAGCCTGGGTGACAAGAGCGAACTCCATCTC

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FIGURE 276

MSIHIVALGNEGDTFHQDNRPGLIRTYLGRSPLVSGDESSLLLNAASTVARPVFTEYQASAFGNVCLVVHDCPV
WDIFDSWYTSRNLIGGADIIVIKYVNDKFSFHEVKDNYIPVIKRALNSVPVIAAVGTRQNEELPCTCPLCTS
DRGSCVSTTEGIQLAKELGATYLELHSLDDFYIGKYFGGVLEYFMIQALNQKTSEKMKKRKMSNSFHGIRPPQLE
QPEKMPVLKAEASHYNSDLNLLFCCQCVDVVFYNPDLLKKVVEAHKIVLCAVSHVFMLLFNVKSPTDIQDSSIIR
TTQDLFAINRDТАFFGASHESGNPPLRVIVKDALFCSCLSLILRFIYSGAFQWEELEEDIRKKLKDSGDVSNVI
EKVKCILKTPGKINCLRNCKTYQARKPLWFYNTSLKFFLNKPMLADVVFIEIQGTTVPAHRAILVARCEVMAAMFN
GNYMEAKSVLIPVYGVSKETFLSFLEYLYTDSCCPAGIFQAMCLLICAEMYQVSRLQHICELFIITQLQSMPSRE
LASMNLDIVDLLKKAKFHHSCLSTWLLHFІATNYLIFSQKPEFQDLSVEERSFVEKHRWPSNMYLKQLAEYRKY
IHSRKCRCLVM

FIGURE 277

GCGGCCCGCTGGCCAGGCAACCTATGGGTACCACCGGGTTCTCGCGGGTCTTGCGAACGAACTTTTCCTTGAAA
CTCTCTGGATTCTGTAAACAGTGGGGCTCAGCCCCTCAATGACTGGAGGCTTCGATGGTTCAAAGGGGACCTCC
GGAATCACAGGGCCGGGAGTCGCCATGTCCGGGCCACAGCAGCAGGAGAAAAATCGGGACTCCGACCTCAGCCTCC
CGGTGAAGGTCATGAAAGGGGCGGGGAAACGAATAAATTGAGCCTTGTACGCAGGCGCAAATGCTCGTTGCATCC
TGGGAGTCGTAGTGCTCAGCACGGTAGTGCTACAAAAGGACTACATTTCCCCAAATGCCCGCAAAGCCTTGTCGA
CGCCTTCCGGAAGGAGTTTGTACACGAGGTCTGAGAGACAGAGGCAGCGTGTGAGCTGCTGGTGCGGTGGTC
AGCGCGATGCCCAAGGCCAAGGGCAAACCCGGAGGCAGAAGTTTGTTACAGTGTCAACCGAAAGCGTCTGAAC
CGGAATGCTCGACGGAAGGCAGCGCGCGGAATCGAATGCTCCCACATCCGACATGCCTGGGACCACGCTAAATCG
GTACGGCAGAACCTGGCCGAGATGGGGTTGGCTGTGGACCCCAACAGGGCGGTGCCCTCCGTAAGAGAAAGGTG
AAGGCCATGGAGGTGGACATAGAGGAGAGGCCTAAAGAGCTTGTACGGAAGCCCTATGTGCTGAATGACCTGGAG
GCAGAAGCCAGCCTTCCAGAAAAGAAAGGAAATACTCTGTCTCGGGACCTCATTGACTATGTACGCTACATGGTA
GAGAACCACGGGGAGGACTATAAGGCCATGGCCCGTGATGAGAAGAATTACTATCAAGATACCCAAAAACAGATT
CGGAGTAAGATCAACGTCTATAAACGCTTTTACCCAGCAGAGTGGCAAGACTTCCTCGATTCTTTGCAGAAGAGG
AAGATGGAGGTGGAGTAACTGGTTTACATCACAGCTGCCCCAGGCTGAGGCGTCCCCCGGACCAGTGAAGCTGGA
GCCAGGGTGTAAGGCAAGGAGGTGCTGTGTGGCTCCAGAGGGGCTGGCCAGGTCCCATGGAATCAGAAGGTTACA
CACACACGTGCACACTCCCCGCTCTGGGGAAGGAAGTGTCTCAGAGGCTCCAATTTATATTCTGTTGGGGGTTT
ACGGAAGCCAGAACCTGCTGTTTTCAGGGTGGGTGATGTAAATATAGTGTGTACATAATAAGCAAATATATT
TTAAA

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FIGURE 278

MPKAKGKTRRQKFGYSVNRKRLNRNARRKAARGIECSHIRHAWDHAKSVRQNLAEMLAVDPNRVPLRKRKVKA
MEVDIEERPKELVKPYVLNDLEAEASLPEKKGNTLSRDLIDYVRVMVENHGEDYKAMARDEKNYYQDTPKQIRS
KINVYKRFYPAEWQDFLDSLQKRKMEVE

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FIGURE 279A

CGTCCACCGTGGAGTCTCTCCTTGCTTTGGGTCCACTGAGCCCCACACATTGTTGAGTGTCTGATTGTCTCCTTG
 CCCTTACAGGACAGGAAAAGCGAAATCTCTGTTTCTTTGTAGGGACCTTTCTTTTGTAGGTGAAAGGGACAGAAAT
 ATGATTCTGGCCTCCTTGATGGTGAATACAGGAACACTTTTTCAGATAAAATTACAATAGAGAGGAGTCAGCTTATTT
 AAACAAACTGAGGTTAAGCCAGAGATTGCAGTTAACAGTGAAAAAATTTAAAGCAAGTACCTGGATGGATGCAAA
 GCAGTGCCAGGAGACCCAACTTACGTGACAGAGATGATCATTGTCACTCATTATTATGTTTTGAGCACCAGCC
 ATGTGCCAGGTCCAGAACTAGAAGAACTTGGGTGTAGGTGAGATCATAGGAACAGTCCCTGCCCCAGCTGAACA
 TCAGGAAGCCAGACTGGGAGCACATGCCGTGGCTGACTAGGACTCCAGCAGGGACCTGGGGTTCCATCAGATCAG
 TGTAAAGCGATGGTTTCCCAAATGAGACCTCTCCAGAGATGGTTTATTCCACCCCGCAATGGCCACCAGAAACAT
 TGTGCTGACCAGAGGGCTTCACTGCCCCAAACCCCAAAATCACACTCCAGGATGAGAAACCTAAAAGTCTATCTT
 GATGAGGCTTCATAGCTGGAACACCCCTCATGGATCCACAGGCTGCATTGATGAAAGGAGACTCCAGGAAGT
 CGAGCCATTCCAGGCAGACATGTAGCAAAAGCCGAGCTGGGGTCCGCCCTCATGCAATAAATAACACCTGTGCA
 CATAAGAGAGGTGACAGGCAGGGCATCCCTGGGGACCTGGGCCTGTGGCACGTGAAGAAACACCCAAGAGAGCAC
 GAAGTCCCAATGCCATGACCAGATATTTCCGTGCCAGGCATGCTTCTGGGTCCCAGCAAAAGACACACAAATCCG
 TGTCTTGGGGACCCACAGTCTAGTGACCTAGGGCTGGCCGGGTGCGACGCTTCTTTTCAAGGGCTCGAAAGCCT
 CTGCATGGATGCAACTTTGGGGGAAAAGTAACCCCTAACCCCTCTGCTTCTCTCATCTCCCTCTTCTGTGTATAT
 GTCTGTCTCTTCTCTCTGTGTGTGCCCTTCCCCACTCCCATCCCCATTCTTTTTTTATTTATTTATTTTGGT
 GGTGTGTGGCTCGGTTTCTGTTGGTCCCTCGTGTGGCCCCCTCCCTGCTGCAGAACTCGTCCAGCTCGGCCTCC
 TCCGAAGCCTCGGAAACCTGCCAGTCAGTGAGCGAGTGCAGCTCCCCACCTCTGTCTAGCTCGGGCTCCACCATG
 GGTGCTTGGGTGTCCACAGAGAAGGTGACCGCCGGGTGGCAGCCACAGCGGCCCCACTCTCCCTGGTCCCCCTG
 CCTGCTGCTCAGACAGCCCTCACAGCCGCGGCAACCTGGAAGCTCAGAATCGACACCAAGAGTGGGGCTCCTCTT
 GGGGACAGAGGGTGGGACAAGGCTGAGAGCATTTTCTAGAATGAGTGCCTGGCTGCTGGACAATGACCACATGGT
 TGTCTCAAGGGAGAGGAAGGGGTATGGGGAATTTGGAGGTGTGAAGGCTTTCTCCCAGACCAGGTGTTGCGTGCC
 TGTCCATCCTCTCCCTCCCTTCCCAGCCACCCACCAGACCGTTGGATGAGCCATGTCACTGTGTGACAGGCTG
 TGTGCTTTTCCGCTTTTTTAGTTTTGCACCCCCACCCCTGCCCCTGATTGAGAATGTGCTCCTGAGCAATGCGAC
 GATTTTGGAAACCTAGAATGAACAGATTCAATTTGAAGATGCTTTGGAATTTTTAAATTTGCATAATGAAATGAGC
 AAATCACTATCACCATTAAATGAGGCTTCATTAGTTACATTATCAAAAACCATTGACAAGGCCACAAATTGAGGG
 CACTGATCAATTTCCAACTTCTAAAACGTAGGTCAAACATAGATGCTTATTTGCTGTCAAACCTCATGTGCATTC
 TTTGCACCCCCGCTCTTTTCTCTTGATCACAGATCATCCGTGAGCAGCAGAGCCCCAATGTTTGTTTTATTTAT
 AAATATTACAGTTTCCCTCCCTTGAATGTCAATGCCATTTTGTATCTCCGCACTCATCTGTTATATTAATTTT
 TTTTCTTTTCCCCCCCCCTTTTTTGTGTTTCCAGTTGTCTAACGGGTTTTCTCACTATAGTTTATCAAGTGAG
 TCCCACGTGGGGCCCACGGGTGCAGGCCTTTTCCCTCATTGCCTGCCTGCCCTCCCGCTGCTCCCTCGGGTCACC
 TCTGTCCACCTTCCAGACTACGCTCATTATTACACCATTTGGGCCCCGGCATGTTCCCGTCATCTCAGATCCCTAGC
 TGGAAGGACTGGGCTAAGCCTGGGCCCTATGACCAGCCTCTGGTGAACACCCCTGCAGCGCCGCAAGAGAAGCGA
 GAACCGGACCCCAACGGGGGAGGACCCACTACCGCCAGCGGCCACCTGCAGCAGCTGAGGAGGCTCAGAGACCA
 CGGAGCATGACTGTATCGGCTGCCACCAGGCCTGGTGAGGAGATGGAGGCTTGTGAGGAGCTGGCCCTGGCCCTG
 TCTCGGGGCTGCAGCTGGACACCCAGAGGAGCAGCGGGACTCGCTTCAGTGCTCCAGCGGCTACAGCACCCAG
 ACAACACCCCTGCTGCTCTGAGGACACCATCCCTTCCCAAGTTTCAGATTATGATTATTTCTCTGTAAGTGGT
 GACCAGGAGGCAGATCAGCAGGAGTTCGACAAGTCCTCCACCATTTCCAAGAAACAGCGACATCAGCCAGTCCCTAC
 CGACGGATGTTCCAAGCCAAGCGTCCAGCCTCAACTGCTGGCCTCCCCACCACTTGGGACCTGCTATGGTCACT
 CCAGGGGTGCAACTATCCGACGGACCCCTTCCACCAAGCCTTCTGTCCGCCGGGGAACCATTTGAGCTGGTCCC
 ATCCCCATCAAGACACCCGTGATCCCTGTCAAGACCCCAACCGTCCCAGACCTCCCAGGGGTGTTGCCAGCCCCCT
 CCAGATGGGCCAGAAGAGCGGGGGGAGCACAGCCCTGAGTCGCCATCTGTGGGTGAGGGCCCCCAAGGTGTCACC
 AGCATGCCCTCCTCAATGTGGAGCGGCCAAGCTTCCGTAAACCTCCACTTCCAGGCCCCAAGCCCAGTATCCCT
 GAGGAGCACAGACAGGCAATTCCAGAAAGTGAAGCTGAAGACCAGGAACGGGAACCCCCAAGTGCCACTGTCTCC
 CCAGGCCAGATTCCAGAGAGTGACCCTGCAGACCTGAGCCCCAAGGGATACTCCACAAGGAGAAGACATGCTGAAC
 GCCATCCGAAGGGGCGTGAAACTGAAGAAGACCACGACAAACGATCGCTCAGCCCCCTCGCTTTTCTTAGGTTAC
 AAGAAATGCGCCGTGGGGAATGAAGTGTTCATTATAAATAAACCTAATTTGTCTTGATCCATTCCACTCTATAAT
 AAAACAAAAGATTTTGTAGGCAACTCGGAATATAGCTCTTTTGAAAGTACTCGACACCTTTAGATAAGAATTA

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FIGURE 279B

ACCAACCTATGTAAGTACATAATCTTGATCTTTTAATTTGTAATATTGACAATTTTCTTTCTGCACATTTTAA
TCTTAGTTTCCCTTTTGATTTTCTGAAGGTGCCAAATTCATTTAACTTTTTTACAAGTCTTTGTAAAATTTTA
AATGCATAAAGGGGGTTGGGGCAGGGGAACACGAAGTAGTTAATTTTAGAAAAGGATTTACTATACTTCACTCT
TCTTTTTTTTTCCCAAGCTTTTGTAGATGCATTGTAGTAGTCTAGCTTAGAAGCAAATGCAAGTTATTTTAA
TGTACAACTAAATGGGTAAGAGGTAAAATCTTCATTTAAATATACTATGTTCTGGATGAAAAGAGCAGGAGTAA
CAATTGATGAGCAATATTCAGAGTGAAGTAAATCTGGAATGGTAGACTGTGTTGGGATTGGGGGGAGGGCCATG
GGAGGGGTACATCGTCAACATAGCCGATCCTGTTACATTTAAGAGTAGCCTCGTAGGTTGAATTTCTTCTGGTAG
CTTCATGGTAAATGCATCCGAATAAGCCATACTGGATTGCAGTGTGTTTCTGTAGGGTGTGTTAAGGACTTGAC
TTCCTTTCTCCCATGATTCTCTGGACTGCACACAGCACCCACAACCAGCCCCATGCATGCTGCTGCCTCTGGGC
AGTCGTAGAATCTCCCACTTCAGTTTCTCGTTGATTGTACTCACCTTTATGGAATCCAAATACATCCAAAAGGGT
AAGGCAGTTTTAAAAATGTGAAAACATTTAAAAATGATAATAGCAGGGAATTCCTAGATTATAGTAAATGCCTTT
TACTTAACTGTGCCAGCAGGCTGGGTGCGTTAAAAAGCCCCAAGTATTTTGAAAAAACTCGAACAGATTTGACAA
GGGTAGCCAGCTTGGAGTCTAGCAACTTGCCAATGTGTTTACCAATCTGGGGGCTTGTTTTTCTTTTCTTTCTTCT
AAATAAATGGCAGTTAACTGGCTTTACAGTAAACATTGAAGAGAGGAGGATTGTTTATTGTCACTGGGAATCTG
ACCACTATACTGTCCTTTTTTTGTATTCTGGGTAATGTTTTTGGAAAAGATTTGTCTTTTCTAAGTGGAAGTTA
AATTTGTTATACTGCCATCCCTAAAGCCAACAGAGATTTGTAGATTTAAAGGGATCACATTTGAAGACAATAG
TGTTTAAGAAAGCAAGCAAGTCCCTTAGCAGTCAGGTCATAACAGGGCACATTTCTGACCGAACCTCTCAAGGC
AGAGGAGGAGTTTGGTGGGTTTCATACACCCTGCAGATTCCTGTTGGCTCTAACCTCAATTACCTAATCTTATG
CTTTAACACATAACTGCATTGGATGTGAGAGTAACGTACCGTATGGTCATTGTTCTATATATTAACATTGAACAC
TGCTGCGATTGCTCAAGGACATTTTATGTTACGGCTTTAAAGCAAAGGCATGATTATTAGAAACTATTTAAGCTT
TTTTCTTTGAAAAACAAGCTTCTTTTACAGAATATAAAACAACAGTAGTGCCTGTGGTTTAGCCCACCAATCTTGA
TGACTAAAAGTAGCTGATGCATTGTGCATATGATGCTTGAGATGGTTTTTGCAAAGCAGAAATCGCTGCAAGGT
AATCACAATAGATAAAAGTGGTATTTTAAACCTTTGAAATAAATGGATGTAAGTGTACCTTGGTACAGCTTTTCA
CTTGTTTAGTTTTTAAACGTTAGTATAATCTGAATAAAATAAATGTTGCCAAATTCAATGTAGAAAGAATGTGAC
AACACACCTTGGGTAGTTCTGCTTGTGTTTTTGCATATTGTAAAAGCAGTGTACAGCTAAAAAGAAAGAAATCG
TTTCTAACAGTAAATTATTGTGCTTTAGTTGCTAGTTTGTACTGAGAGTTGACCTCTCCCTGTGCAGTTTTTTGT
TCTAAACTTGTATAAATAACAATTGTGTAATGTGTCTCCCTCCTACATTGTAACAATTGCTTCAGCCTACGTTAT
AAATAAAGAACCCTAGATT

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FIGURE 280

MFPSSQIPSWKDWAKPGPYDQPLVNTLQRRKEKREPDNNGGPTTASGPPAAAEAAQRPRSM TVSAATRPGEEME
ACEELALALSRGLQLD TQRSSRDSLQCSSGYSTQTTTPCCSEDTIPSQVSDYDYFSVSGDQEADQQEFDKSSTIP
RNSDISQSYRRMFQAKRPASTAGLPTTLGPAMVTPGVATIR RTPSTKPSVRRGTIGAGPIPIKTPVIPVKTPTVP
DLPGVLPAPPDGP EERGEHSPESPSVGE GPQGVTSMPSSMWSGQASVNPPLPGPKPSIPEEHRQAIP ESEAEDQE
REPPSATVSPGQIPESDPADLSPRDT PQGEDMLNAIRRGVKLKKTTTNDRSAPRS

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FIGURE 281

CGTCCTTCCTCAGCCGCGGGTGATCGTAGCTCGGAAATGGCGGGATTGGTGCTATGGAGAAATTTTGGTAGAA
TATAAGAGTGCAGTGGAGAAGAACTGGCAGAGTACAAATGTAACACCAACACAGCAATTGAACTAAAATTAGTT
CGTTTTCTGAAGATCTTGAAAATGACATTAGAACTTTCTTTCTGAGTATACCCATCAACTCTTTGGGGATGAT
GAAACTGCTTTTGGTTACAAGGGTCTAAAGATCCTGTTATACTATATTGCTGGTAGCCTGTCAACAATGTTCCGT
GTTGAATATGCATCTAAAGTTGATGAGAAGTTGACTGTGTAGAGGCAGATGATGTTGAGGGCAAAATTAGACAA
ATCATTCCACCTGGATTTTGCAAAACACGAATGATTTCCCTTTCTTACTGGAAAAGGAAGTTGATTTCAAGCCA
TTCGGAACCTTACTTCATACCTACTCAGTTCTCAGTCCAACAGGAGGAGAAAACTTTACCTTTCAGATATATAAG
GCTGACATGACATGTAGAGGCTTTCGAGAATATCATGAAAGGCTTCAGACCTTTTTGATGTGGTTTATTGAACT
GCTAGCTTTATTGACGTGGATGATGAAAGATGGCACTACTTTCTAGTATTTGAGAAGTATAATAAGGATGGAGCT
ACGCTCTTTGCGACCGTAGGCTACATGACAGTCTATAATTACTATGTGTACCCAGACAAAACCCGGCCACGTGTA
AGTCAGATGCTGATTTTGACTCCATTTCAGGTCAAGGCCATGGTGCTCAACTTCTTGAAACAGTTCATAGATAC
TACACTGAATTTCTTACAGTTCTTGATATTACAGCGGAAGATCCATCCAAAAGCTATGTGAAATTACGAGACTTT
GTGCTTGTGAAGCTTTGTCAAGATTTGCCCTGTTTTTCCCGGGAAAAATTAATGCAAGGATTCAATGAAGATATG
GCGATAGAGGCACAACAGAAGTTCAAATAAATAAGCAACACGCTAGAAGGGTTTATGAAATTCTTCGACTACTG
GTAAGTACATGAGTGATGCCGAACAATACAGAAGCTACAGACTGGATATTTAAAAGAAGACTAATTAGCCCATAT
AAGAAAAAGCAGAGAGATCTTGCTAAGATGAGAAAATGTCTCAGACCAGAAGAACTGACAAACCAGATGAACCAA
ATAGAAATAAGCATGCAACATGAACAGCTGGAAGAGAGTTTTTCAGGAAGTGTGGAAGATTACCGGCGTGTTATT
GAACGACTTGCTCAAGAGTAAAGATTATACTGCTCTGTACAGGAAGCTTGCAAATTTTCTGTACAATGTGCTGTG
AAAAATCTGATGACTTTAATTTTAAATCTTGAGACATTTTGCTTATACTAAAAGTTATCTATCTTTAGTTGAAT
ATTTTCTTTTGGAGAGATTGTATATTTTAAATACTGTTTAGAGTTTATGAGCATATATTGCATTTAAAGAAAGA
TAAAGCTTCTGAAATACTACTGCAATTGCTTCCCTTCTTAAACAGTATAATAAATGCTTAGTTGTGAT

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FIGURE 282

MAGFGAMEKFLVEYKSAVEKKLAEYKCNNTNTAIELKLVRFPEDLENDIRTFFPEYTHQLFGDDETAFGYKGLKIL
LYYIAGSLSTMFRVEYASKVDENFDCVEADDVEGKIRQIIPPGFCTNTNDFLSLLEKEVDFKPFGTLLHTYSVLS
PTGGENFTFQIYKADMTCRGFREYHERLQTFLMWFIETASFIDVDDERWHYFLVFEKYNKDGATLFATVGYMTVY
NYYVYPDKTRPRVSQMLILTPFQGGHGAQLLETVHRYYTEFPTVLDITAEDPSKSYVKLRDFVLVKLCQDLPCF
SREKLMQGFNEDMAIEAQQKFKINKQHARRVYEILRLLVTDMSDAEQYRSYRLDIKRRLISPYKKKQRD LAKMRK
CLRPEELTNQMNQIEISMQHEQLEESFQELVEDYRRVIERLAQE

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FIGURE 283A

GAATTCGGCACGAGGCCATTGAATCCCAGTCCTAACAGAAGTACTGCGAATCTTGTGGCCTCATTCTGAACAAAA
GGGATTAGAGAAGAAAAATCTCTTGATATAAGGCTTGAAAGCAAGGGCAGGCAATCTTGGTTGTGAATATTTTCT
GATTTTTCCAGAAATCAAGCAGAAGATTGAGCTGCTGATGTCAGTTAACTCTGAGAAGTCGTCCTCTTCAGAAAG
GCCGGAGCCTCAACAGAAAGCTCCTTTAGTTCCTCCTCCTCCACCGCCACCACCACCACCACCGCCACCTTTGCC
AGACCCACACCCCCGGAGCCAGAGGAGATCCTGGGATCAGATGATGAGGAGCAAGAGGACCCTGCGGACTA
CTGCAAAGGTGGATATCATCCAGTGAAAATTGGAGACCTCTTCAATGGCCGGTATCATGTTATTAGAAAGCTTGG
ATGGGGGCACTTCTCTACTGTCTGGCTGTGCTGGGATATGCAGGGGAAAAGATTGTTGCAATGAAAGTTGTAAA
AAGTGCCACAGCATTATACGGAGACAGCCTTGGATGAAATAAAATTGCTCAAATGTGTTTCGAGAAAGTGATCCAG
TGACCCAAACAAAGACATGGTGGTCCAGCTCATTGACGACTTCAAGATTTCAAGGCATGAATGGGATACATGTCTG
CATGGTCTTTCGAAGTACTTGGCCACCATCTCCTCAAGTGGATCATCAAATCCAATATCAAGGCCTCCAGTACG
TTGTGTGAAGAGTATCATTTCGACAGGTCTTCAAGGGTTAGATTACTTACACAGTAAGTGCAAGATCATTTCATAC
TGACATAAAGCCGGAAAAATATCTTGATGTGTGTGGATGATGCATATGTGAGAAGAATGGCAGCTGAGCCTGAGTG
GCAGAAAGCAGGTGCTCCTCCTCCTCAGGGTCTGCAGTGAGTACGGCTCCACAGCAGAAACCTATAGGAAAAAT
ATCTAAAAACAAAAAGAAAAAAGTGAAGAAAGAAACAGAAGAGGCAGGCTGAGTTATTGGAGAAGCGCCTGCAGGA
GATAGAAGAATTGGAGCGAGAAGCTGAAAGGAAAATAATAGAAGAAAACATCACCTCAGCTGCACCTTCCAATGA
CCAGGATGGCGAATACTGCCAGAGGTGAACTAAAAACAACAGGATTAGAGGAGGCGGCTGAGGCAGAGACTGC
AAAGGACAATGGTGAAGCTGAGGACCAGGAAGAGAAAGAAGATGCTGAGAAAGAAAACATTGAAAAAGATGAAGA
TGATGTAGATCAGGAACTTGCGAACATAGACCCTACGTGGATAGAATCACCTAAAACCAATGGCCATATTGAGAA
TGGCCCATTTCTACTGGAGCAGCAACTGGACGATGAAGATGATGATGAAGAAGACTGCCCAAATCCTGAGGAATA
TAATCTTGATGAGCCAAATGCAGAAAGTGATTACACATATAGCAGCTCCTATGAACAATTCAATGGTGAATTGCC
AAATGGACGACATAAAATTTCCCGAGTCACAGTTCCAGAGTTTTCCACCTCGTTGTTCTCTGGATCCTTAGAACC
TGTGGCCTGCGGCTCTGTGCTTTCTGAGGGATCACCCTTACTGAGCAAGAGGAGAGCAGTCCATCCCATGACAG
AAGCAGAACGGTTTTACGCTCCAGTACTGGGGATTTGCCAAAAGCAAAAACCCGGGCAGCTGACTTGTGTGGTGAA
TCCCCTGGATCCGCGGAATCGAGATAAAATTAGAGTAAAAATTGCTGACCTGGGAAATGCTTGTGTGGGTGCATAA
ACACTTCACGGAAGACATCCAGACGCGTCAGTACCGCTCCATAGAGGTTTTAATAGGAGCGGGGTACAGCACCCC
TGCGGACATCTGGAGCACGGCGTGTATGGCATTGAGCTGGCAACGGGAGATTATTTGTTTGAACCACATTCTGG
GGAAGACTATTCCAGAGACGAAGACCACATAGCCACATCATAGAGCTGCTAGGCAGTATTCCAAGGCACCTTTGC
TCTATCTGAAAAATATTCTCGGAATTCTTCAATCGCAGAGGAGAAGTGCACACATCACCAAGCTGAAGCCCTG
GAGCCTCTTTGATGTACTTGTGGAAAAGTATGGCTGGCCCCATGAAGATGCTGCACAGTTTACAGATTTTCTGAT
CCCGATGTTAGAAATGGTTCCAGAAAAACGAGCCTCAGCTGGCGAATGTCGGCATCCTTGGTTGAATTCTTAGCA
AATTCTACCAATATTGCATTCTGAGCTAGCAATGTTCCAGTACATTGGACCTAAACGGTGACTCTCATTCTTT
AACAGGATTACAAGTGAGCTGGCTTCATCCTCAGACCTTTATTTTGCTTTGAGGTACTGTTGTTTGACATTTTGC
TTTTTGTGCACTGTGATCCTGGGGAAGGGTAGTCTTTTGCTTTCAGCTAAGTAGTTTACTGACCATTTTCTTCTG
GAAACAATAACATGTCTCTAAGCATTGTTTCTGTGTGTGTGACATTCAAATGTCATTTTTTTGAATGAAAAAT
ACTTTCCCCTTTGTGTTTTGGCAGGTTTTGTAACATTTATGAAGAAATATTTTAGCTGAGTACTATATAATTTA
CAATCTTAAGAAATTATCAAGTTGGAACCAAGAAATAGCAAGGAAATGTACAATTTTATCTTCTGGCAAAGGGAC
ATCATTCTGTATTATAGTGTATGTAATGCACCCTGTAAATGTTACTTTCCATTAAATATGGGAGGGGGACTCA
AATTTAGAAAAAGCTACCAAGTCTTGAGTGCTTTGTAGCCTATGTTGCATGTAGCGGACTTTAACTGCTCCAAGG
AGTTGTGCAAACTTTTCATTCCATAACAGTCTTTTCACATTGGATTTTAAACAAAGTGGCTCTGGGTTATAAGAT
GTCATTCTCTATATGGCACTTTAAAGGAAGAAAAGATATGTTTCTCATTTCTAAATATGCATTATAATTTAGCAG
TCCCATTTGTGATTTTGCATATTTTTAAAAGTACTTTTAAAGAAGAGCAATTTCCCTTTAAAAATGTGATGGCTC
AGTACCATGTCTATGTTGCCCTCCTCTGGGCGCTGTAAGTTAAGCTCTACATAGATTAAATTGGAGAAACGTGTTAA
TTGTGTGGAATGAAAAAATACATATATTTTTGGAAAAGCATGATCATGCTTGTCTAGAACACAAGGTATGGTATA
TACAATTTGCAGTGCAGTGGGCAGAATACTTCTCAGCTCAAAGATAACAGTGATCACATTTCATTCCATAGGTA
GCTTTACGTGTGGCTACAACAAATTTTACTAGCTTTTTTCAATTGCTTTCCATGAAACGAAGTTGAGAAAATGATT
TTCCCTTTGCAGTTGCACACAGTTTTGTTTTATGCATTTCTTAAATTAATTGTAGACTCCAGGATACAAACCA
TAGTAGGCAATACAATTTAGAATGTAATATATAGAGGTATATTAGCCTCTTTAGAAGTCAGTGGATTGAATGTCT
TTTTATTTTAAATTTTACATTCATTAAAGGTGCCTCGTTTTTGACTTTGTCCATTAAACATTTATCCATATGCCTTT

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FIGURE 283B

GCAATAACTAGATTGTGAAAAGCTAACAAGTGTTGTAAACAATAATCCATTGTTTGAGGTGCTTGCAGTTGTCTTA
AAAATTAAAGTGTTTGGTTTTTTTTTTTCCAGAAAAAAAAAAAAAAAAAAAAAAAAAATTCCTGC

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FIGURE 284

MSVNSEKSSSSSERPEPQQKAPLVPPPPPPPPPPPLPDPTPPEPEEEILGSDDEEQEDPADYCKGGYHPVKIGD
LFNGRYHVIRKLGWGHFSTVWLCWDMQGKRFVAMKVVKSAQHYTETALDEIKLLKCVRES DSDPNKDMVVQLID
DFKISGMNGIHVCMVFEVLGHLLKWI IKSNYQGLPVRCVKS IIRQVLQGLDYLHCKKI IHTDIKPENILMCVD
DAYVRRMAAEPEWQKAGAPPPSGSAVSTAPQQKPIGKISKNNKKKKLKKKQKRQAEELLEKRLQEIEELEREAERKI
IEENITSAAPSNDQDGEYCPEVKLKTGLEEAEEAETA KDNGEAEDQEEKEDA EKENIEKDEDDVDQELANIDPT
WIESPKTNNGHIENGPF SLEQQLDDEDDDEEDCPNPEEYNLDEPNAESDYTYSSSYEQFNGELPNGRHKIPESQFP
EFSTSLFSGSLPEPVACGSVLSEGSPLTEQEESSPSHDSRTVSASSTGDLPAKAKTRAADLLVNPLDPRNRDKIRV
KIADLGNACWVHKHFTEDIQTRQYRSIEVLIGAGYSTPADIWSTACMAFELATGDYLFEPHSGEDYSRDEDHIAH
IIELLGSIPRHFALSGKYSREFFNRRGELRHITKLKPWSLFDVLVEKYGWPHEAQAQFTDFLIPMLEMVPEKRAS
AGECRHPWLNS

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FIGURE 285

CCGGTGCGCCCGGCGGAGCGCGCGTGCCTGGCCAGCGCGCTCCCCGCTTCTGCTTGGCTTTCCGGCTTAATTTTC
CTCGGCGGGATTAAAGTTGGAAATTGACCGGAGAATTGAGTTGCCGGGGAACAGAGCCCCGGCCGCCAGAGC
GATGTTCCCGCAGAGCCGGCACCCGACGCCGACCAGGCTGCAGGCCAGCCCTTCAAGTTCACTATCCCGGAGTC
CCTGGACCGGATTAAAGAGGAATTCCAGTTCTTGCAGGCGCAGTATCACAGCCTTAAATTGGAATGTGAGAACT
GGCAAGTAAAAAGACAGAAATGCAGAGGCACTATGTGATGTATTATGAAATGTCATATGGATTAAACATTGAAAT
GCACAAACAGACTGAAATCGCCAAGAGATTGAATACGATTTGTGCACAAGTCATCCCATTTCTGTCTCAGGAACA
TCAACAACAGGTGGCCCCAGGCTGTTGAACGTGCCAAACAGGTGACCATGGCAGAGTTGAATGCCATCATCGGGCA
GCAGCAGTTGCAAGCTCAGCATCTTTCTCATGGCCACGGACCCCCAGTTCCCTTACGCCTCACCCCTTCGGGACT
TCAGCCTCCTGGAATCCCGCCCCCTCGGGGGCAGTGCCGGCCTTCTTGCGCTGTCCAGTGCTCTGAGTGGGCAGTC
TCACTTGGCAATAAAAGATGACAAGAAGCACACGATGCAGAGCACACAGAGACAGAGAGCCGGGCACAAGTAA
TTCCCTCCTGGTCCCAGACAGTCTAAGAGGCACAGATAAACGCAGAAATGGACCTGAATTTTCCAATGACATCAA
GAAAAGGAAGGTGGATGATAAGGACTCCAGCCACTATGACAGTGATGGTGACAAAAGCGATGACAACTTAGTTGT
GGATGTGTCTAATGAGGACCTTCTTCTCCGCGAGCAAGCCCTGCCACTCGCCCCGGGAAAATGGAATCGACAA
AAATCGCCTGCTAAAGAAGGATGCTTCTAGCAGTCCAGCTTCCACGGCCTCCTCGGCAAGTTCCACTTCTTTGAA
ATCCAAAGAAATGAGCTTGATGAAAAGCCAGCACGCCTGTTCTGAAATCCAGCACACCAACGCCTCGGAGCGA
CATGCCAACGCCGGGCACCAGCGCCACTCCAGGCCTCCGTCCAGGTCTCGGCAAGCCTCCAGCCATAGACCCCT
CGTTAACCAAGCGGCAGCTGGCTTGAGGACACCCCTGGCAGTGCCCGGCCCATATCCTGCTCCTTTTGGGATGGT
CCCCACGCTGGCATGAACGGCGAGCTGACCAGCCAGGCGCTGCCTACGCCAGTTTACACAACATGTCGCCCA
GATGAGCGCCGAGCCGCCGCGGCCGCTGGTGGCTACGGGCGCTCCCCATGGTGGGGTTTGATCCTCCCC
TCACATGAGAGTACCTACCATTCTTCCAAACCTGGCAGGAATCCCTGGGGGAAACCTGCATACTCCTTCCACGT
TACTGCAGACGGTCAGATGCAGCCTGTCCCTTTTCCCCCGACGCCCTCATCGGACCCGGAATCCCCCGGCATGC
TCGCCAGATCAACACCCTCAACCACGGGGAGGTGGTGTGCGCTGTGACCATCAGCAACCCACGAGACACGTGTA
CACAGGCGGGAAGGGCTGCGTCAAGGTCTGGGACATCAGCCACCTGGCAATAAGAGCCCTGTCTCCAGCTCGA
CTGTCTGAACAGAGACAATTATATCCGTTCTGTAAATTGCTACCCGATGGCTGCATCTCATAGTGGGAGGGGA
AGCCAGTACTTTGTCCATTTGGGACCTGGCGGCTCCAACCCCGCGCATCAAGGCGGAGCTGACGTCTCGCCCC
CGCCTGCTACGCCCTGGCCATCAGCCCCGATTCCAAGGTCTGCTTCTCATGCTGCAGCGACGGCAACATCGCTGT
GTGGGATCTGCACAACCAGACACTAGTGAGGCAATTCCAGGGCCACACAGACGGAGCCAGCTGTATTGACATTTT
TAATGATGGCACCAAGCTCTGGACGGGTGGTTTGGACAACACAGTCAGGTCTTGGGACCTGCGCGAGGGGCGGCA
GCTGCAGCAGCAGACTTACCTCCAGATCTTCTCCCTGGGGTACTGCCCCACCGGGGAGTGGCTGGCAGTGGG
CATGGAGAGCAGCAATGTGGAGGTGCTGCACGTGAACAAGCCTGACAAGTACCAGCTGCACCTGCATGAGAGCTG
CGTGCTGTCCCTGAAATTTGCTTACTGTGGTAAATGGTTTGTGAGTACTGGAAAAGATAACCTCCTCAATGCTTG
GCGGACCCCTATGGAGCCAGCATATTCCAGTCCAAAGAGTCTCGTCAGTGCTTAGCTGTGACATCTCTGTGGA
TGATAAGTACATAGTCACTGGCTCGGGGGACAAGAAGGCTACAGTCTATGAAGTCATCTACT**TG**AAACATTATGT
GGTTTAACGTTTATAGTTGAATTGGGCCAAAATGTTTCGAATTTATAGAAATAGAAAAGTTGTAACTTTAAAAGA
GAAAAAAATTACAAACACCTGTTTCCAAACCTTGACAGAAAATACTTTGAGTCTACAAAGAGGAGGCGACAAG
TCCATCAGCAGAAAGTCACCTGTCTACATAGACCAAATGGAGCACCAAGGCCAAGCGGACAGAGGGGCCATGGGT
TGTAGGATTGAGGAACGGAATCTGCCGACTCACATGACAGCCCATTCTTTCTTTCTGGGTGATCTGGGGATCACG
CCTTGCCCAAGTGTGAGATTACCTTTCTGTTCTTGCAGTTCACCTCACTTTCCGTCCTTTGTAGAGCAGTGGTG
TCTCCAATGAACCTGTTTCTGGTTTTGCATCTTGTGAAATGTTTTTTGTATTTTTGTGTAAGGTTAAACATTT
GTATAAATTGTAAATATATTTGGTTTATTACAGTAAAGGCTTTAGTACCAATAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAA

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FIGURE 286

MFPQSRHPTPHQAAGQPFKFTIPESLDRIKEEFQFLQAQYHSLKLECEKLASEKTEMQRHYVMYYEMSYGLNIEM
HKQTEIAKRLNTICAQVIPFLSQEHQQQVAQAVERAKQVTMAELNAIIGQQQLQAQHLSHGHGPPVPLTPHPSGL
QPPGIPPLGGSAGLLALSSALSGQSHLAIKDDKKHDAEHHRDREPGTSSNLLVPDSLRTDKRRNGPEFSNDIK
KRKVDDKDSSHYDSGDGKSDDNLVVDVSNEDPSSPRASPAHSPRENGIDKNRLKKDASSPASTASSASSTSLK
SKEMSLHEKASTPVLKSSTPTPRSDMPTPGTSATPGLRPGLGKPPAIDPLVNQAAAGLRTPLAVPGYPAPFGMV
PHAGMNGELTSPGAAYASLHNMS PQMSAAAAAAVVAYGRSPMVGFDPFPHMRVPTIPP NLAGIPGGKPAYSFHV
TADGQM QPVFPFPDALIGPGIPRHARQINTLNHGEVVC AVTISNPTRHVYTGKGKCVKVWDISHPGNKSPVSQLD
CLNRDNYIRSKLLPDGCTLIVGGEASTLSIWDLAAPT PRIKAELTSSAPACYALAI SPDSKVCFSCCSDGNI AV
WDLHNQTLVRQFQGHTDGASCIDISNDGTKLWTGGLDNTVRSWDLREGRQLQQHDFTSQIFSLGYCPTGEWLAVG
MESSNVEVLHV NKPDKYQLHLHESCVLSLKFAYCGKWFVSTGKDNLLNAWRTPYGASIFQSKESSSVLSCDISVD
DKYIVTGSGDKKATVYEVY

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FIGURE 287

GGCACGAGGAGGAGAAGAGCAAAGAAAAGCAGTCCGTCTGGATTTGTTTGCCCAGGACTGGCGCCGCGCACGCGG
ATCGCCGAGGGGAGTGCGGTGCGAGTCACCGCGCCCCCGCTCCCCGCCGGGCAGCTGAGGCCGGGGTTGGAG
CGCTGCCCCCGCGCACAGTCCCCGAGCGCCCGACGTCTCCGCGCAGGTTCTTGAAGCAGCTGGGCCTGGGGCGCC
CACTAATGTGGCCCTGAGGGCCGAGCCCGCACCGACGGGAGCGGGAGCCGGAGCAGCTGCGGGCGCCGAGTGGC
CGGTGCGCCCGGCGGAGCGCGCTGCGTGGCCAGCGCGCTCCCCGCTTCTGCTTGGCTTTCCGGCTTAATTTTCC
TCGGCGGGATTAAAGTTGGAAATTGACCGGAGAATTGAGTTGCCGGGGAACAGAGCCCCGGCCGCCCGAGAGCG
ATGTTCCCCGAGAGCCGGCACCCGACCGCGCACCAGGCTGCAGGCCAGCCCTTCAAGTTCACTATCCCGAGTCC
CTGGACCGGATTAAAGAGGAATTCAGTTCTTGCAGGCGCAGTATCACAGCCTTAAATTGGAATGTGAGAACTG
GCAAGTGAAAAGACAGAAATGCAGAGGCACATATGTGATGTATTATGAAATGTCATATGGATTAAACATTGAAATG
CACAAACAGACTGAAATCGCCAAGAGATTGAATACGATTTGTGCACAAGTCATCCCATTCTGTCTCAGGAACAT
CAACAACAGGTGGCCCAGGCTGTTGAACGTGCCAAACAGGTGACCATGGCAGAGTTGAATGCCATCATCGGGCAG
CAGCAGTTGCAAGCTCAGCATCTTTCTCATGGCCACGGACCCCCAGTTCCCCTTACGCCTCACCTTCGGGACTT
CAGCCTCCTGGAATCCCGCCCCCTCGGGGGCAGTGCCGGCCTTCTTGCGCTGTCTAGTGCTCTGAGTGGGCAGTCT
CACTTGGCAATAAAAGATGACAAGAAGCACACGATGCAGAGCACCACAGAGACAGAGAGCCGGGCACAAGTAAT
TCCCTCCTGGTCCCAGACAGTCTAAGAGGCACAGATAAAACGCAGAAATGGACCTGAATTTTCCAATGACATCAAG
AAAAGGAAGGTGGATGATAAGGACTCCAGCCACTATGACAGTGATGGTGACAAAAGCGATGACAACCTAGTTGTG
GATGTGTCTAATGAGGACCCTTCTTCTCCGCGAGCAAGCCCTGCCACTCGCCCCGGGAAAATGGAATCGACAAA
AATCGCCTGCTAAAGAAGGATGCTTCTAGCAGTCCAGCTTCCACGGCCTCCTCGGCAAGTTCCACTTCTTTGAAA
TCCAAAGAAATGAGCTTGCATGAAAAAGCCAGCACGCCTGTTCTGAAATCCAGCACACCAACGCCTCGGAGCGAC
ATGCCAACGCCGGGCACCAGCGCCACTCCAGGCCTCCGTCCAGGTCTCGGCAAGCCTCCAGCCATAGACCCCCCTC
GTTAACCAAGCGGCAGCTGGCTTGAGGACACCCCTGGCAGTGCCCGGCCCATATCCTGCTCCTTTTGGGATGGTC
CCCCACGCTGGCATGAACGGCGAGCTGACCAGCCCAGGCGCTGCCTACGCCAGTTTACACAACATGTGCCCCAG
ATGAGCGCCGAGCCGCCGCGGCCGCGCTGGTGGCCTACGGGCGCTCCCCCATGGTGGGGTTTGATCCTCCCCCT
CACATGAGAGTACCTACCATTCTTCCAAACCTGGCAGGAATCCCTGGGGGGAAACCTGCATACTCCTTCCACGTT
ACTGCAGACGGTCAGATGCAGCCTGTCCCTTTTCCCCCGACGCCCTCATCGGACCCGGAATCCCCCGGCATGCT
CGCCAGATCAACACCCCTCAACCACGGGGAGGTGGTGTGCGCTGTGACCATCAGCAACCCACAGACACGTGTAC
ACAGGCGGGAAGGGCTGCGTCAAGGTCTGGGACATCAGCCACCCTGGCAATAAGAGCCCTGTCTCCAGCTCGAC
TGTCTGAACAGAGACAATTATATCCGTTTCTGTAAATTGCTACCCGATGGCTGCACTCTCATAGTGGGAGGGGAA
GCCAGTACTTTGTCCATTTGGGACCTGGCGGCTCCAACCCCGCGCATCAAGGCGGAGCTGACGTCTCGGCCCCC
GCCTGCTACGCCCTGGCCATCAGCCCCGATTCCAAGGTCTGCTTCTCATGCTGCAGCGACGGCAACATCGCTGTG
TGGGATCTGCACAACCAGACACTAGTGAGGCAATTCCAGGGCCACACAGACGGAGCCAGCTGTATTGACATTTCT
AATGATGGCACCAAGCTCTGGACGGGTGGTTTGGACAACACAGTCAGGTCCTGGGACCTGCGCGAGGGGCGGCAG
CTGCAGCAGCAGACTTCACCTCCCAGATCTTCTCCCTGGGGTACTGCCCCACCGGGGAGTGGCTGGCAGTGGGC
ATGGAGAGCAGCAATGTGGAGGTGCTGCACGTGAACAAGCCTGACAAGTACCAGCTGCACCTGCATGAGAGCTGC
GTGCTGTCCCTGAAATTTGCTTACTGTGGTAAATGGTTTGTGAGTACTGGAAAAGATAACCTCCTCAATGCTTGG
CGGACCCCTATGGAGCCAGCATATTCCAGTCCAAGAGTCCTCGTCAGTGCTTAGCTGTGACATCTCTGTGGAT
GATAAGTACATAGTCACTGGCTCGGGGGACAAGAAGGCTACAGTCTATGAAGTCATCTACTGAAACATTATGTG
GTTTAACGTTTATAGTTGAATTGGGCCAAAATGTTTCGAATTTATAGAAATAGAAAAGTTGTAACTTTAAAAGAG
AAAAAAATTACAAACACCTGTTTCCAAACCTTGACAGAAAACCTACTTTGAGTCTACAAAGAGGAGGCGACAAGT
CCATCAGCAGAAAGTCACCTGTCTACATAGACCAAATGGAGCACCAAGGCCAAGCGGACAGAGGGGCCATGGGTT
GTAGGATTGAGGAACGGAATCTGCCGACTCACATGACAGCCATTCTTTCTTTCTGGGTGATCTGGGGATCACGC
CTTGCCCAAGTGTGAGATTACCTTTCTGTTTCTTGCAGTTACCTCACTTTCCGTCCTTTGTAGAGCAGTGGTGT
CTCCAATGAACCTGTTTCTGGTTTTGCATCTTGTGAAATGTTTTTTGTATTTTGTGTAAGGTTAAACATTG
TATAAATTGTAAATATATTTGGTTTTATTACAGTAAAGGCTTTAGTACCAATAAAAAAAAAAAAAA

FIGURE 288

MFPQSRHPTPHQAAGQPFKFTIPESLDRIKEEFQFLQAQYHSLKLECEKLASEKTEMQRHYVMYEEMSYGLNIEM
HKQTEIAKRLNTICAQVIPFLSQEHQQQVAQAVERAQVMTAELNAIIGQQQLQAQHLSHGHGPPVPLTPHPSTGL
QPPGIPPLGGSAGLLALSSALSGQSHLAIKDDKKHDAEHHRDREPGETSNLLVPSLRGTDKRRNGPEFSNDIK
KRKVDDKDSHYDSDGDKSDDNLVVDVSNEDPSSPRASPAHSPRENGIDKNRLKKDASSSPASTASSASSTSLK
SKEMSLHEKASTPVLKSSTFTPRSDMPTPGTSATPGLRPGLGKPPAIDPLVNQAAAGLRTPLAVPGYPAPFGMV
PHAGMNGELTSPGAAYASLHNMSQMSAAAAAAVVAYGRSPMVGFDPFPHMRVPTIPPNLGIPGGKPAYSFHV
TADGQMOPVFPFPPDALIGPGIPRHARQINTLNHGEVVCVAVTISNPTRHVYTGKGKCVKVWDISHPGNKSPVSQLD
CLNRDNYIRSKLLPDGCTLIIVGGEASTLSIWDLAAPTTPRIKAELTSSAPACYALAI SPDSKVCFSCCSDGNIAV
WDLHNQTLVRQFQGHTDGASCIDISNDGTLKLTGGLDNTVRSWDLREGRQLQQHDFTSQIFSLGYCPTGEWLAVG
MESSNVEVLHVKNPKDKYQLHLHESCVLSLKFA YCGKWFVSTGKDNLLNAWRTPYGASIFQSKESSSVLSCDISVD
DKYIVTGSGDKKATVYEVY

FIGURE 289A

CTACTACAGTGGCGGACGTACAGGACCTGTTTCTACTGCAGGGGGATCCAAAAACAAGCCCGTGGAGCAACAGACGA
GCAACACAGCAGCTGCAAGACATTGTTTCTCTCCCTCTGCCCCCCCTTCCCCACGCAACCCCAGATCCATTTACA
CTTTACAGTTTTTACCTCACAAAACCTACTACAAGCACCAAGCTCCCTGATGGAAAGGAGCATCGTGCATCAAGTC
ACCAGGGTGGTCCATTCAAGCTGCAGATTTGTTTGTTCATCCTTGTACAGCAATCTCCTCCTCCACTGCCACTACA
GGGAAGTGCATCACATGTGAGCATACTGGAGCATAGTGAAAGAGTCTATTTTGAAGCTTCAAACCTTAGTGCTGCT
GCAGACCAGGAACAAGAGAGAAAGAGTGGATTTCAGCCTGCACGGATGGTCTTGAAACACAAATGGTTTTTGGTC
TAGGCGTTTTTACACTGAGATTCTCCACTGCCACCCTTTCTACTCAAGCAAAATCTTCGTGAAAAGATCTGCTGCA
AGGAACTGATAGCTTATGGTTCTCCATTGTGATGAAAGCACATGGTACAGTTTTTCCAAGAAATTAGACCATTTT
CTTCGTGAGAAAGAAATCGACGTGCTGTTTTTCATAGGGTATTTCTCACTTCTCTGTGAAAGGAAGAAAGAACACG
CCTGAGCCCAAGAGCCCTCAGGAGCCCTCCAGAGCCTGTGGGAAGTCTCCATGGTGAAGTATAGGCTGAGGCTAC
CTGTGAACAGTACGCAGTGAATGTTTCATCCAGAGCTGCTGTTGGCGGATTGTACCCACGGGGAGATGATTCTCTCA
TGAAGAGCCTGGATCCCCTACAGAAATCAAATGTGACTTTCCGTTTATCAGACTAAAATCAGAGCCATCCAGACA
GTGAAACAGTACACCGTGGAGGGGGGACGGCGAAAAATGAAATCCAACCAAGAGCGGAGCAACGAATGCCTGCCTC
CCAAGAAGCGCGAGATCCCCGCCACCAGCCGGTCTCCGAGGAGAAGGCCCTACCTGCCCAGCGACAACCACC
GGGTGGAGGGCACAGCATGGCTCCCGGGCAACCCTGGTGGCCGGGGCCACGGGGGCGGGAGGCATGGGCCGGCAG
GGACCTCGGTGGAGCTTGGTTTACAACAGGGAATAGGTTTACACAAAGCATTGTCCACAGGGCTGGACTACTCCC
CGCCCAGCGCTCCAGGTCTGTCCCCGTGGCCACCACGCTGCCTGCCGCTACGCCACCCCGCAGCCAGGGACCC
CGGTGTCCCCCGTGCAGTACGCTCACCTGCCGCACACCTTCCAGTTCATTGGGTCTCCCAATACAGTGAACCT
ATGCCAGCTTCATCCCATCACAGCTGATCCCCCAACCGCCAACCCCGTACCAGTGCAGTGGCCTCGGCCGCGAG
GGGCCACCACTCCATCCAGCGCTCCAGCTGGAGGCCTATTCCACTCTGCTGGCCAACATGGGCAGTCTGAGCC
AGACGCCGGGACACAAGGCTGAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGC
AGC
CCCCCCCACCAGCCCAGCAGAACCAGTACGTCCACATTTCCAGTTCTCCGCAGAACACCGGCCGACCGCCTCTC
CTCCGGCCATCCCCGTCCACCTCCACCCCCACCAGACGATGATCCACACACGCTCACCTTGGGGCCCCCCTCCC
AGGTGCTCATGCAATACGCCGACTCCGGCAGCCACTTTGTCCCTCGGGAGGCCACCAAGAAAGCTGAGAGCAGCC
GGCTGCAGCAGGCCATCCAGGCCAAGGAGGTCTTGAACGGTGAGATGGAGAAGAGCCGGCGGTACGGGGCCCCGT
CCTCAGCCGACCTGGGCCTGGGCAAGGCAGGCGGCAAGTCGGTTCTCACCCTACGAGTCCAGGCACGTGGTG
TCCACCCGAGCCCCCTCAGACTACAGCAGTCGTGATCCTTCGGGGGTCCGGGCCTCTGTGATGGTCTGCCCCAACA
GCAACACGCCCGCAGCTGACCTGGAGGTGCAACAGGCCACTCATCGTGAAGCCTCCCCTTCTACCTTCAACGACA
AAAGTGGCCTGCATTTAGGGAAGCCTGGCCACCGGTCTACGCGCTCTCACCACACAGGTTCATTAGACCACAC
ACAGTGCTTCAGAGCCACTCCCGGTGGGACTGCCAGCCACGGCCTTCTACGCAGGGACTCAACCCCTGTTCATCG
GCTACCTGAGCGGCCAGCAGCAAGCAATCACCTACGCCGGCAGCCTGCCCCAGCACCTGGTGATCCCCGGCACAC
AGCCCCTGTCTATCCCGGTCCGGCAGCACTGACATGGAAGCGTCGGGGGCAGCCCCGGCCATAGTCACGTATCCC
CCCAGTTTGCTGCAGTGCCTCACACGTTTCGTACCCACCGCCCTTCCCAAGAGCGAGAACTTCAACCTGAGGCC
TGGTACCCAGGCCGCTACCCAGCCATGGTGCAGGCCAGATCCACCTGCCTGTGGTGCAGTCCGTGGCCTCCC
CGGCGGGCGGCTCCCCCTACGCTGCCTCCCTACTTTCATGAAAGGCTCCATCATCCAGTTGGCCAACGGGGAGCTAA
AGAAGGTGGAAGACTTAAAAACAGAAGATTTTCATCCAGAGTGCAGAGATAAGCAACGACCTGAAGATCGACTCCA
GCACCGTAGAGAGGATTGAAGACAGCCATAGCCCGGGCGTGGCCGTGATACAGTTGCCCGTCGGGGAGCACCGAG
CCCAGGTGAGCGTTGAAGTTTTGGTAGAGTATCCTTTTTTTGTGTTTGGACAGGGCTGGTCATCCTGCTGTCCGG
AGAGAACCAGCCAGCTCTTTGATTTGCCGTGTTCCAAACTCTCAGTTGGGGATGTCTGCATCTCGCTTACCCTCA
AGAACCTGAAGAACGGCTCTGTATAAAAAGGGCCAGCCCGTGGATCCCGCCAGCGTCCTGCTGAAGCACTCAAAGG
CCGACGGCCTGGCGGGCAGCAGACACAGGTATGCCGAGCAGGAAAACGGAATCAACCAGGGGAGTGCCAGATGC
TCTCTGAGAATGGCGAACTGAAGTTTCAGAGAAAAATGGGATTGCCTGCAGCGCCCTTCTCACCAAAATAGAAC
CCAGCAAGCCCCGCGGCAACGAGGAAGAGGAGGTGGTTCGGCGCCAGAGAGCCGCAAACTGGAGAAGTCAGAAGACG
AACCACCTTTGACTCTTCTAAGCCTTCTCTAATTCTCAGGAGGTTAAGATTTGCATTGAAGGCCGGTCTAATG
TAGGCAAGTAGAGGCAGCGTGGGGGAAAGGAAACGTGGCTCTCCCTTATCATTGTATCCAGATTACTGTACTGT
AGGCTAAAATAACACAGTATTTACATGTTATCTTCTAATTTTAGGTTTCTGTTCTAACCTTGTTCATTAGAGTTA
CAGCAGGTGTGTGCGAGGAGACTGGTGCATATGCTTTTTCCACGAGTGTCTGTGAGTGCAGGGCGGGAGGAAGG

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FIGURE 289B

GCACAGCAGGAGCGGTCAGGGCTCCAGGCATCCCCGGGGAAGAAAGGAACGGGGCTTCACAGTGCCTGCCTTCTC
TAGCGGCACAGAAGCAGCCGGGGGCGCTGACTCCCGCTAGTGTCAGGAGAAAAGTCCCGTGGGAAGAGTCCTGCA
GGGGTGCAGGGTTGCACGCATGTGGGGGTGCACAGGCGCTGTGGCGGCGAGTGAGGGTCTCTTTTTCTCTGCCTC
CCTCTGCCTCACTCTCTTGCTATCGGCATGGGCCGGGGGGTTTCAGAGCAGTGTCTCTGGGGTTCACAGTGC
AAAATCAACATCAGGAACCCAGCTTCAGGGCATCGCGGAGACGCGTCAGATGGCAGATTTGGAAAGTTAACCATT
TAAAAGAACATTTTCTCTCAACATATTTTACAATAAAAGCAACTTTTAATTGTATAGATATATATTTCCCCCT
ATGGGGCCTGACTGCACTGATATATATTTTTTTTAAAGAGCAACTGCCACATGCGGGATTTCAATTTCTGCTTTTT
ACTAGTGCAGCGATGTCACCAGGGTGTGTGGTGGACAGGGAAGCCCTGCTGTCATGGCCCCACATGGGGTAAG
GGGGGTGGGGGTGGGGGAGAGGGAGAGCGAACACCCACGCTGGTTTCTGTGCAGTGTTAGGAAAACCAATCA
GGTTATTGCATTGACTTCACTCCCAAGAGGTAGATGCAAACCTGCCCTCAGTGAGAGCAACAGAAGCTCTTCACG
TTGAGTTTGCAGAAATCTTTTGTCTTTGAACTCTAGTACTGTTTATAGTTTCATGACTATGGACAACCTCGGGTGCC
ACTTTTTTTTTTTTCAGATTCCAGTGTGACATGAGGAATTAGATTTTGAAGATGAGCATATATTACTATCTTTAA
GCATTTAAAAATACTGTTTACACTTTATTACCAAGCATCTTGGTCTCTCATTCAACAAGTACTGTATCTCACTTT
AAACTCTTTGGGGAAAAAACAAAAACAAAAAACTAAGTTGCTTTCTTTTTTCAACACTGTAACCTACATTTCA
GCTCTGCAGAATTGCTGAAGAGCAAGATATTGAAAGTTTCAATGTGGTTTAAAGGGATGAATGTGAATTATGAAC
TAGTATGTGACAATAAATGACCACCAAGTACTACCTGACGGGAGGCACTTTTCACTTTGATGTCTGAGAATCAGT
TCAAGGCATATGCAGAGTTGGCAGAGAAACTGAGAGAAAAGGGATGGAGAAGAGAATACTCATTTTTGTCCAGTG
TTTTTCTTTTTAAGATGAACTTTTAAAGAACCTTGCGATTTGCACATATTGAGTTTATAACTTGTGTGATATTCC
TGCAGTTTTTATCCAATAACATTGTGGGAAAGGTTTGGGGGACTGAACGAGCATAAATAAATGTAGCAAAATTTT
TTTCTAACCTGCCTAAACTCTAGGCCATTTTATAAGGTTATGTTCTTTGAAAATTCATTTTGGTCTTTTTACCA
CATCTGTCACAAAAGCCAGGTCTTAGCGGGCTCTTAGAAACTCTGAGAATTTTCTTCAGATTCAATTGAGAGAGT
TTTCCATAAAGACATTTATATATGTGAGCAAGATTTTTTTTAAACAATTACTTTATTATTGTTGTTATTAATGTT
ATTTTCAGAAATGGCTTTTTTTTTTCTATTCAAAATCAAATCGAGATTTAATGTTTGGTACAAACCCAGAAAGGGTA
TTTCATAGTTTTTAAACCTTTCAATCCAGAGATCCGAAATATCATTGTGGGTTTTGAATGCATCTTTAAAGTG
CTTTAAAAAAAAGTTTTATAAGTAGGGAGAAATTTTTAAATATTCTTACTTGGATGGCTGCAACTAACTGAACA
AATACCTGACTTTTCTTTTACCCCATTTGAAAATAGTACTTTCTTCGTTTCACAAATTAATAAAAAAATCTGGTAT
CAACCCACATTTTGGCTGTCTAGTATTCAATTTACATTTAGGGTTTACCAGGACTAATGATTTTTATAAACCGTTT
TCTGGGGTGTACCAAAAACATTTGAATAGGTTTAGAATAGCTAGAATAGTTTCTTGACTTTCTCGAATTTCAAT
ACCCCTCTCAGCATGCTTGCAGAGAGCTGGGTGGGCTCATTCTTGCACTCATACTGCTTATTTAGTGCTGTATTTT
TTAAACGTTTCTGTTTCAGAGAATTTGCTTAATCTTCCATATATTCTGCTCAGGGCACTTGCAATTATTAGGTTTT
GTTTTTCTTTTTGTTTTTTAGCCTTTGATGGTAAGAGGAATACGGGCTGCCACATAGACTTTGTCTCATTAATA
TCACTATTTACAACCTCATGTGGAATCAGAAAAACACACACCACCTTTTGGCTTACTTCAGATATTGAATTGACTG
GATCCACTAAACCAACACTAAGATGGGAAAACACACATGGTTTGGAGCAATAGGAACATCATCATAATTTTTGTG
GTTCTATTTCAAGGTATAGGAATTATAAAATAATTGGTTCTTTCTAAACACTTGTCCTTTTCAATTTCTGCTTT
TTTAGCATGTGCAATACTTTCTGTGCCAATAGAGTCTGACCAGTGTGCTATATAGTTAAAGCTCATTCCCTTTTG
GCTTTTCTCTGTTTGGTTGATCTTCCCCATTCTGGCCAGAGCAGGGCTGGAGGGAAGGAGCCAGGAGGGAGAGA
GCCTCCACCTTTCCCTGCTGCGGATGCTGAGTGTGGGGCGGGGAGCCTTCAGGAGCCCCGTGCGTCTGCCGC
CACGTTGCAGAAAGAGCCAGCCAAGGAGACCCGGGGGAGGAACCGCAGTGTCCCTGTACCACACGGAATAGTG
AATGTGGAGTGTGGAGAGGAAGGAGGCAGATTCATTCTAAGACGCACTCTGGAGCCATGTAGCCTGGAGTCAAC
CCATTTTCCACGGTCTTTTCTGCAAGTGGGCAGGCCCTCTCGGGTCTGTGTCCTTGAGACTTGAGCCCTGC
CTCTGAGCCTGGACGGGAAGTGTGGCCTGTTGTGTGTGTGCGTTCTGAGCGTGTGGCCAGTGGCTGTGGAGGGG
ACCACCTGCCACCCACGGTCACCACTCCCTTGTGGCAGCTTTCTCTTCAAATAGGAAGAACGCACAGAGGGCAGG
AGCCTCCTGTTTGCAGACGTTGGCGGGCCCCGAGGCTCCAGAGCAGCCTCTGTACCGCTTCTGTGTAGCAAAAC
ATTAACGATGACAGGGGTAGAAATCTTCCGTGCCGTTTCAAGGATCAGCCATGTGCCTCTGTACTATG
TCCACTTTGCAATATTTACCGACAGCCGTCTTTTGTCTTTCTTTCTGTTTTCCATTTTTTAACTAGTAACAGC
AGGCCTTTTTCGTTTACAATGGAACACAATCACCAAGAAATTAGTCAGGGCGAAAAGAAAAAATAATACTATTA
ATAAGAAACCAACAAACAAGAACCTCTCTTTCTAGGGATTTCTAAATATATAAAATGACTGTTCTTGAATGTT
TAACTTAAGAATTATTTAGTTTGTCTGGGCCACACTGGGGCAGAGGGGGAGGGAGGGATACAGAGATGGATGC

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FIGURE 290

FIGURE 290

MKSNQERSNECLPPKKREIPATSRSSEKAPTLPDSNHRVEGTAWLPGNPGGRGHGGGRHGPAGTSVELGLQQGI
 GLHKALSTGLDYSPPSAPRSVPVATTLPAAAYATPQPGTPVSPVQYAHLPHTFQFIGSSQYSGTYASFIPSQLIPP
 TANPVTSAVASAAGATTPSQRSQLEAYSTLLANMGSLSQTPGHKAEQQQQQQQQQQQQHQQQQQQQQQQQQQQQ
 QHLSRAPGLITPGSPPPAQNQYVHISSSPQNTGRTASPPAIPVHLHPQTMIPHTLTTLGPPSQVVMQYADSGSH
 FVPREATKKAESSRLQQA IQAKEVLNGEMEKSRRYGAPSSADLGLGKAGGKSVPHPHYESRHVVVHPSPSDYSSRD
 PSGVRASVMVLPNSNTPAADLEVQQATHREASPSTLNDKSGLHLGKPGHRSYALSPHTVIQTTHSASEPLPVGLP
 ATAFYAGTQPPVIGYLSGQQQAITYAGSLPQHLVIPGTQPLLIPVGSTDEASGAAPAIVTSSPQFAAVPHTFVT
 TALPKSENFNPEALVTQAAYPAMVQAQIHLPPVQSVASPAAPPTLPPYFMKGSIIQLANGELKKVEDLKTEDFI
 QSAEISNDLKIDSSTVERIEDSHSPGVAVIQFVAGEHRAQVSVEVLVEYPPFFVFGQGWSSCCPERTSOLFDLPCS
 KLSVGDVICISLTLKNLKNQSVKKGPVDPASVLLKHSKADGLAGSRHRYAEQENGINEQGSQAQMLSENGELKFPEK
 MGLPAAPFLTKIEPSKPAATRKRWSAPESRKLEKSEDEPPLTLPKPSLIPQEVKICIEGRSNVVGK

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FIGURE 291A

CTACTACAGTGGCGGACGTACAGGACCTGTTTCTACTGCAGGGGGATCCAAAACAAGCCCCGTGGAGCAACAGCCA
GAGCAACAGCAGCTGCAAGACATTGTTTCTCTCCCTCTGCCCCCCTTCCCCACGCAACCCCAGATCCATTTACA
CTTTACAGTTTTTACCTCACAAAACTACTACAAGCACCAAGCTCCCTGATGGAAAGGAGCATCGTGCATCAAGTC
ACCAGGGTGGTCCATTCAAGCTGCAGATTTGTTTGTATCCTTGTACAGCAATCTCCTCCTCCACTGCCACTACA
GGGAAGTGCATCACATGTCAGCATACTGGAGCATAGTGAAAGAGTCTATTTTGAAGCTTCAAACCTTAGTGCTGCT
GCAGACCAGGAACAAGAGAGAAAGAGTGGATTTTCAGCCTGCACGGATGGTCTTGAAACACAAATGGTTTTTGGTC
TAGGCGTTTTTACTGAGATTCTCCACTGCCACCCTTTCTACTCAAGCAAAATCTTCGTGAAAAGATCTGCTGCA
AGGAAGTATAGCTTATGGTTCTCCATTGTGATGAAAGCACATGGTACAGTTTTCCAAAGAAATTAGACCATTTT
CTTCGTGAGAAAGAAATCGACGTGCTGTTTTCATAGGGTATTTCTCACTTCTCTGTGAAAGGAAGAAAGAACAG
CCTGAGCCCAAGAGCCCTCAGGAGCCCTCCAGAGCCTGTGGGAAGTCTCCATGGTGAAGTATAGGCTGAGGCTAC
CTGTGAACAGTACGCAGTGAATGTTTCATCCAGAGCTGCTGTTGGCGGATTGTACCCACGGGGAGATGATTCTCA
TGAAGAGCCTGGATCCCCACAGAAATCAAATGTGACTTTCCGTTTATCAGACTAAAATCAGAGCCATCCAGACA
GTGAAACAGTCACCGTGGAGGGGGGACGGCGAAAAATGAAATCCAACCAAGAGCGGAGCAACGAATGCCTGCCTC
CCAAGAAGCGCGAGATCCCCGCCACCAGCCGGTCTCCGAGGAGAAGGCCCTACCCTGCCAGCGACAACCACC
GGGTGGAGGGGCACAGCATGGCTCCCGGGCAACCTGGTGGCCGGGGCCACGGGGGCGGGAGGCATGGGCCGGCAG
GGACCTCGGTGGAGCTTGGTTTACAACAGGGAATAGGTTTACACAAAGCATTGTCCACAGGGCTGGACTACTCCC
CGCCAGCGCTCCCAGGTCTGTCCCCGTGGCCACCACGCTGCCTGCCCGTACGCCACCCCGCAGCCAGGGACCC
CGGTGTCCCCCGTGCAGTACGCTCACCTGCCGCACACCTTCCAGTTTATTGGGTCTTCCCAATACAGTGGAACTT
ATGCCAGCTTCATCCCATCACAGCTGATCCCCCAACCGCCAACCCCGTCAACAGTGCAGTGGCCTCGGCCGAG
GGGCCACCACTCCATCCCAGCGCTCCCAGCTGGAGGCCTATTCCACTCTGCTGGCCAACATGGGCAGTCTGAGCC
AGACGCCGGGACACAAGGCTGAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGC
AGC
CCCCCCCCACAGCCAGCAGAACAGTACGTCCACATTTCCAGTTCTCCGAGAACACCGGCCGACCGCCTCTC
CTCCGGCCATCCCCGTCCACCTCCACCCCCACAGACGATGATCCACACACGCTCACCTGGGGCCCCCTCCC
AGGTCTGTCATGCAATACGCCGACTCCGGCAGCCACTTTGTCCCTCGGGAGGCCACCAAGAAAGCTGAGAGCAGCC
GGCTGCAGCAGGCCATCCAGGCCAAGGAGGTCTGAACGGTGAGATGGAGAAGAGCCGGCGGTACGGGGCCCCGT
CCTCAGCCGACCTGGGCCTGGGCAAGGCAGGCGGCAAGTCGGTTTCTCACCCGTACGAGTCCAGGCACGTGGTGG
TCCACCCGAGCCCCCTCAGACTACAGCAGTCGTATCCTTCGGGGGTCCGGGCCTCTGTGATGGTCTGCCAACA
GCAACACGCCCGCAGCTGACCTGGAGGTGCAACAGGCCACTCATCGTGAAGCCTCCCCTTCTACCCTCAACGACA
AAAGTGGCCTGCATTTAGGGAAGCCTGGCCACCGGTCTTACGCGCTCTCACCCACACGGTCAATCAGACCACAC
ACAGTGCTTCAGAGCCACTCCCGGTGGGACTGCCAGCCACGGCCTTCTACGCAGGGACTCAACCCCTGTCTATCG
GCTACCTGAGCGGCCAGCAGCAAGCAATCACCTACGCCGGCAGCCTGCCCCAGCACCTGGTGATCCCCGGCACAC
AGCCCTGCTCATCCCGGTCCGGCAGCACTGACATGGAAGCGTCGGGGGCAGCCCCGGCCATAGTCACGTATCCC
CCCAGTTTGTGTCAGTGCCTCACAGTTTCGTACCACCGCCCTTCCCAAGAGCGAGAACTTCAACCCTGAGGCC
TGGTCAACCCAGGCCGCTACCCAGCCATGGTGCAGGCCAGATCCACCTGCCTGTGGTGCAGTCCGTGGCCTCCC
CGGCGGCGGCTCCCCCTACGCTGCCTCCCTACTTCATGAAAGGCTCCATCATCAGTTGGCCAACGGGGAGCTAA
AGAAGGTGGAAGACTTAAAAACAGAAGATTTTCATCCAGAGTGCAGAGATAAGCAACGACCTGAAGATCGACTCCA
GCACCGTAGAGAGGATTGAAGACAGCCATAGCCCGGGCGTGGCCGTGATACAGTTCCGCCGTGGGGAGCACCGAG
CCCAGGTACAGCGTTGAAGTTTTGGTAGAGTATCCTTTTTTGTGTTTGGACAGGGCTGGTCATCCTGCTGTCCGG
AGAGAACCAGCCAGCTCTTTGATTGCGGTGTTCCAACTCTCAGTTGGGGATGTCTGCATCTCGCTTACCCTCA
AGAACCTGAAGAACGGCTCTGTTAAAAAGGGCCAGCCCGTGGATCCCGCCAGCGTCTCTGTAAGCACTCAAAGG
CCGACGGCCTGGCGGGCAGCAGACACAGGTATGCCGAGCAGGAAAACGGAATCAACCAGGGGAGTGCCAGATGC
TCTCTGAGAATGGCGAACTGAAGTTTCCAGAGAAAATGGGATTGCCTGCAGCGCCCTTCTCACCAAAATAGAAC
CCAGCAAGCCCGCGGCAACGAGGAAGAGGAGGTGGTCGGCGCCAGAGAGCCGCAAACTGGAGAAGTCAGAAGACG
AACCACCTTTGACTCTTCTTAAGCCTTCTCTAATTCCTCAGGAGGTAAAGATTTGCATTGAAGGCCGGTCTAATG
TAGGCAAGTAGAGGCAGCGTGGGGGAAAGGAAACGTGGCTCTCCCTTATCATTTGTATCCAGATTACTGTACTGT
AGGCTAAAATAACACAGTATTTACATGTTATCTTCTTAATTTTAGGTTTCTGTTCTAACCTTGTCAATTAGAGTTA
CAGCAGGTGTGTCCGAGGAGACTGGTGCATATGCTTTTTTCCACGAGTGTCTGTCACTGAGCGGGCGGGAGGAAGG

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FIGURE 291B

GCACAGCAGGAGCGGTTCAGGGCTCCAGGCATCCCCGGGAAGAAAGGAACGGGGCTTCACAGTGCCTGCCTTCTC
TAGCGGCACAGAAGCAGCCGGGGGCGCTGACTCCCGCTAGTGTTCAGGAGAAAAGTCCCGTGGGAAGAGTCCTGCA
GGGGTGCAGGGTTGCACGCATGTGGGGGTGCACAGGCGCTGTGGCGGCGAGTGAGGGTCTCTTTTCTCTGCCTC
CCTCTGCCTCACTCTCTTGCTATCGGCATGGGCCGGGGGGTTTCAGAGCAGTGTCTCTGGGGTTCACACGTGC
AAAATCAACATCAGGAACCCAGCTTCAGGGCATCGCGGAGACGCGTCAGATGGCAGATTGGAAAGTTAACCATT
TAAAAGAACATTTTTCTCTCCAACATATTTTACAATAAAAGCAACTTTTAATTGTATAGATATATATTTCCCCCT
ATGGGGCCTGACTGCACTGATATATATTTTTTTTTTAAAGAGCAACTGCCACATGCGGGATTTTCATTTCTGCTTTTT
ACTAGTGCAGCGATGTCACCAGGGTGTGTGGTGGACAGGGAAGCCCCCTGCTGTCTATGGCCCCACATGGGGTAAG
GGGGGTGGGGGTGGGGGAGAGAGAGCGAACACCCACGCTGGTTTCTGTGCAGTGTAGGAAAACCAATCA
GGTTATTGCATTGACTTCACTCCCAAGAGGTAGATGCAAACTGCCCTTCAGTGAGAGCAACAGAAGCTCTTCACG
TTGAGTTTGCAGAAATCTTTTGTCTTTGAACTCTAGTACTGTTTATAGTTCATGACTATGGACAACTCGGGTGCC
ACTTTTTTTTTTTTCAGATTCCAGTGTGACATGAGGAATTAGATTTTGAAGATGAGCATATATTACTATCTTTAA
GCATTTAAAAATACTGTTTCACTTTTATTACCAAGCATCTTGGTCTCTCATTCAACAAGTACTGTATCTCACTTT
AAACTCTTTGGGGAAAAAACAAAAACAAAAAACTAAGTTGCTTTCTTTTTTCAACACTGTAACACTACATTTCA
GCTCTGCAGAATTGCTGAAGAGCAAGATATTGAAAGTTTCAATGTGGTTTAAAGGGATGAATGTGAATTATGAAC
TAGTATGTGACAATAAATGACCACCAAGTACTACCTGACGGGAGGCACTTTTCATTTGATGTCTGAGAATCAGT
TCAAGGCATATGCAGAGTTGGCAGAGAAACTGAGAGAAAAGGGATGGAGAAGAGAATACTCATTTTTGTCCAGTG
TTTTTCTTTTTTAAGATGAACTTTTAAAGAACCTTGCGATTTGCACATATTGAGTTTATAACTGTGTGATATTCC
TGCAGTTTTTATCCAATAACATTGTGGGAAAGGTTTGGGGGACTGAACGAGCATAAATAAATGTAGCAAAATTTCT
TTTCTAACCTGCCTAAACTCTAGGCCATTTTATAAGGTTATGTTCCCTTTGAAAATTCATTTTGGTCTTTTTACCA
CATCTGTCACAAAAAGCCAGGTCTTAGCGGGCTCTTAGAAACTCTGAGAATTTTCTTCAGATTCATTGAGAGAGT
TTTCCATAAAGACATTTATATATGTGAGCAAGATTTTTTTTTTAAACAATTACTTTATTATTGTTGTTATTAATGTT
ATTTTCAGAATGGCTTTTTTTTTTCTATTCAAATCAAATCGAGATTTAATGTTTGGTACAAACCCAGAAAGGGTA
TTTCATAGTTTTTAAACCTTTTCATTCCAGAGATCCGAAATATCATTGTGGGTTTTGAATGCATCTTTAAAGTG
CTTTAAAAAAAAGTTTTATAAGTAGGGAGAAATTTTTAAATATTCTTACTTGGATGGCTGCAACTAAACTGAACA
AATACCTGACTTTTTCTTTTACCCATTGAAAATAGTACTTCTTCGTTTACAAATTAATAAAAAAATCTGGTAT
CAACCCACATTTTGGCTGTCTAGTATTCAATTTACATTTAGGGTTCACCAGGACTAATGATTTTTATAAACCGTTT
TCTGGGGTGTACCAAAAACATTTGAATAGGTTTAGAATAGCTAGAATAGTTCCTTGACTTTCCTCGAATTTCAAT
ACCCCTCAGCATGCTTGCAGAGAGCTGGGTGGGCTCATTCTTGCACTCATACTGCTTATTTAGTGCTGTATTTT
TTAAACGTTTCTGTTCAGAGAACTTGCTTAATCTTCCATATATTCTGCTCAGGGCACTTGCAATTATTAGGTTTT
GTTTTTCTTTTTGTTTTTTAGCCTTTGATGGTAAGAGGAATACGGGCTGCCACATAGACTTTGTTCTCATTAATA
TCACTATTTACAACCTCATGTGGACTCAGAAAAACACACACCACCTTTTGGCTTACTTCGAGTATTGAATTGACTG
GATCCACTAAACCAACACTAAGATGGGAAAACACACATGGTTTGGAGCAATAGGAACATCATATAATTTTTGTG
GTTCTATTTTCAAGTATAGGAATTATAAAATAATTGGTTCTTTCTAAACACTTGTCCTTTTCAATTTCTGCTTT
TTTAGCATGTGCAATACTTTCTGTGCCAATAGAGTCTGACCAGTGTGCTATATAGTTAAAGCTCATTCCCTTTTG
GCTTTTTCTTTGTTTGGTTGATCTTCCCCATTCTGGCCAGAGCAGGGCTGGAGGGAAGGAGCCAGGAGGGAGAGA
GCCTCCCACCTTTCCCTGCTGCGGATGCTGAGTGTGTTGGGCGGGGAGCCTTCAGGAGCCCCGTGCGTCTGCCGC
CACGTTGCAGAAAGAGCCAGCCAAGGAGACCCGGGGGAGGAACCGCAGTGTCCCCTGTACCACACGGAATAGTG
AATGTGGAGTGTGGAGAGGAAGGAGGCAGATTCATTTCTAAGACGCACTCTGGAGCCATGTAGCCTGGAGTCAAC
CCATTTTCCACGGTCTTTTTCTGCAAGTGGGCAGGCCCTCTCGGGGTCTGTGTCCTTGAGACTTGGAGCCCTGC
CTCTGAGCCTGGACGGGAAGTGTGGCTGTGTGTGTGTGCGTTCTGAGCGTGTGGCCAGTGGCTGTGGAGGGG
ACCACCTGCCACCCACGGTCACCACTCCCTTGTGGCAGCTTTCTCTTCAAATAGGAAGAACGCACAGAGGGCAGG
AGCCTCCTGTTTGCAGACGTTGGCGGGCCCCGAGGCTCCAGAGCAGCCTCTGTACCGCTTCTGTGTAGCAAC
ATTAACGATGACAGGGGTAGAAATCTTCCGTGCCGTTTCAAGGATCAGCCATGTGCCTCTGTACTATG
TCCACTTTGCAATATTTACCGACAGCCGTCTTTTGTCTTTCTTTCTTTCTTTTCCATTTTTAACTAGTAACAGC
AGGCCTTTTGCCTTTACAATGGAACACAATACCAAGAAATTAGTCAGGGCGAAAAGAAAAAATAATACTATTA
ATAAGAAACCAACAACAAGAACCTCTCTTTCTAGGGATTTCTAAATATATAAAATGACTGTTTCTTTAGAAATGTT
TAACTTAAGAATTATTTTCAAGTTTGTCTGGGCCACACTGGGGCAGAGGGGGAGGGAGGGATACAGAGATGGATGC

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FIGURE 292

MKSNQERSNECLPPKKREIPATSRSSEEKAPTLPSDNHRVEGTAWLPGNPGGRGHGGGRHGPAGTSVELGLQQGI
GLHKALSTGLDYSPPSAPRSVPVATTLPAAYATPQPGTPVSPVQYAHLPHTFQFIGSSQYSGTYASFIPSQLIPP
TANPVTS AVASAAGATTPSQRSQLEAYSTLLANMGSLSQTPGHKAEQQQQQQQQQQQHQQQQQQQQQQQQQQ
QHLSRAPGLITPGSPPPAQQNQYVHISSSPQNTGRTASPPAIPVHLHPHQTMIPTLTLGPPSQVVMQYADSGSH
FVPREATKKAESSRLQQAIQAKEVLNGEMEKSRRYGAPSSADLGLGKAGGKSVPHPYESRHVVVHPSPSDYSSRD
PSGVRASVMVLPNSNTPAADLEVQQATHREASPSTLNDKSGHLHGKPGHRSYALSPHTVIQTTHSASEPLPVGLP
ATAFYAGTQPPVIGYLSGQQQAITYAGSLPQHLVIPGTQPLLIPVGSTDMEASGAAPAIVTSSPQFAAVPHTFVT
TALPKSENFNPEALVTQAAYPAMVQAQIHLPVVQSVASPAAPPTLPPYFMKGSIIQLANGELKKVEDLKTEDI
QSAEISNDLKIDSSTVERIEDSHSPGVAVIQFAVGEHRAQVSVEVLVEYPFFVFGQGWSSCCPERTSQLFDLPCS
KLSVGDVCI SLTLKNLKNKSVKKGQPVDPASVLLKHSKADGLAGSRHRYAEQENGINQGSAQMLSENGELKFPEK
MGLPAAPFLTKIEPSKPAATRKRWSAPESRKLEKSEDEPPLTLPKPSLIPQEVKICIEGRSNVGK

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FIGURE 293

GGCGAATGGAGCAGGGGCGCGCAGATAATTAAAGATTTACACACAGCTGGAAGAAATCATAGAGAAGCCGGGCGT
GGTGGCTCATGCCTATAATCCCAGCACTTTTGGAGGCTGAGGCGGGCAGATCACTTGAGATCAGGAGTTTCGAGAC
CAGCCTGGTGCTTGGCATCTCCCCAATGGGGTGGCTTTGCTCTGGGCTCCTGTTCCCTGTGAGCTGCCTGGTCTT
GCTGCAGGTGGCAAGCTCTGGGAACATGAAGGTCTTGAGGAGCCACCTGCGTCTCCGACTACATGAGCATCTC
TACTTGCAGTGGAAAGATGAATGGTCCCACCAATTGCAGCACCGAGCTCCGCCTGTTGTACCAGCTGGTTTTTCT
GCTCTCCGAAGCCCACACGTGTATCCCTGAGAACAACGGAGGCGCGGGGTGCGTGTGCCACCTGCTCATGGATGA
CGTGGTCACTGCGGATAACTATACACTGGACCTGTGGGCTGGGCAGCAGCTGCTGTGGAAGGGCTCCTTCAAGCC
CAGCGAGCATGTGAAACCCAGGGCCCCAGGAAACCTGACAGTTACACCAATGTCTCCGACACTCTGCTGCTGAC
CTGGAGCAACCCGTATCCCCCTGACAATTACCTGTATAATCATCTCACCTATGCAGTCAACATTTGGAGTGAAAA
CGACCCGGCAGATTTGAGAACTATAACGTGACCTACCTAGAACCCTCCCTCCGCATCGCAGCCAGCACCTGAA
GTCTGGGATTTCTACAGGGCACGGGTGAGGGCTGGGCTCAGTGCTATAACACCACCTGGAGTGAGTGGAGCCC
CAGCACCAAGTGGCACAACCTCTACAGGGAGCCCTTCGAGCAGCACCTCCTGCTGGGCGTCAGCGTTTCTGCTAT
TGTCATCCTGGCCGTCTGCCGTGTGTGCTATGTGAGCATCACCAAGATTAAGAAAGAATGGTGGGATCAGATTCC
CAACCCAGCCCGCAGCCGCTCTGTTGGCTATAATAATCCAGGATGCTCAGGGGTACAGTGGGAGAAGCGGTCCCCG
AGGCCAGGAACCCAGCCAAGTGGCCACACTGGAAGAATTGTCTTACCAAGCTCTTGCCCTGTTTTCTGGAGCACA
CATGAAAAGGGATGAAGATCCTCACAAGGCTGCCAAAGAGATGCCTTTCCAGGGCTCTGGAAGATCAGCATGGTG
CCCAGTGGAGATCAGCAAGACAGTCTCTGGCCAGAGAGCATCAGCGTGGTGCATGTGTGGAGTTGTTTGAGGC
CCCGGTGGAGTGTGAGGAGGAGGAGGAGGTAGAGGAAGAAAAAGGGAGCTTCTGTGCATCGCCTGAGAGCAGCAG
GGATGACTTCCAGGAGGGAAGGGAGGGCATTGTGGCCCGGCTAACAGAGAGCCTGTTCTGGACCTGCTCGGAGA
GGAGAATGGGGGCTTTTGCCAGCAGGACATGGGGGAGTCATGCCTTCTTCCACCTTCGGGAAGTACGAGTGCTCA
CATGCCCTGGGATGAGTTCCCAAGTGCAGGGCCCAAGGAGGCACCTCCCTGGGGCAAGGAGCAGCCTCTCCACCT
GGAGCCAAGTCTCTGCCAGCCGACCCAGAGTCCAGACAACCTGACTTGCACAGAGACGCCCTCTGTCATCGC
AGGCAACCTGCTTACCGCAGCTTACGCAACTCCCTGAGCCAGTCACCGTGTCCAGAGAGCTGGGTCCAGACCC
ACTGCTGGCCAGACACCTGGAGGAAGTAGAACCCGAGATGCCCTGTGTCCCCAGCTCTCTGAGCCAACCACTGT
GCCCCAACCTGAGCCAGAAACCTGGGAGCAGATCCTCCGCCGAAATGTCTCCAGCATGGGGCAGCTGCAGCCCC
CGTCTCGGCCCCCACCAGTGGCTATCAGGAGTTTGACATGCGGTGGAGCAGGGTGGCAGCCAGGCCAGTGCCTG
GGTGGGCTTGGGTCCCCCAGGAGAGGCTGGTTACAAGGCCTTCTCAAGCCTGCTTGGCAGCAGTGTGTGTCCCC
AGAGAAATGTGGGTTTGGGGCTAGCAGTGGGGAAGAGGGGTATAAGCCTTTCCAAGACCTCATTCTGGCTGCCC
TGGGGACCTGCCCCAGTCCCTGTCCCCTTGTTCACCTTTGGACTGGACAGGGAGCCACCTCGCAGTCCGAGAG
CTCACATCTCCCAAGCAGCTCCCCAGAGCACCTGGGTCTGGAGCCGGGGGAAAAGGTAGAGGACATGCCAAAGCC
CCCCTTCCCCAGGAGCAGGCCACAGACCCCTTGTGGACAGCCTGGGCAGTGGCATTGTCTACTCAGCCCTTAC
CTGCCACCTGTGCGGCCACCTGAAACAGTGTGATGGCCAGGAGGATGGTGGCCAGACCCCTGTGATGGCCAGTCC
TTGCTGTGGCTGCTGCTGTGGAGACAGGTCTCGCCCCCTACAACCCCCCTGAGGGCCCCAGACCCCTCTCCAGG
TGGGGTTCCACTGGAGGCCAGTCTGTGTCCGGCCTCCCTGGCACCTCGGGCATCTCAGAGAAGAGTAAATCCTC
ATCATCCTTCCATCTGCCCCCTGGCAATGCTCAGAGCTCAAGCCAGACCCCCAAAATCGTGAACTTTGTCTCCGT
GGGACCCACATACATGAGGGTCTCTTAGGTGATGTCCTCTTGTGTGCTGAGTCTGCAGATGAGGACTAGGGCTTA
TCCATGCCCTGGGAAATGCCACCTCTGGAAGGCAGCCAGGCTGGCAGATTTCCAAAAGACTTGAAGAACCATGGT
ATGAAGGTGATTGGCCCCACTGACGTTGGCCTAACACTGGGCTGCAGAGACTGGACCCCGCCAGCATTGGGCTG
GGCTCGCCACATCCCATGAGAGTAGAGGGCACTGGGTGCGCGTGCCCCACGGCAGGCCCCCTGCAGGAAAACCTGAG
GCCCTTGGGCACCTCGACTTGTGAACGAGTTGTTGGCTGCTCCCTCCACAGCTTCTGCAGCAGACTGTCCCTGTT
GTAAGTGGCCAGGCATGTTTTGCCCACAGATCATGGCCACGTGGAGGCCACCTGCCTCTGTCTCACTGAAC
TAGAAGCCGAGCCTAGAACTAACACAGCCATCAAGGGAATGACTTGGGCGGCCTTGGGAAATCGATGAGAAATT
GAACTTCAGGGAGGGTGGTCATTGCCTAGAGGTGCTCATTCAATTAACAGAGCTTCCTTAGGTTGATGCTGGAGG
CAGAATCCCGGTGTCAAGGGGTGTTAGTTAAGGGGAGCAACAGAGGACATGAAAAATTGCTATGACTAAAGCA
GGGACAATTTGCTGCCAAACACCCATGCCAGCTGTATGGCTGGGGGCTCCTCGTATGCATGGAACCCCCAGAAT
AAATATGCTCAGCCACCCTGTGGGCCGGGCAATCCAGACAGCAGGCATAAGGCACCAAGTTACCCTGCATGTTGGC
CCAGACCTCAGGTGCTAGGGAAGGCGGGAACCTTGGGTTGAGTAATGCTCGTCTGTGTGTTTTAGTTTCATCACC
TGTTATCTGTGTTTGCTGAGGAGAGTGGAACAGAAGGGGTGGAGTTTTGTATAAATAAAGTTTCTTTGTCTC

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FIGURE 294

MGWLCSGLLFPVSCIVLLQVASSGNMKVLQEPTCVSDYMSISTCEWKMNPTNCSTELRLLYQLVFLLSEHTCI
PENNGGAGCVCHLLMDDVVSADNYTLDLWAGQQLLWKGSKPSEHVKPRAPGNLTVHTNVSDTLLLTWSNPYP
NYLYNHLTYAVNIWSENDPADFRIYNVTYLEPSLRIAASTLKSGISYRVRVRAWAQCYNNTWSEWSPSTKWHNSY
REPFEQHLLLVSVSCIVILAVCLLCYVSITKIKKEWWDQIPNPARSRLVAIIIQDAQGSQWEKRSRGQEPAC
HWKNCLTKLLPCFLEHNMKRDEDPHKAKEMPFQSGKSAWCPVEISKTVLWPESISVVRVVELFEAPVECEEEE
EVEEEKGSFCASPSSRDFQEGREGIVARLTESLFLDLLGEENGFCQQDMGESCLLPSPSGSTSAHMPWDEFPS
AGPKEAPPWGKEQPLHLEPSPPASPTQSPDNLTCTETPLVIAGNPAYRSFSNLSQSPCPRELGPDP LLARHLEE
VEPEMPCVPQLSEPTTVPQPEPETWEQILRRNVLQHGAAPVSAPTSGYQEFVHAVEQGGTQASAVVGLGPPGE
AGYKAFSSLLASSAVSPEKCGFGASSGEEGYKPFQDLIPGCPGDPAPVPLFTFGLDREPPRSPQSSHLPS
EHLGLEPGEKVEDMPKPPLPQEQATDPLVDSLGSIVSALTCHLCGHLKQCHGQEDGGQTPVMASPCCGCCCGD
RSSPPTTFLRAPDPSPGGVPLEASLCPASLAPSGISEKSKSSSFHPAPGNAQSSSQTPKIVNFVSVGPTYMRVS

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FIGURE 295

ATTCGAGTGCTCCGGAGAACAGACCCGCGCCCCGCCGTCCGCGAGCCTCCCGAGAGCCGTCCCTTCGTCCGGCCC
TGGAGCATTGCGTTTGTGCGCGGTGTGCGAGTGCGAGGATGGCGCCGCGGGTGTAGCGGCTCTCTGCGCAGGCCG
AGTGGGCCCAGAGAAGCGAGGAACCCCCAGATCGCCGACACGTCTCGTCTCCTGTCCCAATTCAGGGCTTGGTG
AGGTGACTCGCGGTGCGGGTGACTCGCCGGCAGGACACTGCCTGGAACGCCTGGAGCGCCTCCCACTGCAGACG
TCTGTCCGCCTCCAGCCGCTCTCCTCTGACGGGTCTGCCTCAGTTGGCGGAATGCGCGCCACGGGAGCCAATGC
AGAGAAAGCTGAAAGTCACAATGATTGCCCCGTCAGACTTTTAAATCCAAACATAGCAAAAATGAAAGAAGATAT
TCTCTATCATTTCAATCTCACCCTAGCAGACACAATTTCCAGCCTTGTTTGGAGATGTGAAGTTTGTGTGTGT
TGGTGGAAGCCCCCTCCCGGATGAAAGCCTTCATCAGGTGCGTTGGTGCGAGAGCTGGGCTTGACTGCCCAGGTAG
AGACTATCCCAACATCTGTGCGGGAACCTGACCGCTATGCCATGTATAAAGTAGGACCGGTGCTGTCTGTCACTCA
TGGTATGGGCATTCTTCTATCTCAATCATGTTGCATGAGCTCATAAAGCTGCTGTACTATGCCCGGTGCTCCAA
CGTCACTATCATCCGCATTGGCACTTCTGGTGGGATAGGTCTGGAGCCCGGCACTGTGGTCATAACAGAGCAGGC
AGTGGATACCTGCTTCAAGGCAGAGTTTGTGAGCAGATTGTCTGGGGAAGCGGGTCATCCGGAACCGACCTTAA
CAAGAAGCTGGTGCAGGAGCTGTTGCTGTGTTCTGCGAGAGCTGAGCGAGTTCACCACAGTGGTGGGGAACACCAT
GTGCACCTTGGACTTCTATGAAGGGCAAGGCCGTCTGGATGGGGCTCTCTGCTCCTACACGGAGAAGGACAAGCA
GGCGTATCTGGAGGCAGCCTATGCAGCCGGCGTCCGCAATATCGAGATGGAGTCCTCGGTGTTTGCCGCCATGTG
CAGCGCCTGCGGCCTCCAAGCGGCCGTGGTGTGTGTACCCCTCCTGAACCGCCTGGAAGGGGACCAGATCAGCAG
CCCTCGCAATGTGCTCAGCGAGTACCAGCAGAGGCCGCGAGCGGCTGGTGAGCTACTTCATCAAGAAGAACTGAG
CAAGGCCTGAGCGCTGCCCTGCACCTCCGCGAGACCTGCTGTGATGACTTGCCATTAAAGCATTGTCCAAACCC

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FIGURE 296

MAATGANA EKAESHND CPVRLNPNI AKMKEDILYHFNLTTSRHNF PALFGDVKFVCVGGSPSRMKAFIRCVGAE
LGLDCPGRDYPNICAGTD RYAMYKVG PVL SVSHGMGIPSI SIMLHELKLLYARCSNVTIIRIGTSGGIGLEPG
TVVITEQAVDTCFKA EFEQIVLGKRVIRKTDLNKKLVQELLCSAE LSEFTTVVGNTMCTLDFYEGQGRLDGALC
SYTEKDKQAYLEAAYAAGVRNIEMESSVFAAMCSACGLQA AVCVTLLNRLEGDQISSPRNVLSEYQQRPQRLVS
YFIKKKLSKA

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FIGURE 297

GGCACGAGGGCGCGCAAGGCACCGGTGGCAGCGGCGACGGCAGCTGCGACAGCAACCCCTGCTGGGCCGAACTG
GGCAGAGCGGAGCAGACGTCTGAAGCAGCGCGAGTGAGGCGCGAGGGTAGCGCCCGCGCCCGGGAAGACCCCTCG
GCGCGAACC GG CAGCCCAGCCCCGGGTCCCGTTCCCAAGGCCCGCCTCTAGGGCCTGGGGACTAATCGGATTG
AGAGCGCGCCGGCCCGGGCCGCGAACTCGCCAATTGCGGAGGGCGGTGGCCACCGCCCAATCCGGAGCAGACAGG
TGCGAGGTCCGGAAGGCGGAGGCCAATCGGCGGCGGTTGCGACCTGCTGGGGCAGGTCTCGGCCAATAAGGAGGC
TCGAGTGACATCTTCGCGCACCAATCGGGAGTGAGGGAGCATTTCGTGCCCGCTCGCCCTTCGGGCCAGACCTCTA
TTTACCAGGGGCGTGCGAGCCCGCTTGCCAATCAGAGCGCGGCTGAGCGGCCCGCAGCCAACCCCGAGGAGCGG
CCGGCTGGCGTCCGCCGCGCCAGGAGTTGGGGATGTCCTACAAACCCATCGCCCTGCTCCCAGCAGCACCCCT
GGCTCCAGCACCCCTGGGCCGGGCACCCCGGTCCCTACAGGAAGCGTCCCGTCGCCGTCGGGCTCAGTGCCAGGA
GCCGGCGCTCCTTTCAGACCGCTGTTTAACGACTTTGGACCGCCTTCCATGGGCTACGTGCAGGCGATGAAGCCA
CCCGGCGCCCAGGGCTCCCAGAGCACCTACACGGACCTGCTGTCAGTCATAGAGGAGATGGGCAAAGAGATCCGG
CCTACCTATGCTGGCAGCAAGAGCGCCATGGAGCGCCTGAAGAGAGGTATCATCCATGCCCGGGCCCTAGTCAGA
GAGTGCCTGGCAGAGACAGAGCGGAACGCGCGCACGTAAACAGGAAGCGCCTCGGCCTCAGCGTCTGGACCTATCC
GGCCACTGCAGAGCACCCGCTTCTCCCTGGCCTTCATCCCGAGTTGCACTAACCATCCTGGGCTTCCTGTCTGT
GTCCCTTGGTGGGTCCCCCTCCAGGAACCAAGGAGTGGCCCTCCAGGTGGCAGCACTAAGGACACCCCCCACAAC
AAGAGTTAGCAGCGAGGTCCCCATGAGTCCCACCCATGACCTGCCGACAGTGTTGCCACCGGAACTTTTGTGGC
CCCTACCGCTCAGCCCTTCCCAGCACTTCTCCCACTTTGTCCCGAGCCTCCTTCTCCCCCAGCAGGGGCACAGGC
CTGGCACCTCCCTGCCTTGTGTCTGAGCCATAGTGACTCTTTTATCTGTGTGTCTTTTGCTAAATATGCCCTTT
TTATATTAATAAAAGATGATTTGGAGTTGTGCTCTCAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 298

MSYKPIAPAPSSSTPGSSTPGPGTPVPTGSPSPSGSVPGAGAPFRPLFNDFGPPSMGYVQAMKPPGAQGSQSTYT
DLLSVIEEMGKEIRPTYAGSKSAMERLKRGI IHARALVRECLAETERNART

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FIGURE 299

ATGGCGACTGCGACCCCCGTGCCGCCGCGGATGGGCAGCCGCGCTGGCGGCCCCACCACGCCGCTGAGCCCCACG
CGCCTGTGCGGGCTCCAGGAGAAGGAGGAGCTGCGCGAGCTCAATGACCGGCTGGCGGTGTACATCGACAAGGTG
CGCAGCCTGGAGACGGAGAACAGCGCGCTGCAGCTGCAGGTGACGGAGCGCGAGGAGGTGCGCGGCCGTGAGCTC
ACCGGCCTCAAGGCGCTCTACGAGACCGAGCTGGCCGACGCGGACGCGCGCTCGACGACACGGCCCGCGAGCGC
GCCAAGCTGCAGATCGAGCTGGGCAAGTGCAAGGCGGAACACGACCAGCTGCTCCTCAACTATGCTAAGAAGGAA
TCTGATCTTAATGGCGCCCAGATCAAGCTTCGAGAATATGAAGCAGCACTGAATTCGAAAGATGCAGCTCTTGCT
ACTGCACCTTGGTGACAAAAAAGTTTAGAGGGAGATTTGGAGGATCTGAAGGATCAGATTGCCAGTTGGAAGCC
TCCTTAGCTGCAGCCAAAAACAGTTAGCAGATGAACTTTACTTAAAGTAGATTTGGAGAATCGTTGTCAGAGC
CTTACTGAGGACTTGGAGTTTCGCAAAGCATGTATGAAGAGGAGATTAACGAGACCAGAAGGAAGCATGAAACG
CGCTTGGTAGAGGTGGATTCTGGGCGTCAAATTGAGTATGAGTACAAGCTGGCGCAAGCCCTTCATGAGATGAGA
GAGCAACATGATGCCCAAGTGAGGCTGTATAAGGAGGAGCTGGAGCAGACTTACCATGCCAACTTGAGAATGCC
AGACTGTATCAGAGATGAATACTTCTACTGTCAACAGTGCCAGGGAAGAACTGATGGAAGCCGCATGAGAATT
GAGAGCCTTTTCATCCCAGCTTTCTAATCTACAGAAAGAGTCTAGAGCATGTTTGGAAGGATTCAAGAATTAGAG
GACTTGCTTGCTAAAGAAAAAGACAACCTCTCGTCGCATGCTGACAGACAAAGAGAGAGATGGCGGAAATAAGG
GATCAAATGCAGCAACAGCTGAATGACTATGAACAGCTTCTTGATGTAAAGTTAGCCCTGGACATGGAAATCAGT
GCTTACAGGAAACTCTTAGAAGGCGAAGAAGAGAGGTTGAAGCTGTCTCCAAGCCCTTCTTCCCGTGTGACAGTA
TCCCAGCATCCTCAAGTCGTAGTGTACGTACAAC TAGAGGAAAGCGGAAGAGGGTTGATGTGGAAGAATCAGAG
GCGAGTAGTAGTGTTAGCATCTCTCATTCCGCCTCAGCCACTGGAAATGTTTGCATCGAAGAAATTGATGTTGAT
GGGAAATTTATCCGCTTGAAGAACACTTCTGAACAGGATCAACCAATGGGAGGCTGGGAGATGATCAGAAAAATT
GGAGACACATCAGTCAGTTATAAATATACCTCAAGATATGTGCTGAAGGCAGGCCAGACTGTTACAATTTGGGCT
GCAAACGCTGGTGTACAGCCAGCCCCCACTGACCTCATCTGGAAGAACCAGAACTCGTGGGGCACTGGCGAA
GATGTGAAGGTTATATTGAAAAATTCTCAGGGAGAGGAGGTTGCTCAAAGAAGTACAGTCTTTAAACAACCATA
CCTGAAGAAGAGGAGGAGGAGGAAGAAGCAGCTGGAGTGGTTGTTGAGGAAGAACTTTTCACCAGCAGGGAACC
CCAAGAGCATCCAATAGAAGCTGTGCAATTATG**TAAA**ATTTTCAACTGTCTTCCTCAAATAAAGAAGTATGGTA
ATCTTTACCTGTATACAGTGCAGAGCCTTCTCAGAAGCACAGAATATTTTTATATTTCTTTTATGTGAATTTTA
AGCTGCAAATCTGATGGCCTTAATTTCTTTTTTGACACTGAAAGTTTTGTAAAAGAAATCATGTCCATACACTTT
GTTGCAAGATGTGAATTATTGACACTGAACTTAATAACTGTGTACTGTTCCGAAGGGGTTCTCAAATTTTTTGA
CTTTTTTTGTATGTGTGTTTTTTCTTTTTTTTTAAGTTCTTATGAGGAGGGGAGGGTAAATAAACCCTGTGCGT
CTTGGTGTAATTTGAAGATTGCCCCATCTAGACTAGCAATCTCTTCATTATTCTCTGCTATATATAAAACGGTGC
TGTGAGGGAGGGGAAAAGCATTTTTCAATATATTGAACTTTTGTACTGAATTTTTTTGTAATAAGCAATCAAGGT
TATAATTTTTTTTTAAATAGAAATTTTGTAAGAAGGCAATATTAACCTAATCACCATGTAAGCACTCTGGATGAT
GGATTCCACAAAACCTTGTTTTATGTTTACTTCTTCTTAGATTCTTAATTCATGAGGAGGGTGGGGGAGGGAG
GTGGAGGGAGGGGAAGGGTTTCTCTATTAATAATGCATTGTTGTGTTTTTTAAGATAGTGAACCTTGCTTAAATTT
CTTATGTGACATTAAACAAATAAAAAAGCTCTTTT

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FIGURE 300

MATATPVPPRMGSRAGGPTTPLSPTRL SRLQEKEELRELNDRLAVYIDKVRSL ETENSALQLQVTEREEV RGREL
TGLKALYETELADARRALDDTARERAKLQIELGKCKAEHDQ LLLNYAKKESDLNGAQIKLREYEAALNSKDAALA
TALGDKKSLEGDLEDLKDQIAQLEASLAAAKQLADETLLKVDLENRCQSLTEDLEFRKSMYEEEINETRRKHET
RLVEVDSGRQIEY EYKLAQALHEMREQHDAQVRLYKEELEQTYHAKLENARLSSEMNTSTVNSAREELMESRMRI
ESLSSQLSNLQKESRACLERIQELEDLLAKEKDNSRRLTDKEREMAEIRDQMQQQLNDYEQLLDVKLALDMEIS
AYRKLLLEGEEERLKLSPSPSSRVTVSRASSRSVRTRGKRKRVDVEESEASSSVSISHSASATGNVCIEEIDVD
GKFIRLKNTSEQDQPMGGWEMIRKIGDTSVSYKYTSRYVLKAGQTVTIWAANAGVTASPTD LIWKNQNSWGTGE
DVKVILKNSQGEEVAQRSTVFKTTIPEEEEEEEEAAGVVVEEELFHQQGTPRASNRSCAIM

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FIGURE 301A

ATCAAATGTGGGGTTTGTACATTCCGCTGCCGCCGCGGACAGTTCTTAAAGGGCCAGCCGCCGGCTGCCGCGCA
GACCCAGCTGCGTCCTGCGCCGCCCTCCCGCTCCCTGAGGGCCTGGGCCGAGAGAGACTGATCGCGCGTGGGCCTC
GCGAGGCAGACGCCGTCGGGCGGACAACAAAGAGAGAGGGCCCCGGAAGGAGCCGGGCTGCCCCCGGACCCGGGG
TGGGGAGGGGAGCACATTGTTCCGCGAGGGCGGGAGCTCTTAAAGGATCCAGACAGGCACCCCCCCCCCTCCCCCGC
CCCCTGCCAGTTTGGCCGCTCTAGATCGGGAACAAAGGAGTCAACGTGTGGCCGGGCGGCCAAAGGGTTGTGAG
TCCCCGGCCAGCCCCCTCCACCCCCCTGCCCCCGGATGCGACCATGGGCTCTGGCAGTGACTAGGTGGCCACCCT
CCGCCCCCGTGGGCCAGCGGCGATTCTCTGCGGGACCTGGCAGCACCCCCGGGCCAGCTCTGGGGAAGCCCTGGCC
TCGAGGGCCCCCTGGCCAGCCCGCTGCCCGGGATGAGCGCTTACCCTCCCAGCAGCCGCCGTCCCGACCTCCAC
ACCTCCCCGTAGAGGAGCGCCGAGCCTCGGCTCCTGCCGGCGGGAGCCCCCGAATGCTGCACCCAGCCACCCAGC
AGAGCCCGTTTATGGTTGATCTCCACGAGCAGGTGCACCAGGGACCTGTCCCTCTGTCTACACGGTCACCACAG
TGACGACCCAAGGCTTCCCTTGCCCTACAGGCCAGCACATCCCTGGCTGCAGTGCCAGCAGCTCCAGCATGCT
CCGTGATGTTTCACTGGGCGAGCATTACCCCCCTCTGCTGCCTCCCCGCCCCGCTTATCCAGGCGTGACCATGCAGC
AGCTGCCTGTGCCCTATCAGGCCTACCCCCACCTCATCTCCAGTGACCACTACATCCTGCACCCCCCACCACCGG
CCCCACCCCCCAGCCACCCACATGGCGCCCCCTGGGGCAGTTTGTGTCTCTGCAGACCCAGCACCCCTCGGATGC
CCCTCCAGCGGCTCGACAACGACGTGGACCTGCGTGGGGACAGCCCTCCCTGGGCAGCTTACCTACTCCACCT
CTGCGCCTGGCCAGCCCTTCCCGCTCGGTGCCCTGCACTACCTGCCCCACGATCCGCTGCACCAGGAGCTGT
CCTTTGGTGTGCCATATTCTCACATGATGCCACGGAGACTGAGCACCCAGAGATACCGCTGCAGCAGCCACTGC
CCCCGCGCCCCCACCACCACCCACCCCTACTACCCAGCTTCCCTGCCCTACTTCTCTCGATGCTGCCAA
TGTCACCAACAGCAATGGGGCCCACCATCAGCCTGGACCTGGACGTGGATGATGTGGAGATGGAGAACTATGAGG
CCCTCCTGAACCTGGCCGAGCGGCTGGGAGATGCCAAGCCCCGGGGTCTCACCAAAGCAGACATAGAGCAGCTCC
CGTCGTACCGCTTTAACC CGGACAGCCATCAGTCGGAGCAGACGCTGTGTGTGGTCTGCTTCACTGACTTCGAGG
CGCGGCAGCTGCTCCGAGTCTCCCTGCAACCATGAGTTCCACACCAAGTGTGTTGACAAGTGGTTGAAGGCCA
ACCGGACGTGTCCCATCTGCCGGGCCGACGCCTCCGAGGTGCCAGGGAGGCTGAGTGAAGGCCACGCAGCCGCT
GCCCCGGGAGAACCCTGCCTGAAGCTCTGGAACCTTGTGGGTGGGGCCCAGGGAGGATGGGGAGGGAGTGGCCAG
GCCTGCCCCCTTGCCTCCTGCCTGCATTTCAGAGCTGGTGCCAGGGTCAGCCAGCGAGGAGTCCCTGCAATAAG
CCCCTGCAATTTGCCAAGCTCCAAAGACTCCCTCCCTAGTCTGCCTGCCCCGCCGCCACGGAGCTGCCTGAG
TGTCCTGATCGGGTCTCCCTCCTGTGCACCCTCAGGTCCCTCCTTTTCTGCTGGCACTGAGTGCCAGGGGTCC
GCTCCCTCAGTGGGGCCGGTGGAGATCCTTGGCCCCAGGATGGGCAGACAGAGCACCATCCTGGGTGAGAAGGTC
TCATGCTCTGAAATGGCGTGCCCTCTGCCAGGTGGCACTGCCAGGTGCGTAGACAGACGGTGTACAGAGCCATT
TCCTGAGCCCCAGGGCTGAATCCCCCTCCTTGACCCCGAACAGTGAACCTCAGGCAGCTGGCTCTGTGTTGGCTG
CTGTGAGGGCTGAGTCTGGTTCCCTAGGGGACCCTCATCCCAGGAACAACATTCCAGCCCCACCCTCAGGCTGGA
GGGCGTCCAGCCTAATCCCGAGCTGGGGCACACGTATCCTGAGGGGCTTGGGCCATACGGGGAGAGGGAGCCCT
GTGTTCCCGGTGGTTGTCCCTCCAGGGATGCAGCCAGACCCGTGCCAATCTCCTCTCCCTCTGTTGTTTGA
TGAACGTGAGGAGCAGCAGTTTTTGTTCATTTCATTGCCCCAAAATCACGTGTAGGATTGGGGATGTGGATATT
TAAGACAATTTCTTTTTCTTTTGGTTTAAATAGGGGCGGGTATAGGGACCAACTGGGACCGAGTGCCAGGGGGC
CGAGCACGGTCATGCTGGCCGGCCTGCATGCATGCGTGTGCCGGGCTGGGCTGGGCGGCCGGCGGTCTGGGGCA
GGGTTGGGGGTCTGTGCTCAGCTGATAACTGCCATGCACTGTACTGCACACGTCCCTAGAGCCTACCGGGACCCG
ACGCTTTTTCAGGGCATTCTCCCTCCAGCCAGGGCCCCAACTCCACCTGCCTGGGCGAATCTCCTCCAAGGAAGT
CCCAGGAGGATGGGGACCAGGAAGGCTGTGGACCCCATCTCCAGGGGGCCTTCCAGCCTGATCCCTGTCTCC
AAGTTCTGGAGGAGGCCGCTGTAGGGTCTGGCTGAGCTTCCACCCACTTCCCTGGTCCCAATCCTTTCTTGT
CTATACCCAGCTGGGGTTGCTGCCCTGAACGAACTGCGTGTGGGGCCGGCACATCCTAGCAGGCAGCCCCTGCG
CCTGCTGCCTCAGGGATGCTCCAACCACCCTCGTTCTCCTCGCAGTGCCCTGGCTCCACCTCCCGCCCCAGCC
TGCCGTGGGGCCCGTCAGCCTGGTCCCACCCCATGGAGAACCACAAAGTCTTACTGTATATAACTCCAGGTGACG
TTTCTATATTTATAGCAGTGTGAAAACCCACGTGTTTTACACAGAACCACCCTCTCCAACCCCTCCCTTCCGA
CCCCAACAAAACGTTTTCAAACCCCTTACAGTTCTTGGGGCAGGCGGAAACAGGCTCACAGATTGTGTGTCGGCT
GCAGCAGTGATTCCAACAAGCAGCTATTGGGGGGGAAACACAGCATTTAAAAAGATCATATTAAAAACAAGAT
TTATACAACAATTACTTAGGATGTTTGTGATCCGCCGACCTTGCTATAGATGCCATGTTACCAATGATTTCCTGT
GGTGGGGGCTTGCCATTGTTTACTCTCTTATTTACCAACTTCTGGCCTAGGCATGACAGTGGGCACCTTCCCCCA

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FIGURE 301B

GCCCTGGCTGGGCCCAGCGCCTGTGTTCTGTGTTAGAAAGGTTTTATATATATATAAAATTACATATATATGTAG
AAATATATGTAATTTTGGGGGCCCTGTTTCCTTGCACATTTTACAGTTACCTCATTTCATGTTATGTTGA
GAAAATGCTAATATATAGAGAAAAAATGGTTCTTAAAGCTTAAATGTGTGGTTTTTCCATTCCATGGGATTCA
CATTGGTTTGTAGCATTTAACATAACTAGTATGTTGTATTATATATATGTGTATACTGATTGAAATTTTAAACAG
ATTTGTACTTTTTTAAATGAAAGTTGCTAGTTCTGCTTGACCAAGTAGTGCAATCATTATTTTTTTAATATT
GTTGCTGATTCAGAGGGATATTCACATAAATGTATGATGTATACC

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FIGURE 302

MRPWALAVTRWPPSAPVQRRFSAGPGSTPGQLWGSPGLEGLASPPARDERLPSQQPPSRPPHLPVEERRASAP
AGGSPRMLHPATQQSPFMVDLHEQVHQGPVPLSYTVTTVTQGFPLPTGQHIPGCSAQQLPACSVMFSGQHYPLC
CLPPPLIQACTMQQLPVPYQAYPHLISSDHYILHPPPPAPPPQPTHMAPLGQFVSLQTQHPRMPLQRLDNDVDLR
GDQPSLGSFTYSTSAPGPALSPSVPLHYLPHDPLHQELSFGVPYSHMMPRRLSTQRYRLQQPLPPPPPPPPPPY
YPSFLPYFLSMLPMSPTAMGPTISLDLDVDDVEMENYEALLNLAERLGDAKPRGLTKADIEQLPSYRFNPD SHQS
EQTLCVVCFSDFEARQLLRVLPCNHEFHTKCVDKWLKANRTCPICRADASEVPREAE

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FIGURE 303

CGCACCATAACCGGCGCGGGCACCTGGGGAGAAATGGATGGAGAAGGGACCTGGCTGGAAAGCTTTGCCCCGCTGC
TCTGCTCCGCCCATAAGAGGACCCCTGAAATGTCCCGTGAGTTTGTTCAGTCCCCTGTGTGATGAAATGTGCC
TCTCGCCTTACCCGTGTGAGAATACCTGTGGTGTGGCAGCGAGTATTTTGGTATTTGACCTGTCCAAAGACGACT
TGATACCTCTATAATGTAACAGAAAAGGTCAGAAAATATTAAGCAAGTAGAAGTGTGGAGCATATTAAGCAAGAT
GAACATCTCGGGAAGCAGCTGTGGAAGCCCTAACTCTGCAGATACATCTAGTGACTTTAAGGACCTTTGGACAAA
ACTAAAAGAATGTCATGATAGAGAAGTACAAGGTTTACAAGTAAAAGTAACCAAGCTAAAACAGGAACGAATCTT
AGATGCACAAAGACTAGAGAATTCTTCACCAAAAATCAACAGCTGAGGGAACAGCAGAAAAGTCCTTCATGAAAC
CATTAAAGTTTTAGAAAGATCGGTTAAGAGCAGGCTTATGTGATCGCTGTGCAGTAACTGAAGAACATATGCGGAA
AAAACAGCAAGAGTTTGAAGATATCCGGCAGCAGAACTCTTAACTTATTACAGAACTTATGAATGAAAGGAATAC
TCTACAGGAAGAAAATAAAAAGCTTTCTGAACAACTCCAGCAGAAAAATTGAGAATGATCAACAGCATCAAGCAGC
TGAGCTTGAATGTGAGGAAGACGTTATTCCAGATTACCGGATAACAGCCTTCTCATTTTCTGGCGTTAACCGGCT
ACGAAGAAAGGAGAACCCCCATGTCCGATACATAGAACAAACACATACTAAATTGGAGCACTCTGTGTGTGCAAA
TGAAATGAGAAAAGTTTCCAAGTCTTCAACTCATCCACAACATAATCCTAATGAAAATGAAATTCTAGTAGCTGA
CACTTATGACCAAAGTCAATCTCCAATGGCCAAAGCACATGGAACAAGCAGCTATACCCCTGATAAGTCATCTTT
TAATTTAGCTACAGTTGTTGCTGAAACACTTGGACTTGGTGTTCAAGAAGAATCTGAAACTCAAGGTCCCATGAG
CCCCCTTGGTGATGAGCTCTACCACTGTCTGGAAGGAAATCACAAGAAACAGCCTTTTGAGGAATCTACAAGAAA
TACTGAAGATAGTTTAAAGATTTTCAGATTCTACTTCAAAGACTCCTCCTCAAGAAGAATTACCTACTCGAGTGTC
ATCTCCTGTATTTGGAGCTACCTCTAGTATCAAAAGTGGTTTAGATTGAAATACAAGTTTGTCCCTTCTCTTTT
ACAGCCTGGGAAAAAAAACATCTGAAAACACTCCCTTTTAGCAACACTTGTATATCTAGATTAGAAAAAACTAG
ATCAAAATCTGAAGATAGTGCCCTTTTTCACACATCACAGTCTTGGGTCTGAAGTGAACAAGATCATTATCCAGTC
ATCTAATAAACAGATACTTATAAATAAAAATATAAGTGAATCCCTAGGTGAACAGAATAGGACTGAGTACGGTAA
AGATTCTAACTGATAAACATTTGGAGCCCCTGAAATCATTTGGGAGGCCGAACATCCAAAAGGAAGAAAACCTGA
GGAAGAAAGTGAACATGAAGTAAGCTGCCCCAAGCTTCTTTTGATAAAGAAAATGCTTTCCCTTTTCCAATGGA
TAATCAGTTTTCCATGAATGGAGACTGTGTGATGGATAAACCTCTGGATCTGTCTGATCGATTTTCAGCTATTCA
GCGTCAAGAGAAAAGCCAAGGAAGTGAGACTTCTAAAAACAAATTTAGGCAAGTGACTCTTTATGAGGCTTTGAA
GACCATTCCAAAGGGCTTTTCTCAAGCCGTAAGGCCTCAGATGGCAACTGCACGTTGCCCAAAGATTCCCCAGG
GGAGCCCTGTTTACAGGAATGCATCATCTTCAGCCCTTGAATAAATGCTCTCCAGACAATAAACCATCATTACA
AATAAAAGAAGAAAATGCTGTCTTTAAATTCCTCTACGTCCACGTGAAAGTTTGGAGACTGAGAATGTTTTAGA
TGACATAAAGAGTGCTGGTTCTCATGAGCCAATAAAAAATACAAACCAGGTCAGACCATGGAGGATGTGAACTTGC
ATCAGTTCTTCAGTTAAATCCATGTAGAACTGGTAAAAATAAAGTCTCTACAAAACAACCAAGATGTATCCTTTGA
AAATATCCAGTGAGTATAGATCCGGGAGCAGACCTTTCTCAGTATAAAATGGATGTTACTGTAATAGATACAAA
GGATGGCAGTCAGTCAAAATTAGGAGGAGAGACAGTGACATGGACTGTACATTGGTTAGTGAAACCGTTCTCTT
AAAAATGAAGAAGCAAGAGCAGAAGGGAGAAAAAAGTTCAAAATGAAGAAGAAAAATGAATGATAGCTTGGAAGA
TATGTTTGATCGGACAACACATGAAGAGTATGAATCCTGTTTGGCAGACAGTTTCTCCCAAGCAGCAGATGAAGA
GGAGGAATTGTCTACTGCCACAAAGAACTACACACTCATGGTGATAAACAAGACAAAGTCAAGCAGAAAGCGTT
TGTGGAGCCGTATTTTAAAGGTGATGAAAGAGAGACTAGCTTGCAAAATTTTCTCATATTGAGGTGGTTCCGGAA
AAAAGAGGAGAGAAGAAAACCTGCTTGGGCACACGTGTAAGGAATGTGAAATTTATTATGCAGATATGCCAGCAGA
AGAAAGAGAAAAGAAATTGGCTTCTGCTCAAGACACCGATTCCGCTACATTCCACCCAACACACCAGAGAATTT
TTGGGAAGTTGGTTTTCTTCCACTCAGACTTGATGGAAGAGGTTATATTAAAGGAAGATCTTGATCCTTGTC
TCGTCCAAAAAGACGTCAGCCTTACAACGCAATATTTCTCCAAAAGGCAAGGAGCAGAAGACATAGACGTTGAA
ACAGAAACAGAAGGATGAAGGACAGTTTTTTCTTCTTAGTTATTTATAGTTAAAGTTGGTACTAAACATTGATT
TTTTTGATCTTCTGTAAATGGATTTATAAATCAGTTTTCTATTGAAAATGTTTGTGATATTTTGCTTTTGACCT
TTAAACAATAAGGCGCTTTTCAATTTGCACTCTAACTTAAGAGTTTTTACTTTATGTAGTGATACCTAATACAAT
TTTGAAAAATACAAAAA

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FIGURE 304

MNISGSSCGSPNSADTSSDFKDLWTKLKECHDREVQGLQVKVTKLKQERILDAQRLEEFFTKNQQLREQQKVLHE
TIKVLEDRLRAGLCDRCVTEEHMRKKQQEFENIRQONLKLITELMNERNTLQEENKKLSEQLQQKIENDQQHQA
AELECEEDVIPDSPITAFSFGVNRLRRKENPHVRYIEQHTKLEHSVCANEMRKVSKSSTHPQHNPNEILVA
DTYDQSQSPMAKAHGTSSYTPDKSSFNLATVVAETLGLGVQEESETQGPMSPLGDELYHCLEGNHKKQPFEESTR
NTEDSLRFSdstskTPPQEELPTRVSSPVFGATSSIKSGLDLNTSLSPSLLQPGKKHLKTLPFsntCISRLEKT
RSKSEDSALFTHHSLGSEVNKIIIQSSNKQILINKNISESLGEQNRTEYGKDSNTDKHLEPLKSLGGRTSKRKKT
EESEHEVSCPQASFDKENAFPPMDNQFSMNGDCVMDKPLDLSDRFSAIQRQEKsQGSETSKNKFRQVTLYEAL
KTIPKGFSSSRKASDGNCTLPKDSPEGPCSQECIILQPLNKCSPDNKPSLQIKEENAVFKIPLRPRESLETENVL
DDIKSAGSHEPIKIQTRSDHGGCELASVLQLNPCRGTGKIKSLQNNQDVsfENIQWSIDPGADLSQYKMDVTVIDT
KDGSQSKLGGETVDMCTLVSETVLLKMKKQEQKGEKSSNEERKMNDsLEDmFDRtTHEEYESCLADsFSQAADe
EEELSTATKKLHthGDKQDKVKQAFVEPYFKGDERETSLQNFPHIEVVRKKEERRKLLGHTCkeCEIYYADMPA
EEREKKLASCSRHRFRYIPNTPENFWEVGFPSTQTCMERGYIKEDLDPCPRPKRRQPYNAIFSPKGKEQKT

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FIGURE 305

GGGAAGTGCTGTTGGAGCCGCTGTGGTTGCTGTCCGCGGAGTGGAAGCGCGTGCTTTTGTGTTGTGTCCCTGGCCA
TGGCGCTGCAGCTCTCCCGGGAGCAGGGAATCACCTGCGCGGGAGCGCCGAAATCGTGGCCGAGTTCTTCTCAT
TCGGCATCAACAGCATTTTATATCAGCGTGGCATATATCCATCTGAAACCTTTACTCGAGTGCAGAAATACGGAC
TCACCTTGCTTGTAACACTGATCTTGAGCTCATAAAATACCTAAATAATGTGGTGGAACAACCTGAAAGATTGGT
TATACAAGTGTTCAAGTTCAGAACTGGTTGTAGTTATCTCAAATATTGAAAGTGGTGAGGTCCTGGAAAGATGGC
AGTTTGATATTGAGTGTGACAAGACTGCAAAAGATGACAGTGCACCCAGAGAAAAGTCTCAGAAAGCTATCCAGG
ATGAAATCCGTTCAAGTATCAGACAGATCACAGCTACGGTGACATTTCTGCCACTGTTGGAAGTTTCTTGTTTAT
TTGATCTGCTGATTTATACAGACAAAGATTTGGTTGTACCTGAAAAATGGGAAGAGTCGGGACCACAGTTTATTA
CCAATTCTGAGGAAGTCCGCCTTCGTTCAATTTACTACTACAATCCACAAAGTAAATAGCATGGTGGCCTACAAAA
TTCCTGTCAATGACT**TGA**GGATGACATGAGGAAAATAATGTAATTGTAATTTTGAAATGTGGTTTTCTGAAATCA
GGTCATCTATAGTTGATATGTTTTATTTTATTGGTTAATTTTACATGGAGAAAACCAAATGATACTTACTGAA
CTGTGTGTAATTGTTCCCTTTATTTTTTTGGTACCTATTTGACTTACCATGGAGTTAACATCATGAATTTATTGCA
CATTGTTCAAAAGGAACCAGGAGGTTTTTTTGTCAACATTGTGATGTATATTCCTTTGAAGATAGTAACTGTAGA
TGAAAAAACTTGTGCTATAAAGCTAGATGCTTTTCTAAATCAGATGTTTTGGTCAAGTAGTTTGAAGTCAAGTATAG
GTAGGGAGATATTTAAGTATAAAATACAACAAAGGAAGTCTAAATATTCAGAACTTTGTTAAGGTCCTGAAAGT
AACTCATAATCTATAAACAATGAAATATTGCTGTATAGCTCCTTTTGACCTTCATTTTATGTATAGTTTTCCCTA
TTGAATCAGTTTCCAATTATTTGACTTTAATTTATGTAACCTGAACCTATGAAGCAATGGATATTTGTACTGTTT
AATGTTCTGTGATACAGAACTCTTAAAAATGTTTTTTCATGTGTTTTATAAAATCAAGTTTAAAGTGAAGTGAG
GAAATAAAGTTAAGTTTGTTTTAAAAA

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FIGURE 306

MALQLSREQGITLRGSAEIVAEFFSFGINSILYQGIYPSETFTRVQKYGLTLLVTTDLELIKYLNNVVEQLKDW
LYKCSVQKLVVVISNIESGEVLERWQFDIECDKTAKDDAPREKSQKAIQDEIRSVIRQITATVTFLPLEVSCS
FDLLIYTDKDLVVPEKWEEGPGFITNSEEVRLRSFTTTIHKVNSMVAYKIPVND

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FIGURE 307

AGCCGCGGCCTCAACTAAAAGTGGCCATTGACCTTTCAAGCTTTTCGAGCAGTGATGCAATAGAATAGTATTTCAA
AGAAAAATGCTTATCGAAATTTTGGATCCGGTTTTCCCGTGATTGTTAAGGGTTTCTTTTAAAAAGTAGGTCACA
TTTCAAGTAGGTCAATTTTCGGGGGCGGGTGCGCAGACAAGGAGATGAGTTTCCACTAAGGCCAGGGGGCCTCCA
ACGGGGTTGGAGGTGAGAATCCCAGGTAGGGTAGAGGTGCCGAGATCCTTCCGAATCCCAGCCCTGGGGCGTCAG
CCCTGCAGGGAATGGCAGAGACACTCTCCGGACTGAGGGAACCGAGGCCAGTCACCAAGCCCCCTTCGGGGCGCGC
AGGCGATCAGTGGGTGACCGCGGCTGCGAGGGACTTTGTTCATCCGTCCTCCAGGATCTGGGGAGAAAGAGCCCCA
TCCCTTCTCTCTCTGCCACCATTTTCGGACACCCCGCAGGGACTCGTTTTGGGATTTCGCACTGACTTCAAGGAAGG
ACGCGAACCCTTCTCTGACCCAGCTCGGGCGGCCACCTGTCTTTGCCGCGGTGACCCTTCTCTCT**ATG**ACCCTGC
GGTGCCTTGAGCCCTCCGGGAATGGCGGGGAAGGGACGCGGAGCCAGTGGGGGACCGCGGGGTGGCGGAGGAGC
CATCCCCGAGGCGGCGCGTCTGGCGAAGGCCCTGCGGGAGCTCGGTGAGACAGGATGGTACTGGGGGAAGTATGA
CTGTTAATGAAGCCAAAGAGAAATTTAAAGAGGCACCAGAAGGAACTTTCTTGATTAGAGATAGCTCGCATTCAG
ACTACCTACTAACAATATCTGTTAAACATCAGCTGGACCAACTAATCTTCGAATCGAATACCAAGACGGAAAAAT
TCAGATTGGACTCTATCATATGTGTCAAATCCAAGCTTAAACAATTTGACAGTGTGGTTTCATCTGATCGACTACT
ATGTTTCAGATGTGCAAGGATAAGCGGACAGGTCCAGAAGCCCCCGGAACGGCACTGTTACCTTTATCTGACCA
AACCCTCTACAGTCTAGCACCATCTCTGCAGCATCTCTGTAGGCTCACCATTAAACAAATGTACCGGTGCCATCT
GGGGACTGCCTTTACCAACAAGACTAAAAGATTACTTGGAAGAATATAAATTCCAGGTAT**TAA**ATGTTTTCTTTTT
TTTAAACATGTCTCACATAGAGTATCTCCGAATGCAGCTATGTAAAAGAGAACCAAACTTGAGTGCTCTGGATA
ACTATATGGAATGCTTTCTAAGAACAGCTGAAGCTAATCTAATTTAAATTTAACAGCTTGAAGAGGTAGCTAGGT
GTTTAAAGTTCCTCCAGATACTTTTACCTGAGTGATGCTTCCCTTCCTAAGGCTGACCAAGACCTGTTGATCCTT
TTAGATTAAAAATAAAATGTGCGATGTAAAGGCTGAAGTCGCGTTTTATCAGAATGCCTTGCCTTCTTAGGTTCT
TTTCCATTATGTCAAAGGTCCAGGCTCCAGTAGGAGAGAAAGAACTCCTCATAGGAATACTGAAGAAGTGGGAAG
GAACCAAGCTGACACAGGCCTCACTGCAATTTGATATGCCTGCTGATCAGAGTCTCTTGGGCATTATTTATATTTG
CATTCTGATGTACCTAGGAGTTTTGTAAACAGATGATGTATGTGAGTATTTATCCATTTTATGCAATTAACCA
AATCAACCAAAAAAGTGACCATGAAGTCCTGTATTTGTCTTTTTACTACATGTAGGAACCTCATGTGAATGAG
TACTGTAGTAATCCATTCTATGGGAGCCTTATTTTCAGAAATATTTCAAACCTGGTGCAAATGGAAAAGACTTTCTC
TTTTCTTTAAAGCTAAAGACAAGAATATCATGCTATACAGGTGCAACTCAATCCCCGTTAATAAAAAACCAATGT
AGGTATAGGCATTCTACCCCTTTGAAATAGCTGTGTCCCAACCTGTTGCCATTGATTTTTTGGAAATGGCTTTAGA
AATATCCAAGTTGTCCTTGAATTGTCTAACCATGGACATAAACAGTTGTCTCCCTTCTACTGTGTAGAATACTTT
GACTTAATTTTCTTCCAGATACAGGGGGATACCTGCCTGTTTTTCAAAGTGTTTATTTACTGCTGTTACTATTTG
ATTAGAATGTATTAAATAAAAAAACCTGATTTCT

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FIGURE 308

MTLRCLPSGNGGEGTRSQWGTAGSAEESPQAARLAKALRELGQTGWYWGSM TVNEAKEKLKEAPEGTFLIRDS
SHSDYLLTISVKTSAGPTNLRIEYQDGKFR LDSIICVKSKLKQFDSVVHLIDYYVQMCKDKRTGPEAPRNGTVHL
YLT KPLYTSAPSLQHL CRLTINKCTGAIWGLPLPTRLKDYLEEYKFQV

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FIGURE 309

AGCCGCGGCCTCAACTAAAAGTGGCCATTGACCTTTCAAGCTTTCGAGCAGTGATGCAATAGAATAGTATTTCAA
AGAAAAATGCTTATCGAAATTTTGGATCCGGTTTTCCCGTGATTGTTAAGGGTTTCTTTTAAAAAGTAGGTCACA
TTTCAAGTAGGTCATATTTGCGGGGCGGGTGCGCAGACAAGGAGATGAGTTTCCACTAAGGCCAGGGGGCCTCCA
ACGGGGTTGGAGGTGAGAATCCCAGGTAGGGTAGAGGTGCCGAGATCCTTCCGAATCCCAGCCCTGGGGCGTCAG
CCCTGCAGGGAATGGCAGAGACACTCTCCGACTGAGGGAACCGAGGCCAGTCACCAAGCCCCTTCCGGGCGCGC
AGGCGATCAGTGGGTGACCGCGGCTGCGAGGGACTTTGTCATCCGTCCTCCAGGATCTGGGGAGAAAGAGCCCCA
TCCCTTCTCTCTGCCACCATTTCGGACACCCCGCAGGGACTCGTTTTGGGATTGCGACTGACTTCAAGGAAGG
ACGCGAACCCTTCTCTGACCCAGCTCGGGCGGCCACCTGTCTTTGCCGCGGTGACCCTTCTCTC**ATG**ACCCTGC
GGTGCTTGAGCCCTCCGGGAATGGCGGGGAAGGGACGCGGAGCCAGTGGGGGACCGCGGGGTGCGCGGAGGAGC
CATCCCCGAGGCGGCGCGTCTGGCGAAGGCCCTGCGGGAGCTCGGTGAGACAGGATGGTACTGGGGAAGTATGA
CTGTTAATGAAGCCAAAGAGAAATTTAAAGAGGCACCAGAAGGAACCTTCTTGATTAGAGATAGCTCGCATTAG
ACTACCTACTAACAATATCTGTTAAACATCAGCTGGACCAACTAATCTTCGAATCGAATACCAAGACGGAAAAAT
TCAGATTGGACTCTATCATATGTGTCAAATCCAAGCTTAAACAATTTGACAGTGTGGTTCATCTGATCGACTACT
ATGTTTCAAGTGTGCAAGGATAAGCGGACAGGTCCAGAAGCCCCCGGAACGGCACTGTTACCTTTATCTGACCA
AACCCTCTACACGTCAGCACCATCTCTGCAGCATCTCTGTAGGCTCACCATTAAACAAATGTACCGGTGCCATCT
GGGGACTGCCCTTACCAACAAGACTAAAAGATTACTTGAAGAATATAAATTCAGGTAT**TAA**ATGTTTTCTTTTT
TTTAAACATGTCTCACATAGAGTATCTCCGAATGCAGCTATGTAAAAGAGAACCAAACTTGAGTGCTCTGGATA
ACTATATGGAATGCTTTCTAAGAACAGCTGAAGCTAATCTAATTTAAATTTAACAGCTTGAAGAGGTAGCTAGGT
GTTTAAAGTTCCTCCAGATACTTTTACCTGAGTGATGCTTCCCTTCCTAAGGCTGACCAAGACCTGTTGATCCTT
TTAGATTAAAAATAAAATGTGCGATGTAAAGGCTGAAGTCGCTTTTATCAGAATGCCTTGCCTTCTTAGGTTCT
TTTCCATTATGTCAAAGGTCCAGGCTCCAGTAGGAGAGAAAGAACTCCTCATAGGAATACTGAAGAAGTGGGAAG
GAACCAAGCTGACACAGGCCTCACTGCAATTTGATATGCCTGCTGATCAGAGTCTCTTGGGCATTTTATATTTTG
CATTCTGATGTACCTAGGAGTTTTGTAAACAGATGATGTATGTGAGTATTTATCCATTTTATGCAATTAACCA
AATCAACCAAAAAAAGTGACCATGAAGTCCTGTATTTGTCTTTTACTACATGTAGGAACCTCATGTGAATGAG
TACTGTAGTAATCCATTCTATGGGAGCCTTATTTTCAAAAATATTTCAAAGTGGTGCAAATGGAAAAGACTTTCTC
TTTTCTTTTAAAGCTAAAGACAAGAATATCATGCTATACAGGTGCAACTCAATCCCCGTTAATAAAAAACCAATGT
AGGTATAGGCATTCTACCCTTTGAAATAGCTGTGTCCCAACCTGTTGCCATTGATTTTTTGGAAATGGCTTTAGA
AATATCCAAGTTGTCCTTGAATTGTCTAACCATGGACATAAACAGTTGTCTCCCTTCTACTGTGTAGAATACTTT
GACTTAATTTTCTTCCAGATACAGGGGGATACCTGCCTGTTTTTCAAAGTGTATTTTACTGCTGTTACTATTTG
ATTAGAATGTATTAAATAAAAAAACCTGATTTCT

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FIGURE 310

MTLRCLEPSGNGGEGTRSQWGTAESAEEPSPAARLAKALRELGQTGWYWGSM TVNEAKEKLKEAPEGTFLIRDS
SHSDYLLTISVKTSAGPTNLRIEYQDGKFR LDSIICVKSKLKQFDSVH LIDYYVQMCKDKRTGPEAPRNGTVHL
YLT KPLYTSAPSLQHL CRTINKCTGAIWGLPLPTRLKDYLEEYKFQV

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FIGURE 311

GGGTGAGCAAAGGGGCGGGTCCCTGGCTGCTGTGGCCTCCCCTGACCCCTCCCCCGCTGCTGGGGTCCTCGGC
CAAGCCCCCTTCTCACTGGACTGAGAC**ATG**AGGCTGAGCTGGTTCCGGGTCCTGACAGTACTGTCCATCTGCCTG
AGCGCCGTGGCCACGGCCACGGGGGCCGAGGGCAAAAGGAAGCTGCAGATCGGGGTCAAGAAGCGGGTGGACCAC
TGTCCCATCAAATCGCGCAAAGGGGATGTCCTGCACATGCACTACACGGGGAAGCTGGAAGATGGGACAGAGTTT
GACAGCAGCCTGCCCCAGAACCAGCCCTTTGTCTTCTCCCTTGGCACAGGCCAGGTCATCAAGGGCTGGGACCAG
GGGCTGCTGGGGATGTGTGAGGGGGAAAAGCGCAAGCTGGTGATCCCATCCGAGCTAGGGTATGGAGAGCGGGGA
GCTCCCCCAAAGATTCCAGGCGGTGCAACCCTGGTGTTTCGAGGTGGAGCTGCTCAAAATAGAGCGACGAAGTGA
CTG**TAA**ACCAGACTGGGGAGGGGCAGGGGGAGAGGCCCCCATCAGGGACCAGACTGTTCCAAAAAAAAAACAAAA
ACAAAAACAAACAAAAAACACTTAAAAGCCCAAGGAGTAAGCCTGTGTGTTTGTGGGCCCTGAGAGACTCAGAG
ACCTCAGCTCCAGCATACCCACACCTTCTCCTTTCCC

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FIGURE 312

MRLSWFRVLTVLSICLSAVATATGAEGKRKLQIGVKRVDHCP IKS RKG DVLHMHYTGKLEDGTEFDSSLPQNQP
FVFSLGTGQVIKGWDQGLGMCEGEKRKLVIPSELGYGERGAPPKIPGGATLVFEVELLKIERRTEL

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FIGURE 313

ACTCAGTGTTTCGCGGGAGCCGCACCTACACCAGCCAACCCAGATCCCCGAGGTCCGACAGCGCCCGGCCAGATCC
CCACGCCTGCCAGGAGCAAGCCGAGAGCCAGCCGGCCGGCGCACTCCGACTCCGAGCAGTCTCTGTCTTCGACC
CGAGCCCCGCGCCCTTTCCGGGACCCCTGCCCCGCGGGCAGCGCTGCCAACCTGCCGGCCATGGAGACCCCGTCC
CAGCGGCGCGCCACCCGCAGCGGGGCGCAGGCCAGTCCACTCCGCTGTGCGCCACCCGCATCACCCGGCTGCAG
GAGAAGGAGGACCTGCAGGAGCTCAATGATCGCTTGGCGGTCTACATCGACCGTGTGCGCTCGCTGGAAACGGAG
AACGCAGGGGTGCGCCTTCGCATCACCGAGTCTGAAGAGGTGGTCAGCCGCGAGGTGTCCGGCATCAAGGCCGCC
TACGAGGCCGAGCTCGGGGATGCCGCAAGACCCCTTGA CT CAGTAGCCAAGGAGCGCGCCCGCTGCAGCTGGAG
CTGAGCAAAGTGCGTGAGGAGTTTAAGGAGCTGAAAGCGCGCAATACCAAGAAGGAGGGTGACCTGATAGCTGCT
CAGGCTCGGCTGAAGGACCTGGAGGCTCTGCTGAACTCCAAGGAGGCCGCACTGAGCACTGCTCTCAGTGAGAAG
CGCACGCTGGAGGGCGAGCTGCATGATCTGCGGGGCCAGGTGGCCAAGCTTGAGGCAGCCCTAGGTGAGGCCAAG
AAGCAACTTCAGGATGAGATGCTGCGGCGGGTGGATGCTGAGAACAGGCTGCAGACCATGAAGGAGGAAGTGGAC
TTCCAGAAGAACATCTACAGTGAGGAGCTGCGTGAGACCAAGCGCCGTCATGAGACCCGACTGGTGGAGATTGAC
AATGGGAAGCAGCGTGAGTTTGAGAGCCGGCTGGCGGATGCGCTGCAGGAAGTGCGGGGCCAGCATGAGGACCAG
GTGGAGCAGTATAAGAAGGAGCTGGAGAAGACTTATTCTGCCAAGCTGGACAATGCCAGGCAGTCTGCTGAGAGG
AACAGCAACCTGGTGGGGGCTGCCACGAGGAGCTGCAGCAGTCGCGCATCCGCATCGACAGCCTCTCTGCCCAG
CTCAGCCAGCTCCAGAAGCAGCTGGCAGCCAAGGAGGCGAAGCTTCGAGACCTGGAGGACTCACTGGCCCCGTGAG
CGGGACACCAGCCGGCGGCTGCTGGCGGAAAAGGAGCGGGAGATGGCCGAGATGCGGGCAAGGATGCAGCAGCAG
CTGGACGAGTACCAGGAGCTTCTGGACATCAAGCTGGCCCTGGACATGGAGATCCACGCCTACCGCAAGCTCTTG
GAGGGCGAGGAGGAGAGGCTACGCCTGTCCCCAGCCCTACCTCGCAGCGCAGCCGTGGCCGTGCTTCCTCTCAC
TCATCCCAGACACAGGGTGGGGGCGAGCTACCAAAAAGCGCAAAGTGGAGTCCACTGAGAGCCGCAGCAGCTTC
TCACAGCACGCACGCACTAGCGGGCGCGTGGCCGTGGAGGAGGTGGATGAGGAGGGCAAGTTTGTCGGCTGCGC
AACAAGTCCAATGAGGACCAGTCCATGGGCAATTGGCAGATCAAGCGCCAGAATGGAGATGATCCCTTGCTGACT
TACCGGTTCCCAACAAAGTTCACCCTGAAGGCTGGGCAGGTGGTGACGATCTGGGCTGCAGGAGCTGGGGCCACC
CACAGCCCCCTACCGACCTGGTGTGGAAGGCACAGAACACCTGGGGCTGCGGGAACAGCCTGCGTACGGCTCTC
ATCAACTCCACTGGGGAAGAAGTGGCCATGCGCAAGCTGGTGCCTCAGTGACTGTGGTTGAGGACGACGAGGAT
GAGGATGGAGATGACCTGCTCCATCACCACCATGTGAGTGGTAGCCCGCTTGAGGGCCGAGCCTGCACTGGGGCC
ACCCAGCCAGGCCTGGGGGCGAGCCTCTCCCAGCCTCCCCGTGCCAAAATCTTTTCATTAAAGAATGTTTGGA
CTTT

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FIGURE 314

METPSQRRATRSGAQASSTPLSPTRITRLQEKEDLQELNDRLAVYIDRVRSLETENAGLRLRITESEEVVSREVS
GIKAAYEAE LGDARKTLD SVAKERARLQLELSKVREEFKELKARNTKKEGDLIAAQARLKDLEALLNSKEAALST
ALSEKRTLEGELHDLRGQVAKLEAALGEAKKQLQDEMLRRVDAENRLQTMKEELDFQKNIYSEELRETKRRHETR
LVEIDNGKQREFESRLADALQELRAQHEDQVEQYKKELEKTYSAKLDNARQSAERNSNLVGAAHEELQQSRIRID
SLSAQLSQLQQLAAKEAKLRDLED SLARERDTSRLLAEKEREMAEMRARMQQQLDEYQELLDIKLALDMEIHA
YRKLEGEERLRLSPSPTSQRSRGRASSHSQTQGGGSVTKKRKLESTESRSSFSQHARTSGRVAVEEVDEEGK
FVRLRNKSNEDQSMGNWQIKRQNGDDPLLTYRFPFKFTLKAGQVVTIWAAGAGATHSPPTDLVWKAQNTWGCGNS
LRTALINSTGEEVAMRKLVR SVTVVEDEDEDGDDLLHHHHVSGSRR

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FIGURE 315

CCAAGCCCATGAGGGCCGCGCGCCCGGCCCGGTGCTGACGAGACGGAGCTCCTGGCCCCCGAGGAGGAGCAGA
GGATCAATGCGGTTCAAGAAATCGATTCCAGCGGTTTCATGAACCATCGAGCTCCAGCCAATGGCCGCTACAAGCCA
ACTTGCTATGAACATGCTGCTAACTGTTACACACACGCATTCTCATTGTTCCGGCCATCGTGGGCAGTGCCCTC
CTCCATCGGCTGTCTGATGACTGCTGGGAAAAGATAACAGCATGGATTTATGGAATGGGACTCTGTGCCCTCTTC
ATCGCTTCTACAGTATTTACATTGTATCATGAAAAAGAGCCACTTAAGGACAGCGGAGCATTGTTTTACATG
TGTGATAGAATGGTTATCTATTTCTTCATTGCTGCTTCTTATGCTCCATGGTTAAATCTTCGTGAACCTGGACCC
CTGGCATCTCATATGCGTTGGTTTATCTGGCTCATGGCAGCTGGAGGAACCATTTATGTATTTCTCTACCATGAA
AAATATAAGGTGGTTGAACTCTTTTTCTATCTCACAATGGGATTCTCTCCAGCCTTGGTGGTGACATCAATGAAC
AACACCGATGGACTTCAGGAACCTGCCTGTGGGGGCTTAATTTATTGCTTGGGAGTTGTGTTCTTCAAGAGTGAT
GGCATCATTCCATTGCCCACGCCATCTGGCACCTGTTTGTGGCCACGGCAGCTGCAGTGCATTACTACGCCATT
TGGAAATACCTTTACCGAAGTCCTACGGACTTTATGCGGCATTTATGACCAATCTGTACTAATTCTCCAAACCAG
TATTATTTCAATTATGGCAGTTGGGAGTGGGGTGAGAGCTAAACATTCACAGGGCAAAGAAAAAATAACTGC
ACTGACTTTATATCTTTTGAATATAATTACTGTGAAAGTATAAAGGCTGTGTTCTGGAATTTTCTGCCTCACAGC
AAATAAATAAGGTAGTGAATTAATTATTCATTCCATTCCACTATCATGAAGGACTCTGAATAGACTTGGCCAAC
GATGTTTACAAACCAGACTTTTATATTTTAAATTTTACAGATTTTACTACATGATTTTTCTAAATTACTATGTCAG
GTTGTAAAAGTCAGTGCAATAACAAACCTTCCTTTTAAAGAAGAAATGTTTCTATTACTTTCCCATTCACTAG
GTAAAGAATCATGGACAGAACTTACACTACTTTTACCATGTTTCATCTTGGCATAACATGGTTCTTTTTTAAAT
AGAACTTTAGTTTTTTGTAAATTTTAAAAAATATTTTCATTGATATGCATCTCTGCAGGTCCTCATTTCATGTT
GTAAATTTTGGAGCAAGCAGTCAACATTCCACAAACGAACAAACATTATACCTCTTCTGATAGTTTTATTAAGC
ATGGAGAAATTGCCAATTTTAAAACTGCAGTTTTCCAACTTTCTGCCAACCTCTTACTCTGAATTCAGTGC
TGCTTTGGGACATATACTTGACCTAGCTTGGTTTACCAGTGATGGAAAAGTATTTTGATATCATTAACTTTTTCA
AAAGATCCAACCTTTTTCTCTATGCCTTTGCCACATTCTCTTCAGGGTCTCTTCCACAGCGGATAAATGTTTTT
CTGTATTATGACAGTATTGTTGTGATGGCCATCTGCTGGAACTCCTGAAGAGCATTATGTATTACAGTGAGCAG
TTGTATTGCCGTGTTTGGTGCCCAATGGTTAAGTCATTGTCACTTAGCTTTATATTGTCAGTTTGATATTTATTT
AAATTGTGGAAGTAGATGCATAAATTCACATTTCTGCCTTTCCCTTGCATCTTCTCATATATTGTGTTTTTTTT
TTTTTCCTAGAAAAATATTTAAAGCATGTTTGTGACAGGTAGAACTCATGTATCTGTAGTCCATGAGTTATATC
CTGGCTCAGTGGAGTGATATTTATGTATTATTTTACTTTTCTCTCAGTGTCTTATATTAAGATTAACATGTTGT
TAATAGTTGCTTTGTTGATTAATCTCTCTTGTGGTGTTTTAAATAAATGAAATAGGCTTGCCCTTTAGATCGGGTG
CTGATATTGCCTGTTTCCCTAGTAATGGGCTGATCAAAATGATCAGTGGAAATCTTGGTTTGATGATAACCTTATTA
ATTGAAATTTTTTACTGATGTGGCTTTAAAGAGGTTTATTTTGTATATGTTTAGAACTCTCTGATTTTGATGAA
TTATATGGGAGTGAGAAACAGAAGAAGTGGTATTTGCTGGCGAGTTAAATAGGCAAGGTACCCAGTGATAACACC
AACCAAACCACTCCTATCTGCATGATTCTGAACATCTGGATGCCTGTTGTTTTACTGTGTATATTTTATTTTTAA
TATATTAACCTTTGTGGATTCAATTAAGGTCTACTCAAAGTAACACTGTCCAAACCACTAATATGTATGTAAAAA
TTGTGCTGTATACTACAATAAAGTTGTTACTTGGATTGTTCCAAAAA

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FIGURE 316

MRFKNRFQRFMNHRA PANGRYKPTCYEHAANCYTHAFLIVPAIVGSALLHRLSDDCWEKITAWIYGMGLCALFIA
STVFHIVSWKKSHLRTAEHCFHMC DRMVIYFFIAASYAPWLNLR ELGPLASHMRWFIWLMAAGGTIYVFLYHEKY
KVVELFFYLTMGFSPALVVTSMNNTDGLQELACGGLIYCLGVVFFKSDGIIPFAHAIWHLFVATAAAVHYyaiwk
YLYRSPTDFMRHL

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FIGURE 317A

GGGGGAGGGAAACGGAGCAGTAACAAGTATCCCAGAGGGTGCTGCTGAGGCGACG**ATG**CCGAGGGGCCGAGGA
AGCCCGAGGCCACCCTCCCGGGCAGGACGATGGCGGGGGGACCACGAGCCCGTCCCTTCCCTGAGAGGCCCTCC
TACCACCGCCGTCCCATGCCCCGCGACGACCCCCAGGCCGAACCCAGGCCCGGGCCGGCCACAGCCCCGGG
CCTCGCGGCTGCCGCCGAGCCGACAAATTGGAGCCGCCGCGCGAGCTCAGGAAGCGCGGGGAGGCGGCCTCCGG
CTCCGGTGACAGCTGCAGGAGCAGGCGGGCTGCGAGGCGCCCGAAGCCGCGGCGCCACGAGAGAGACCAGCTCG
GCTGAGCGCCCGCAGTACTCCCGGCAAGTGCACGAGTGCGTGTGGCAGTCTTACTGCGGCTACCTCACCTGGCA
CAGCGGCCTGGCCGCCTTCCCAGCCTACTGCAGCCCCAGCCCTCCCCGCAAAGCTTCCCTTCGGGCGGCGCTGC
AGTCCCCCAGGCCGCGGCGCCGCCGCCCGCAGCTGGGCTATTACAACCCCTTCTACTTCTGAGCCCCGGGGC
CGCGGGGCTGACCCGCGGACAGCTGCCGGCATCAGCACCCCTGCTCCAGTCGCGGGCCTGGGACCCCGGGCTCC
TCACGTGCAGGCGTCCGTCCGGGCCACTCCAGTGACGAGGGTAGGATCCGCAGCCCTTCGCGAAGCCCGAGCGA
GACCGGGCGACAGGCAGGCAGAGAATATGTTATTCCATCCTTGGCCACAGATTTATGGCAGAGATGGTGGATTT
CTTTATTCTCTTTTATAAAAGCAACCATTGTCTTAAGCATTATGCACCTCAGTGGGATAAAGGATATCTCTAA
GTTTGCTATGCATTATATAATAGAAGAAATAGATGAAGACACATCAATGGAAGACTTGACAGAAAATGATGGTTGT
GGCATTATATACAGATTATTAGTTTGTCTTATGAGATAATTTGCATTTGGGGAGCAGGTGGAGCTACCCCAAG
GAAGTTCCCTGCTGGGGCTTCGAGTTGTGACATGTGATACATCAGTGCTTATTGCACCAAGTCGGGTTTTAGTGAT
TCCTTCCCTCAAATGTTAGCATTACAACGTCCACTATCCGAGCTTTGATCAAGAATTTTTCAATTGCTTCTTTTT
CCCTGCTTTCATCACACTGCTGTTTTTTCAGCATAATCGAACAGCTTATGACATTGTAGCAGGAACCAATTGTGGT
AAAAAGAAATGGGGTCAGAT**TGAT**GCCCCCAAACCCCTGATTTCCACACACTAAGACTAAATTATGTATCAAGGC
CATCAGTATCCCTGGGTACACTAATTGATGATTTAGAAATTAAGCAGTCACTCCAGTGTGATGCAGGTGACTA
CTCTGAAAGTATTGATTATACTTGAATGCCAAAGAACTTGTCAGAAGAAAACCTGTTAAATTCAAGTATTAA
ATTTTTAGATCAAAAAGGCAAATGATTTTTATAACAATGGACAATATATACTTTCTTAAGATCTAAGGTACTTTC
TTAAGATCTAAGAATTTGCTGAAAGCATTTTTCAGCTTTGAAATCTCCAAATGAACTTTAAAATTTATTTTGGTT
TATCCCAAAATAATGGAAATGTCCAGTTGTGTTTTGTAAACACCTATGTAACCTCATCTTTTAGTTTACACTTCC
TGGGGAAATTTGCTTTGGTGTTTAGAGGAGGGAATGAGAACACAAATTTGGATAATCCACTGTCTCCCATCCCAGG
AGGTGGTGAGTTGGCTACAAGAGAAAGGGACAAGTGAGGCGAGCCTAGCAGTTCCCTTACCTGAAGTTTTCAAAT
CCATACTGCAGTTCCCTCTCGTAATGATGTAACCTTTACAACATTCTTAATGCTTGAACATGTATTTAGGGGCAA
GTTTTCTCATGATGATGAAAAAGTATCAAGTCATATTGCTATGTTAATTGGTTTTTTTTTTTAAAAGGTAAGTTAG
TGATTACTGTTAATGGTGGGGAGTAAGTTTTCACTGTAAATGAACTTATAATTTATGTGCAAGTGTTTTCAGT
GCCCTGAATCAAACCTATAAATGTGGGGAGAAATCACCTCCATCAAACAGTTGCATATTTACTGTAAAAGTATTCC
CAGTATGTGTGCAGCATGAAGAAAGTATTAGTGCTTCTCAGTGTTCTCAGTGTAATTTCTATTTATATACAGCAT
ATTCACATACTACTTTCCTTATATTTTATATAGTTCTATGACTGTTGAAACATCAAGGAGTTAAAAAATCTTAA
TATTTTCATGATTAACCTCTAAGTACTATTAATAGCTTGCAGAAATATTAGCAATTTTCCCATTATGGACTATCTCTC
TAAAGCAAGAGAGACTAGCATTCCCAGACATCATTCTAGGGTCTTTAAGCTCATTTTGGGTCTGCTAAAGTTTG
GGGAAATGTTACGCAAAGTGATACTGTGTATGTTGCCATTTTGCTTTATTCTTCTGTTGAAGCAAAATTTGTTG
GTTTTATTATGTGTGTGTGCTTTTCCCTAGATGTCCAGTTAGCTGTGCTGAGATATACCTGTACTATTTATGGTT
TAAGTTTTGATTCTTAGGTATTTTCTCCAGCTCTGACATTGTTTTCCAAAGACACACTAACTGCATTGCACAGT
TCAAAATTTGATTACTTAAGGGATCAATCTAGGTGGTGTCTTGGTCTTAAATTTAACAGCAAACACAGCACATA
TCTATTATCACTATATTAATTTTCAAAGGTTTTCTGTGACGTTTAAACTGTGACAACAGATATTCACATTTGA
TTATAGAACTTAATGICTATTAATAATTTTAGTACAAAATTTCAATAACCGTGTTTTTCAAATAAGTTTATGT
CAAATCCAGCTTCCCAGAAACACTAATAATTAAGTACATCAATGTACTAAATAAATCATTAGTTGCACCCATGG
GGAAGATTGTGTTACTGCCCTTCACAGTGAAAAAAGAAAAATCTTTCATTTTTTAAATTAGGAGATGTTACGTA
ACTTGGCACTTTAGTAGTGATACACTAGCATTAGTTTATACACCACTTTTGCCGCTGGGGATTCAAGTTGAAAT
GTCCCTCAATCATATAGGTCTGGAATACATCTTTCATTACATAATTTCTGCTCAGATAATTGAATAGTTTGCCATC
GAGATTATTTTCATTTATACTATAAAACAAAAGCAAACCTAGTCCAGTTTAAATTTTTGTACTTAGAATATTGCAC
ATTTTCTATATATGAGTTATTCAGATTAGTATCTATGTAGGTTTCAGTCAGATCCAACCATGGATTTCGAGGTATTA
TACTGTATAACCTACAAAATACATAGAAGTATTATTTGCCCTTCATAATAGAACCAAGAGTCTGTTTCAATTTA
TGAATTCAGTATTTGCACCGAGATTTTGATTCCCAAAGTTTGGAATAAATGACAAAACAACGAGGGAAGAAGGA
ACCAGACCTTAGTGCCACATATTTTTCTCTTGGGGTTGTAAGGTAGTCTCCTGCTTTCAGAACACTTTATTATA

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FIGURE 317B

TTTCACTTATAGACCTGATTTTCTGTGTCAAAGTATAATTCTCATGCTGAAGCTGTAGCCTAAAAAGCCAAAAGA
AAGTTGTCTTCATTGTACAAACATATTCATCACTTTAACAATAAGGGAACAAAATTTAGTATTCAAGCTGAGTGA
GAATACTGGTTCAATGGACATGTCCCTAAGATAAACAGAATTGGCAGTTAATTTAGGCGTCTAGAAAATCTCAG
TTCCCACCAGTAAAATTATCCTGAGTAGCTAATGCACCTTGAGAAAAATCTGGCATACTGAATAAGTAACATTAA
CTTGGGAGCCAAGAGCTGGGTAAAGCCTTACCTTTAGACTACTCTGTGACTACAGAAATAAAGCCAGCACTTTTGG
AACTAATAAGCCTTCACTTGTCACTATCATAAAGAGTATTGCCCACTGAACCTTTGCTCCCACTGGTTTAATAGT
TACTTATTTCTGCCTAAGCACTCACCTTCCGATTTTACCCAAGTATATATATAGGATAGAAAAAATGCATTATA
TTTGAGAGCTCACTTCGCCCAGATTACAAAATGAGTGTTTTTAGATTCAAGTGACGGTAAAAGGATTTGTTCCCT
TCAGTGACTTGAGTGTTTTAGTTATGCATAAGTATTTCTAGCAAAGGAAGGGTAGAAAGGAATTGAAAATTAATT
TACACTAGTTGCTACTTGGAATAAAGGGCTTTTTGAGGGGGGTATGGATATTAAATGTTTTCGTTATATACTTA
TCCCTATTAAACAGGCAGTTGTTTCTTTGAATATGCCTAAATAACAGTATTCTTAAAATCTGACAGACAAGTAA
CATGTCAATTACTTGATATTCCTTGTCTCCAGTACCACAGGCCACTCTTGACATCCCATGTTTGCCTGGATAAAG
TTCCCTCATTTCAAACAGTATACATACTTCTTTGCAGTTCATTATAGTAAGGCTTAACCTGTAAACAGTATCTGAT
GGCCACCTATAAAATAAAATTCAGCATTCTATTTTTAATAATTTGTATGCCACCAATTTGTATTATTTGTCTCAA
TAAATACTTAGTCATCGATGCAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 318

MAEGPEEARGHPPGQDDGGGDHEPVPSLRGPPTTAVPCPRDDPQAEQAPGRPTAPGLAAAAADKLEPPRELK
RGEAASGSGAELQEQAGCEAPEAAAPRERPARLSAREYSRQVHEWLWQSYCGYLTWHSGLAAFPAYCSPQSPQS
FPSGGAAVPQAAAPPPPQLGYYNPFYFLSPGAAGDPRTAAGISTPAPVAGLGPRAPHVQASVRATPVTRVGSAA
PSRSPSETGRQAGREYVIPSLAHRFMAEMVDFILFFIKATIVLSIMHLSGIKDISKFAMHYIEEIDEDTSMED
LQKMMVVALIYRLLVCFYEIICIWGAGGATPGKFLGLRVVTCDTSVLIAPSRVLVIPSSNVSITTSTIRALIKN
FSIASFFPAFITLLFFQHNRTAYDIVAGTIVVKNRNGVR

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FIGURE 319A

GGTAATGCTTAACTTCCTGCCTCTTTTGCCTCTACAGGAAAGAAGAAACAAGAAAGTGAAGTCCACTAG
GGATATTGTTCTTTTTCTGAACTTGGAAGTACTCCCTCTGGTGGTGGATTTTTTTCAGGGTATTTCTTTTCTCTGA
AATCTCCACCCGTCCTCTTTTGGGCAGTACCGAACTACAGGCAGCTAAGAAAGTACATACTTCTAAGGGAGACCT
ACCTAGGGAGCCTCTTGTGGCCACAACTTGCCCTGGCAGGGGACAGTTGCAGAAGTTAGCCTCTGAAAGGAATTT
GTTTATTTTCATGCAAGTCTAGCCATGATAGGTGTTTAGAGAAAAGTTCTTCGTATCTTCTCAGCCTGAACACAG
TGCCATGTTGGTCTCTACTGCAGCTTCTCCTTCACTGATTAAAGAAACCACCACTGGTTACTATAAAGACATAGT
AGAAAAATATTTGCGGTAGAGAGAAAAGTGAATTCACCATTATGTCTGAGAGGTCCCATATTTTCAGATCAATC
GCCTCTCTCCAGTAAAGGAAAGCACTAGAAGAGTCTGAGAGCTCACAATAATTTCTCCGCCACTTGCCAGGC
AATCAGAGATTATGTCAATTCTCTGTTGGTCCAGGGTGGGGTAGGTAGTTTGCCTGGAAGTCTAAGTCTATGCC
CCCCTGGATGTAGAAAACATACAGAAGAGAATTGATCAGTCTAAGTTTCAAGAACTGAATTCCTGTCTCTCTCC
AAGAAAAGTCCCTAGACTGAGTGAGAAGTCACTGGAGGAAAGGGATTAGGTTTCTTTTGTGGCATTTCAGAACAT
ACCTGGATCCGAAGTATGTCTTTCTTTTGGCAAAAGTGTGTCTCTCATTCACTCACTACCTTAGGTCTAGAAGT
GGCTAAGCAATCAGCATGATAAAATAGATGCCTCAGAAGTATCTTTTCCCTTCCATGAATCTATTTTAAAAGT
AATTGAAGAAGTGGCAGCAAGTTGACAGGCAGCTGCCTTCACTGGCATGCAATATCCAGTTTCTTCCAGGGA
GGCAACACAGATATTATCAGTTCCAAAAGTAGATGATGAAATCCTAGGGTTTATTTCTGAAGCCACTCCACTAGG
AGGTATTCAAGCAGCCTCCACTGAGTCTTGCAATCAGCAGTTGGACTTAGCACTCTGTAGAGCATATGAAGCTGC
AGCATCAGCATTGCAGATTGCAACTCACACTGCCTTTGTAGCTAAGGCTATGCAGGCAGACATTAGTGAAGCTGC
ACAGATTCTTAGCTCAGATCCTAGTCGTACCCACCAAGCGTTGGGATTCTGAGCAAAACATATGATGCAGCCTC
ATATATTTGTGAAGCTGCATTTGATGAAGTGAAGATGGCTGCCCATACCATGGGAAATGCCACTGTAGGTCTGTCG
ATACCTCTGGCTGAAGGATTGCAAAATTAATTTAGCTTCTAAGAATAAGCTGGCTTCCACTCCCTTTAAAGGTGG
AACATTATTTGGAGGAGAAGTATGCAAAGTAATTAAGGCGTGGAATAAACACTAGTAAAATTAAGGACAAAA
AGACATCTATCTTATCTTTTCAAGTACTTTATGCCAACATTTTCTTTTCTGTTAAGGTTGTTTTAGTTTCCAGATA
GGGCTAATTACAAAATGTTAAGCTTCTACCCATCAAATTACAGTATAAAAGTAATTGCCTGTGTAGAACTACTTG
TCTTTTCTAAAGATTTGCGTAGATAGGAAGCCTGGTACAAACAATTTAACGCTTTCTAGATCACATATTAGTCTC
TAAGTTGTTTTCTGTTTCTGCTTTACTTATGTTTTTACAATTCTCCAAAATAAGAAAATTCTAATTAGGATAT
AAGGAGTATTTACTGTTCAATAGAATAATATGCATCCTCCTTTATACCTAGGACAGAATTAACATTTGTTACAC
ATTACAGAACAGTGATGTTGTTCTTTTGTACTTTTATCTCAGTATCTTTTACGTTCCATAACTTGTCCATATT
TTTGCTCATATTTTCTTACTTTTCTTTGTTATTTATTCATGTCTGCAACATCAATCATAGTAGTCTAGATCAATG
CAACTCAAAGCACCAGTCTACAACTGTTACTTATCCACAGGCAAGATAAGCATGCACAAGAATTTAAATCTAGA
GATACTTTTTTAGGTCAATGACAGGATTTGATTTTTTAGCAAAATTTTATTAATAGCTAAAGCAATGTATTGATT
ACACTCTGATGCAAGTAATTTATCTCTTCACTGCTGGTAGCAACCAATTCATGGACCAGTACCATGGACCACAC
TTTGAGAAACACTTCTTTGGATAATAATAGATATCCTGGGATAGTGCATGTTTACCATCTATTTTGTGAGATAAT
GGGGCTTTTAAAAAATAATACTTTGCTTTTATGATATATTGTATTTTGTGGAAGTTAAGTTTAGCAATATAGA
CTCTAAAGCAAATTAATTTTAAAGCCATAAGAAATTAATACTATATCCAGTATCTGTATGTCTGTATAAAG
CAGTGTATTATCATGTTTTCTTTCTGTGATTGTAAGTTAAGAGTCTTAACTGCAGAGGTATTGTGGAAGTAGT
AGCCTTAAGCATAATAAAATATGGTCTCTTGGGTACTCCCTCTGGCCATTACCACATTCTTAGATTATATGTGTC
CATCTTTGCAGCTTTCTGAGAGTAATTTTATTTGTTGCTTCTGAAATGTACATGTATACATGTACCTACTGAGT
GCTATGTGATTTTTTAAATGTATTACTGTAGAATGCTTCTGCAAATCAATAAAGTTGTTAAATTTGAACAGTG
TTGTGTGGTCTCCAGAAACATGTTGTTCTGTGTGCTTTATCTTGGAGTTGCAACAAGTTAAATATTTGTATATG
AACACCCCTTTTCCATTTTATCATTTGAAACTCACTTTGACATTTTCACTGGTATAATTGAAAATATTCTGATTATG
GTATGGTTTTTCTTCTGTTTGGAGACCATGTTTTTATTGACTGTTGGAATCTAAATTTATAAGAGGAATTAATCT
GTAACCAGATACCTTATTGTTTTAACCGATTTCTATTCCACTACTAATGGTTTTTTTTTACTTTGTGCTTTCTAGT
TCTTAGATTCTGAGTTAACAAGCATAAAATAGATTTTATATTGCTGGGGGTTGTACCAAACATAGATACATTGA
CAGATCCATTGATAGAAGTGTGGGAGATGGACTTGAAATCTTAGTCCTAAATAAAGACTGAACTGTTTAAACTA
ACTTGATAAAAATCACTGTTGTTTTTGGGAACCTGCAAGTATTAATAGATTCTGTACTAACTAGTATTAACAC
TGGAAAGTTAGCAAGACACATATAGATGTCTTGACCACTTTTTCACACAAGTTCAGAGTTCATGTAAAACCTTTAG
AATTGACTTCCTTTCTGTCTCTTCAGTAAGAAAGTAATCTAACTTAAATTTTTTGGTAGTAGAAGTTTTAGAAATA
ACAACTGACTAATTTTGCTATACCATGATAAATGTCTACAAAAGGGATTTTTTTTTTTTTTGAATGAAGTTTCG

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FIGURE 319B

CTCTTGTCCTCCCAAAGCTGGAGTGCAATGGTGTGATCTCAGCTCGCTGCAACCTCCGCCTCCCAGGTTCAAGCAAT
TCTCCTGCCTTAGCCTCCTGAGTAGCTGGGATTACAGGTGTCTGCCACCAACCCTGGCTAATGTTTGTATTTTAA
GTAGAGACGGGGTTTACCATTGTTGGCCAGGATGGTCTTAAGCTGACCTCAGGTGATCCGCCCACCTCGGCCTTC
CAAAGTGCTGGGATTACAAGCGTGAGCCACCATGCCCTGCCAGGGATGTTAACTAAAATCAGTCTTTTCAAAC
TAGATCTTCAAATGATGATGAATTTAAGACTAGGAGACTGGAATATTGAAGCCTATTAAAAAATACATATCCTTG
CGTTGTTAGGTTAATAACTATCATGGTGACAAGTGTATAAGTATTGGCTTCTTTTCAAAGAAATGTTATTTTAT
TATAAGGACTGGGACGAGAAGTGACCTGTGATTGGTCGTATTTTCTGTGAACAAGATTCTTTCTTTACCTGAGT
TGTACCTAGGTTTTTTATAACTACATCAAAAAAGCTTTTATATTGTACTTATTAATGTTATGGCAGTTACTTATA
GAAGCTTGGTACTATATGGATTTTTTTCATTTTTAACTTTCCCTTCTATGTTCCAAATTTTAAATTTAGTAAGTC
AACCTTTGCTGTACAGTAGTAGTATACTGTATGGACAAAACAATGGTAACAATTGTGTTATTTTAAATGGCCTTT
TTCCACATCTAAATTGTTCTTACTGAAAAGCTTTTCGTGGGAGCATTTTGAACCTCACTTCATGTTCAAAGCTATGA
GTCCAGATAAAAGGAAAGGAGAATAGGTAGGAAGAAGTGGTTGTCAGATGAAAGGGTAAGGGAGATAAGCAAAAA
TGGGATAAAATAATGAAACAGTTTTCAAGACAAATTGCAGTTAAACAATTTTGGACTAGTGAGGTATTACCAGTAG
ACTTGTTTTTACCTTTTAAATGTGCCTAAAACCAGGGTTCCCGATTAAATATTAGGATAACATCATATTTATTGA
GTGTTTTAGAGAGTAATGGTTTCTCCAATGTTATTTCCAGACTCTAAAATAGAGCTCAAGCTTGAGAAGAGAGAA
CCACTAAAGGGCAGAGCAAAGACTCCAGTAACACTCAAGCAAAGAAGAGTTGAGCACAATCAGGTATCTTTAGTT
TTATTACCACCGTGTACAGGTATAAATAACCTCCTGACAACACTAATCCATGTTTTAGCCTTTAATGGTTGACAC
CCAGATTCCAGCAGCTCAATAAACTTAATTCTGTTGTTAAATGATACTAAAAATCTAACTTTGTGGGTTTTGT
CAGTAGTGTAGCCTGTGATTACAGCAAAAGCAAATTTTTAATGTCTCATTTGTGTTTGAGTCTGTGCTAGATGTA
GTTCAAAGCCAGTTATATGGTGTGTTTGAAGAAATATTTTAAAGGTGGAATATCTAGACACTTTTGATACAAT
TTCTTTAAAGGCAATGGAAGGGTTTTATATTTGTGTCTTTGTCTCTAGATTTCTGACTTTGATTTTATGTTTGC
CTGTCTTGTCTTCTGCGATTCTTTCCTAAACTCAGAAGCTAGTCTGGTCCTAAGACTACAGTTTTCTTTCCTTAT
TTCAGATGAAAATTTACCTTTTCTATTGTGGGAGAGGCGTTTCAGTTTTTCAAAGGGAAATGTAGGAACTAAG
GAGAAAATAAGCATAGGTATAAATGAACAGAGAACAATTTATTGACTAACCTAGTATTGTTTACAGAGAACAAT
TATTGACTAACCTAGTATTGTTTACAGAGAACAATTTATTGACTAACCTAGTATTGTTTACAGAGAACAATTTAT
TGACTAATGCAGCATTGATTTGGCTGATGCTTTATAAGACAGCTATTCCCTAGAGTCATTTTCTTACCCCTGCTA
TGTCTAGCTGGATGATTTGTCTAGTTGGTTATCTTTTCCATCTCCTATTGTCACCTTTGTGTGTTTGTGTTGAC
GGAGTTTTGTCTTGTACCCGGGCTGGAGTGAGTGCGTGATCCCATCTCATTGCAACCTCCACCCTGCTGGG
CTCAAGCGATTCTCCTGCCTCAGCTCCCAAGTAGCTGGGATTACAGGCACATGCCACCACGCTCAGCTAATTTT
TGTATTTTTAGTAGAGACGGGGTTTACCCTGTTGGCCAGGCTGGTCTCAAACCTCCTGACCTCAGGTGATCCACC
TGCATTGGCCTCCGAAAGTGCTGGGATTACAGGTGTGAGCCACCGCGCCCAGCCTGTTTGTGTTTTTAAATCAA
ATCCTTAGAGGAATTATTCTTGATTCTTAAAGGCAAGTCAGTCTCTCTCTTATTGATGTAGTTGATAAGTTGA
ATTTCAGAACGATTTGTTAGAAATGAGCTTTGTGACAAGAACATACAGAGCATTGAATGAATGAAGACTTTGTTA
ACATAGAACCAAATACTGGAATACATGTTTTATTGCCCTTTTATGTAGTAGTCCTAACAAATAGCTTCAGGAGCA
TGCTGAAGAATAAGGAAATAGGCCGGGCGCAGTGGCTCACGCCTGTAATCCAGCACTTTGGGAGGCCGAGGCGG
GCGGATCACCTGAGGTCCGGAGTTTCGAGACGAGCCTGACCAACATGGAGAAACCCTGTCTCTACTAAAAATACAA
AATTAGCCAGGCATGGTGGTGCATGCCTGTAATCCTAGCTACTCCGGAGGCTGAGGCAGGAGAATCGCTTGAACC
TTGGAGGCGGAGGTTGCTGTGAGCCGAGATCGCGCCATTGCACTCTAGCCTGGGCAACAAGAGCGAAACTCTGTC
TCAAAAATAAAATAAAATAAAATAAAATAAAAGATGGTCTAAGGGATAATTGAGTTGGAGGAATCTAACTGA
GGAGCAGAATAAAATAGTCAAAGGAGTGTAGGTTTAGATGACAGGCAGAAATTAGACAGTGGCTTTATTGCAGAAAA
TTTAAACATGTAGAAGAGTGGAGGGAAGAGTTTAAATGACCCTCCAGTCATAGATGTGCCACAGTTGTCAAGTGT
TTACCAGTTTGGTTTCATCACCCACACCCTCCAGCTTTTTTAAATTACTTTTTTTTTTTTTTTTTTTTGGAGACA
GAATCTCACTCTGTGCGCCAGGTTGGAGTGAGTGGCACAATCTCGGCTCACTTGCAACCTCCGCCTCCTGGGTT
CAAGCAGTTCTCCTGCTTCAGCTCCTGAGTAGCTGGGATTACAGGTTCCCGCCACCATGCCAGCTAGTTTTTG
AATTC

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FIGURE 320A

GCCATTTCCCTCCTCTTGTGTTTTCTACTCCGGATTCTCCATGTTGGACCCAAACTGAGGAGCCCGGAGCTGCCGCTGG
GGGATCGGGGGCCGGGGGCACCCGGGGGAGCCGCTGCCCGGGCCGCCGCCCTTTGTACAGGCCGCTCCCTTTCCC
GGTCCGGGGAGGAAACGAGAGGGGGGATGTGAACAGCTGTGGAAGTCGGAGTCTCGGGAGCCGGAGCGGGCCCC
GCCCAGGCCCCCAGCCAGCCAGCCCGCGCGCCCGCCGTCCTCCCGTCCAGCCAGCCCGGGCCCGCGGGATT
GTTAGATGGAACACGGCTCCATCATCACCCAGGCGCGGAGGGAAGACGCCCTGGTGCTACCAAGCAAGGCCTGG
TCTCCAAGTCCCTCTCCTAAGAAGCCTCGTGGACGTAACATCTTCAAGGCCCTTTTCTGCTGTTTTCGCGCCCAGC
ATGTTGGCCAGTCAAGTTCCTCCACTGAGCTCGCTGCGTATAAGGAGGAAGCAAACACCATTGCTAAGTCGGATC
TGCTCCAGTGTCTCCAGTACCAGTTCCTACCAGATCCCAGGGACCTGCCTGCTCCCAGAGGTGACAGAGGAAGATC
AAGGAAGGATCTGTGTGGTCATTGACCTCGATGAAACCCTTGTGCATAGCTCCTTTAAGCCAATCAACAATGCTG
ACTTCATAGTGCCATATAGAGATTGAGGGGACCACTCACAGGTGTATGTGCTCAAGAGGCCTTATGTGGATGAGT
TCCTGAGACGCATGGGGGAACCTTTGAATGTGTTCTCTTCACTGCCAGCCTGGCCAAGTATGCCGACCCTGTGA
CAGACCTGCTGGACCGGTGTGGGGTGTTCGGGGCCCGCTATTCCGTGAGTCTTGCGTGTTCACCAGGGCTGCT
ACGTCAAGGACCTCAGCCGCTGGGGAGGGACCTGAGAAAGACCCCTCATCCTGGACAACCTCGCCTGCTTCTTACA
TATTCACCCCCGAGAATGCAGTGCCTGTGCAGTCTGGTTTTGATGACATGGCAGACACTGAGTTGCTGAACCTGA
TCCCAATCTTTGAGGAGCTGAGCGGAGCAGAGGACGTCTACACCAGCCTTGGGGCAGCTGCGGGCCCCCTTAGCCT
GCCCTGCTTCCAAGCGACGGCCATCCCAGTAGGGGACTTTCCACACTGTGCCTTTACGATCAGCGTGACAGAGT
AGAAGCTGGAGTGCCTCACCACACGGCCCCGAAACAGCGGGAAGTAAGTGAAGAGCTTTAGGACAGCTTAGAT
GCCGAGTGGGCGAATGCCAGACCAATGATACCCAGAGCTACCTGCCGCCAACTTGTGAGATGTGTGTTTACTG
TGAGAGAGTGTGTGTTTGTGTGTGTGTTTGGCCATGAACTGTGGCCCCAGTGTATAGTGTTCAGTGGGGGAGAA
GCTGAAAGACCAAGACTCTTCCCAAGTTAGCTTGTCTCCTCTCCTGTACCCTAAGAGCCACTGAGTTGTGTAGG
GATGAARACTATTGAAGACTCCATTGCCAAACCATGGCCTTTCTCAGTGTGTAAGGCCTATGCCAAGGATAAA
GGAAGGGTATGCCTTTGGGTACTCCAGGCATACACCTTTCTGAAATCCTTCTCCAGCCAGCTGCTGCAGACAAAA
GATCACATTTCTGGGAAGATGAGAACTTGTGTTCCAGACCAGCATCCAGTGGCCATCAGGTCTTGTGGCCCCAAGG
CTATGCTTGCTCCGGCTGAGTGCCTGGGATAGGCCTTTTCTATGTCTCCCCAAGGCTGGGGTGTGAGCCTGCC
TTCTCACCACCTAGCCATAGTCTCAAACCTGTGGGGAAGGAGGTTTTCTCCCTGCCCGGGAAGAGGACAGATAA
CTGATTTCCGTTCTTTTACTGTGTTTTAAATTTCTTTCTAAACACAGAGTGTGGGCCTGGTTTTGTTTTCTGA
CAAAGTTACAGTCTTGGCCTGTAATGAATGTGCGCGCGCTGGGGTTGCAGGGAAAAGACAAATCCTCAAAGCG
TGGACGTGTGTCCCCATGGCTTGTGGATCAGCTAAGCTCGGGATCATTTCATAGTCTGCTTTTTCAGGGATTCT
CTGCTGGTGTGCTGGTGAAGGACTTCTGTTCCAAAGGCTGGGAAAAACTAAGCTGTCCCAGCCCCCTCCATTCTT
GGGCAGGGCTCTTTTCTGTTGTGTCTTCCCCAGGGCCTGTCTGTACCGAGCTCTGTCTGTTCCAGCCTACAT
CCTTCTCGGGTGTGCTTTTCTTCTTAAGGGCTCAGAACTCTTGCTCTTCTGCGGTGAGGGGGAATGAGTGT
CTTGACATGTGACAGCCTAATGCGCATGCTTTCTGCCTCTGGTAACAGGAGTGAGTGAGCCCTCAGACCTGCAC
TCTGGGTGTCTCCTGCTTACAAAGGTTCTTAATAGTGAATGCTTTAAATTAAGTCATCACGAAATGGAAGTTT
TCCCAGGGTGGAAAAATAAGAGGAAGTGTGCTGTGAATTGGGAGCACAAGGGCCTCCCAAAAAGGAGCCCCACCT
CAGCATCACTGCCTTAATCGTGGCCTCCCTGGGGTGGGTGGGGTCTCTCCTCCCTCCCTCCCTCCTCTGGGGT
GGGAGGGCGCTCCTGTTCCCATCTCTGTGTTCCCTGGAGGCAGGTATCACAAAGCATTGTGAATTGCTTTAGGT
GCAGGGACACCACCCACTCAGGACTCTTCCCCATCATCCCTTCCATTGCCACACCCTAGATCCAGCCTCAGGAAC
TAACAAGTTKTGAGAAAAGCAGGTGGTAGAGCAGCAGCTTCGTGCTCTCAGCGGTGGCTGGCTGGCATTCTTCTC
TAGCGTTGTGGTGCCACCTTCCCTTCTGTGCCAAGGTTATAAGGCCTTGTCTTTCTCTTTGGAATCATAAAGTG
GAACAGAGTCCCCAGAACTCATGTGGHCATTTCCGACAGCATCACTCCCCGGTGCCTATGGGGTCCCGGTGTACC
TAAAGGGAGAAGGACCCCCATGTGCTAGCCAGAAATATACTGTCTCTTGAAGGAAAGCAGGAGCTCAGACTCTTAG
AGCCAGCTGTGGCTTCGGACCCAAGGCCTGACCTAGGCTGCTATCCTAATATTGGAGGAGGGGCTCTCTTCCAA
GCCCCACCCTAAGGGTTAGCCCTTGGACAAATCTTGTGCCGTCTAGGCCCAGCCAGGCTTTTCTGACTAAATAAG
CAATAAGAGGCTCTAAGCTGACTGAGTTGCAAGGACCCTTTCCGCCCTCCCTTGGATCTCCATGTTTCTCCAGAT
GGCGGAAGAGCATGTGCCACCCCTTTCTTAACAGACTTGTCCAAGTGCTTGGCGTGGGACCCATGACCAAAGCC
CAGGATGGCTTGGTGGGAGTGTCCCTGCTGCATCTGCATGAAGCCCCTGCTTTTTAGGCCTCACTCCCATCAGAA
CCCTGCCTGCCACCTGCAACTCCCCCAACAATGCCATTCCCACTTGCCCCAGAGAAGCTACTCGGCCAAACC
TAGCCAGGGTCTGTTCTTGTGGACCAGAGCCAGCCTAGTCATTATTTGCTGTGCGGTTTTCCAGTTTCACCGTGTG

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FIGURE 320B

TTAGGGTGAGGGATGATTGTAAAATTTGCTCCTCAAAGGAATCAGGCCAGACTCAATTTTGGGAGGGCAAGACAG
GGAGGAGGCCGCTTCATCCCAGACTCTCTTCTAGGGCTTCCCACCATCAGCCCCCTCCCACTTGAGACTGGTCTTT
GGGAGGCAATAGGCCACCATGCCTGGTCAGCACCAATTCAAGCCATGCCAGGAATCTGCCTACCTGCCAGGTTCA
GTTCTTTTAAAGGTGCCTCTTCAGGGACACAGTGTGTCTCTCTGATTGGGCTTCTAAATCAAAGCCTGATGTTG
TGTCCCTCTCATAGGGGGAGCTTTGGACACAGGACCAGTTTGGAAAAGGGTCAGGTAAGGGTTTCCACTCTGCAC
ATTGTAGAGGGAACACTCTGTAGGCCCATGGGTCCCTTACTAGAGAGGTTGAGTGAATTTGCCTTCAGTTAACAT
GGGACCTTCTGTTTAGCTTCCTCTTGCTTCCCAAAGATTTTAAGCATTTTGTAATGTATAAACTCACCTCTGGT
AACAGTGGCCCAGACGCTGCTTTGTGCTAAAAGCATGGGAAATGTAAAGGCAGTCTTTCTCTGGGAAATGGATGC
TATTCTATTCTGCTGCCCCCTACCTGTTCTGAGGCCTCATTTAGAAAAGAAAATCCCCCTCAGAAGGCTGTCTGGCA
CCCAGTGTCTTAGCCAGGCCAAGTATATGAGAAAGGTAAGTCCATTTTCCCCTTCAGGTCCTCAGTGGATTACTT
AACCCTGCTGTCCCTCGGTCCCTTTTTTCTAAACGGGTTTAGTTCTGTCTTTTTTCTCCTTTTTTCTAAATGCT
GGTAAATATTTACATTCAGCCAGGGAAGAGGAGGCCAGAGGTCGGGCCAGCTGCCCCATTCTTTTAACGTTGTAG
GGCCTGCCCATGGAGCGGACCCTCCTCTTTGGGCCTCGTGAGCTTTTTTGCTTATCATGTTCCATTTTCGTGCCGC
TTTCCCCCTTCAAGATGCCATTTGGAGGGTAGGGGATCTGCTTCCCCTGTGACTGGGCTATGGGATTCTGACTA
CCTTGCTTACAGATTCATGGTTTGATAAATTTGTTGTATTCCAAAACCTGAAATGCAGGACGCCATTAAGTGTCT
GTTTATATTTTTTGAATATTTGTATTACTTACAATTAATTAATAAAAAGTGGGTTTAAAAAACCTTTCCAGGAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 321

MEHGSIIITQARREDALVLTQGLVSKSSPKKPRGRNIFKALFCCFRAQHVGQSSSSTELAAYKEEANTIAKSDLL
QCLQYQFYQIPGTCLLPEVTEEDQGRICVVIDLDETLVHSSFKPINNADFIVPIEIEGTTHQVYVLKRPYVDEFL
RRMGELFECVLFTASLAKYADPVIDLLDRCGVFRARLFRESCVFHQGCYVKDLSRLGRDLRKTILDNSPASYIF
HPENAVPVQSWFDDMADTELLNLIPIFEELSGAEDVYTSLGAAAGPLACPASKRRPSQ

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FIGURE 322

CGTCTGGTTCAGGGGCTAGAAAAGAGCGTCGATGCCGGCGGCAGTGATGAGTCCTAGGAGGCGCTGGCTCTTTGG
CGGCTCGGAGGAGCGGCTGCTGCTGCTGCTGCTGCTGGTGGCCCCCTTGCAGATGTATTGCTGTCCTTGAAT
ATTAGCCCATTGAAAACGCCTGGGAAGTTCAGCCATCAGT**ATGT**CCAAGTACAACTTATTATGTTAAGACATG
GAGAGGGTGCTTGGAATAAGGAGAACCGTTTTTGTAGCTGGGTGGATCAGAACTCAACAGCGAAGGAATGGAGG
AAGCTCGGAACGTGTGGGAAGCAACTCAAAGCGTTAAACTTTGAGTTTGATCTTGTATTACATCTGTCCTTAATC
GGTCCATTACACAGCCTGGCTGATCCTGGAAGAGCTAGGCCAGGAATGGGTGCCTGTGGAAAGCTCCTGGCGTC
TAAATGAGCGTCACTATGGGGCCTTGATCGGTCTCAACAGGGAGCAGATGGCTTTGAATCATGGTGAAGAACAAG
TGAGGCTCTGGAGAAGAAGCTACAATGTAACCCCGCCTCCCATTGAGGAGTCTCATCCTTACTACCAAGAAATCT
ACAACGACCGGAGGTATAAAGTATGCGATGTGCCCTTGGA'TCAACTGCCACGGTCGGAAAGCTTAAAGGATGTTT
TGGAGAGACTCCTTCCCTATTGGAATGAAAGGATTGCTCCCGAAGTATTACGTGGCAAAACCATTCTGATATCTG
CTCATGGAAATAGCAGTAGGGCACTCCTAAAACACCTGGAAGGTATCTCAGATGAAGACATCATCAACATTACTC
TTCCTACTGGAGTCCCCATTCTTCTGGAATTGGATGAAAACCTGCGTGCTGTTGGGCCTCATCAGTTCTCTGGGTG
ACCAAGAGGCGATCCAAGCAGCCATTAAGAAAGTAGAAGATCAAGGAAAAGTGAACAAGCTAAAAA**TAGT**CTT
TCTCAACTGTTGGCTAAGAAGAAATGCAAAAGAAGTGGCATAGGAGTGTGTTATGGGTGCTGAACTCTCTCTCTT
TTTCCCCGATTTTCCAGAGCTAGGCTGTGGAGTAGAGTTTGTATAGGTAAGTACTAGGTAACCTATTGTGGCCCAGAT
AAGGCTTTAGGATGCCTCAGTGCTTATGTCTATAGCCTTATGAGTTAGCTTTCTTGCTAGCCCCCTAGTCGGTCAC
CAAAGTAGTAAGTATGAGGGCTTAATGAAGGTCATAAGTTTCTGAGATGGGAGAGCAACAAGTAGAGATGAAGTT
AAAGGTATTTATCATTCAAGAAATCATTATTGAGTCAACATTGACAGGCACCTATTCTAATCAGTAGTTCACTTTA
ATATTTAATAAGATTTTCTGGGATAACAGTAAGGGATATTAGATAATATACCGTATGTATTTATTACTAGTCTTT
TCCTCTAGGAAAAGGGATACTTTGATAATTAAGGCCAGAGGCCCATTAGTTGAGAAAGTCACAGATATATTTCTC
CAAGAAAGCCAACAACCACCACCACAATGACAGAAATGACAACAAGGCCCTTTAACTTGTCTTCTAGTTTAGAGA
CATCCTTCATTTGACATTTAGTAGAATTCCTCTTTGGCCACAAGAATAAGCAGCAAATAAACAACCTATGGCTGTT
GAGGTTCTCATTTTGGTTTGTTTTAATTTTTTGAACCTTGGGTACCTGTAATTAGTTTAAAAATAAAGTTCCTGA
TAATAAAGTGACTGAAAATGGCAAAAAAAAAAAAAAAAAA

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FIGURE 323

MSKYKLIMLRHGEGAWNKENRFCSWVDQKLNSEGMEEARNCGKQLKALNFEFDLVFTSVLNRSIHTAWLILEELG
QEWVPVESSWRLNERHYGALIGLNREQMALNHGEEQVRLWRRSYNVTPPP IEESHPPYQEIYNDRRYKVC DVPLD
QLPRSESLKDVLERLLPYWNERIAPEVLRGKTILISAHGNSSRALLKHLEGISDEDIINITLPTGVPILLELDEN
LRVGP HQFLGDQEAIQAAIKKVEDQGKVKQAKK

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FIGURE 324A

GGCGCGGGCGGCCTGGAGCCCCGGGAGCGGCGCGCGGTCCCGGCCAGCCGGCTCTCCTGGCCTCGCGCTGCA
CATTCTCTCCTGGCGGCGGCGCCACCTGCAGTAGCGTTTCGCCGAACATCGCGACACGGAGCAGCAGGAGGGAGT
CGCGACTCCCGTTTCTATTACCCCTGGTCGCACTGCTGCCGCGCGGAGCTCTCTGCGAAGTCTGGACGCAGAGGC
TGCACGGCGGCAGCGCGCCCTTGCCCCAGGACCGGGGCTTCTCGTGGTGCAGGGCGACCCGCGCGAGCTGCGGC
TGTTGGGCGCGGGGATGCCAGGGGGGCGAGCCGCGCGGACGAGAAGCCGCTCCGGAGGAAACGGAGCGCTGCCC
TGCAGCCCCGAGCCCATCAAGGTGTACGGACAGGTTAGTCTGAATGATTCCCACAATCAGATGGTGGTGCCTGCGG
CTGGAGAGAAAAGCAACGTGATCGTGGCCTTGCCCCGAGATAGCCTGGCATTGGCGAGGCCCAAGAGCAGTGATG
TGTACGTGTCTTACGACTATGGAAAATCATTCAAGAAAATTTAGACAAGTTAAACTTTGGCTTGGGAAATAGGA
GTGAAGCTGTTATCGCCAGTTCTACCACAGCCCTGCGGACAACAAGCGGTACATCTTTGCGAGACGCTTATGCC
AGTACCTCTGGATCACGTTTGACTTCTGCAACACTCTTCAAGGCTTTCCATCCCATTTGCGGCAGCTGATCTCC
TCCTACACAGTAAGGCCTCCAACCTTCTCTTGGGCTTTGACAGGTCCACCCCAACAAGCAGCTGTGGAAGTCAG
ATGACTTTGGCCAGACCTGGATCATGATTAGGAACATGTCAAGTCCTTTTCTTGGGGAATTGATCCCTATGACA
AACCAAATACCATCTACATTGAACGACACGAACCCTCTGGCTACTCCACTGTCTTCCGAAGTACAGATTTCTTCC
AGTCCCGGGAAAACAGGAAGTGATCCTTGAGGAAGTGAGAGATTTTCAGCTTCGGGACAAGTACATGTTTGCTA
CAAAGGTGGTGCATCTCTTGGGCAGTGAACAGCAGTCTTCTGTCCAGCTCTGGGTCTCCTTTGGCCGGAAGCCCA
TGAGAGCAGCCCAGTTTGTCAACAAGACATCCTATTAATGAATATTACATCGCAGATGCCTCCGAGGACCAGGTGT
TTGTGTGTGTGTCAGCCACAGTAACAACCGCACCAATTTATACATCTCAGAGGCAGAGGGGCTGAAGTTCTCCCTGT
CCTTGGAGAACGTGCTCTATTACAGCCCAGGAGGGGCCGCGCAGTGACACCTTGGTGAGGTATTTTGCAAATGAAC
CATTTGCTGACTTCCACCGAGTGGAAGGATTGCAAGGAGTCTACATTGCTACTCTGATTAATGGTTCTATGAATG
AGGAGAACATGAGATCGGTCATCACCTTTGACAAAGGGGGAACCTGGGAGTTTCTTCAGGCTCCAGCCTTCACGG
GATATGGAGAGAAAATCAATTGTGAGCTTTCCAGGGCTGTTCCCTTCATCTGGCTCAGCGCCTCAGTCAGCTCC
TCAACCTCCAGCTCCGGAGAATGCCATCCTGTCCAAGGAGTCGGCTCCAGGCCTCATCATCGCCACTGGCTCAG
TGGGAAAGAACTTGGCTAGCAAGACAAACGTGTACATCTCTAGCAGTGCTGGAGCCAGGTGGCGAGAGGCACTTC
CTGGACCTCACTACTACACATGGGGAGACCACGGCGGAATCATCACGGCCATTGCCAGGGCATGGAACCAACG
AGCTAAAATACAGTACCAATGAAGGGGAGACCTGGAACAACTCATCTTCTCTGAGAAGCCAGTGTGTTGTGTATG
GCCTCCTCACAGAACCTGGGGAGAAGAGCACTGTCTTACCATCTTGGCTCGAACAAAGAGAATGTCCACAGCT
GGCTGATCCTCCAGGTCAATGCCACGGATGCCTTGGGAGTTCCCTGCACAGAGAATGACTACAAGCTGTGGTCAC
CATCTGATGAGCGGGGGAATGAGTGTGTTGCTGGGACACAAGACTGTTTTCAAACGGCGGACCCCCCATGCCACAT
GCTTCAATGGAGAGGACTTTGACAGGCCGGTGGTGTGTTCAACTGCTCCTGCACCCGGGAGGACTATGAGTGTG
ACTTCGGTTTTCAAGATGAGTGAAGATTTGTCAATTAGAGGTTTGTGTTCCAGATCCGGAATTTTCTGGAAAGTCAT
ACTCCCCTCCTGTGCCCTTGCCCTGTGGGTTTCTACTTACAGGAGAACGAGAGGCTACCGGAAGATTTCTGGGGACA
CTTGTAGCGGAGGAGATGTTGAAGCGCGACTGGAAGGAGAGCTGGTCCCCCTGTCCCCTGGCAGAAGAGAACGAGT
TCATTCTGTATGCTGTGAGGAAATCCATCTACCGCTATGACCTGGCCTCGGGAGCCACCGAGCAGTTGCCTCTCA
CCGGGCTACGGGCAGCAGTGGCCCTGGACTTTGACTATGAGCACAACCTGTTTGTATTGGTCCGACCTGGCCTTGG
ACGTCATCCAGCGCCTCTGTTTGAATGGAAGCACAGGGCAAGAGGTGATCATCAATTCTGGCCTGGAGACAGTAG
AAGCTTTGGCTTTTGAACCCCTCAGCCAGCTGCTTTACTGGGTAGATGCAGGCTTCAAAAAGATTGAGGTAGCTA
ATCCAGATGGCGACTTCCGACTCACAATCGTCAATTCTCTGTGCTTGATCGTCCCAGGGCTCTGGTCTCTGTGC
CCCAAGAGGGGGTGATGTTCTGGACAGACTGGGGAGACCTGAAGCCTGGGATTTATCGGAGCAATATGGATGGTT
CTGCTGCCTATCACCTGGTGTCTGAGGATGTGAAGTGGCCCAATGGCATCTCTGTGGACGACCAGTGGATTTACT
GGACGGATGCCTACCTGGAGTGCATAGAGCGGATCACGTTTCACTGGGATGACTGGTCACAGCTCAGCATATTCC
TCCGCAACCCCTATGCCATTGCTGTCTTAAAGAAATGAAATCTACTGGGATGACTGGTCACAGCTCAGCATATTCC
GAGCTTCCAAATACAGTGGGTCCCAGATGGAGATTCTGGCAAACAGCTCACGGGGCTCATGGACATGAAGATTT
TCTACAAGGGGAAGAACTGGAAGCAATGCCTGTGTGCCAGGCCATGCAGCCTGCTGTGCCTGCCCAAGGCCA
ACAACAGTAGAAGCTGCAGGTGTCCAGAGGATGTGTCCAGCAGTGTGCTTCCATCAGGGGACCTGATGTGTGACT
GCCCTCAGGGCTATCAGCTCAAGAACAATACCTGTGTCAAAGAAGAGAACACCTGTCTTCGAACCAAGTATCGCT
GCAGCAACGGGAACGTATCAACAGCATTGTTGGTGGTGTGACTTTGACAACGACTGTGGAGACATGAGCGATGAGA
GAAACTGCCCTACCACCATCTGTGACCTGGACACCCAGTTTCGTTGCCAGGAGTCTGGGACTTGTATCCCCTGT
CCTATAAATGTGACCTTGGAGTACTGTGGAGACAACAGTGATGAAAGTCATTGTGAAATGCACCAAGTGCCGGA

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FIGURE 324B

GTGACGAGTACAACCTGCAGTTCCGGCATGTGCATCCGCTCCTCCTGGGTATGTGACGGGGACAACGACTGCAGGG
ACTGGTCTGATGAAGCCAACCTGTACCGCCATCTATCACACCTGTGAGGCCTCCAACCTCCAGTGCCGAAACGGGC
ACTGCATCCCCCAGCGGTGGGCGTGTGACGGGGATACGGACTGCCAGGATGGTTCCGATGAGGATCCAGTCAACT
GTGAGAAGAAGTGCAATGGATTCCGCTGCCCAAACGGCACTTGATCCCATCCAGCAAACATTGTGATGGTCTGC
GTGATTGCTCTGATGGCTCCGATGAACAGCACTGCGAGCCCCCTCTGTACGCACTTCATGGACTTTGTGTGTAAGA
ACCGCCAGCAGTGCCTGTTCCACTCCATGGTCTGTGACGGAATCATCCAGTGCCGCGACGGGTCCGATGAGGATG
CGGCGTTTGCAGGATGCTCCCAAGATCCTGAGTTCCACAAGGTATGTGATGAGTTCGGTTTCCAGTGTCAGAATG
GAGTGTGCATCAGTTTGATTGGAAGTGCACGGGATGGATGATTGCGGCGATTATTCTGATGAAGCCAACCTGCG
AAAACCCACAGAAGCCCCAACTGCTCCCGCTACTTCCAGTTTCGGTGTGAGAATGGCCACTGCATCCCCAACA
GATGGAAATGTGACAGGGAGAACGACTGTGGGGACTGGTCTGATGAGAAGGATTGTGGAGATTCACATATTCTTC
CCTTCTCGACTCCTGGGCCCTCCACGTGTCTGCCAATTACTACCGCTGCAGCAGTGGGACCTGCGTGATGGACA
CCTGGGTGTGCGACGGGTACCGAGATTGTGCAGATGGCTCTGACGAGGAAGCCTGCCCTTGCTTGCAAACGTCA
CTGCTGCCTCCACTCCCACCCAACCTGGGCGATGTGACCGATTGAGTTCGAATGCCACCAACCGAAGACGTGTA
TTCCCAACTGGAAGCGCTGTGACGGCCACCAAGATTGCCAGGATGGCCGGGACGAGGCCAATTGCCCCACACACA
GCACCTTGACTTGATGAGCAGGGAGTTCAGTGCGAGGACGGGGAGGCCTGCATTGTGCTCTCGGAGCGCTGCG
ACGGCTTCTGGACTGCTCGGACGAGAGCGATGAAAAGGCCTGCAGTGATGAGTTGACTGTGTACAAAGTACAGA
ATCTTCAGTGACAGCTGACTTCTCTGGGGATGTGACTTTGACCTGGATGAGGCCCAAAAAATGCCCTCTGCTT
CTTGTTATATAATGTCTACTACAGGTGGTTGGAGAGAGCATATGGAAGACTCTGGAGACCCACAGCAATAAGA
CAAACACTGTATTAAGTCTTGAAACCAGATACCACGTATCAGGTTAAAGTACAGGTTTCACTGTCTCAGCAAGG
CACACAACACCAATGACTTTGTGACCCTGAGGACCCAGAGGGATTGCCAGATGCCCTCGAAATCTCCAGCTGT
CACTCCCCAGGGAAGCAGAAGGTGTGATTGTAGGCCACTGGGCTCCTCCCATCCACACCCATGGCCTCATCCGTG
AGTACATTGTAGAATACAGCAGGAGTGGTTCCAAGATGTGGGCCTCCAGAGGGCTGCTAGTAACCTTTACAGAAA
TCAAGAACTTATTGGTCAACACTCTATACACCGTCAGAGTGGCTGCGGTGACTAGTCGTGGAATAGGAACTGGA
GCGATTCTAAATCCATTACCACCATAAAAGGAAAAGTGATCCCACCACCAGATATCCACATGACAGCTATGGTG
AAAATTATCTAAGCTTCACCCTGACCATGGAGAGTGATATCAAGGTGAATGGCTATGTGGTGAACCTTTTCTGGG
CATTTGACACCCACAAGCAAGAGAGGAGAAGTTTGAACCTCCGAGGAAGCATATTGTACACAAAAGTTGGCAATC
TGACAGCTCATACTCCTATGAGATTTCTGCCTGGGCCAAGACTGACTTGGGGGATAGCCCTCTGGCATTGAGC
ATGTTATGACCAGAGGGGTTGCCCCACCTGCACCTAGCCTCAAGGCCAAAGCCATCAACCAGACTGCAGTGGAAT
GTACCTGGACCGGCCCCCGGAATGTGGTTTATGGTATTTTCTATGCCACGTCCTTTCTTGACCTCTATCGCAACC
CGAAGAGCTTGACTACTTCACTCCACAACAAGACGGTCATTGTGAGTAAGGATGAGCAGTATTTGTTTCTGGTCC
GTGTAGTGGTACCCTACCAGGGGCCATCCTCTGACTACGTTGTAGTGAAGATGATCCCGGACAGCAGGCTTCCAC
CCCGTCACCTGCATGTGGTTCATACGGGCAAAACCTCCGTGGTTCATCAAGTGGGAATCACCGTATGACTCTCCTG
ACCAGGACTTGTTGTATGCAATTGCAGTCAAAGATCTCATAAGAAAGACTGACAGGAGCTACAAAGTAAAATCCC
GTAACAGCACTGTGGAATACACCCTTAACAAGTTGGAGCCTGGCGGGAAATACCACATCATTGTCCAACCTGGGGA
ACATGAGCAAAGATTCCAGCATAAAAATTACCACAGTTTCATTATCAGCACCTGATGCCTTAAAAATCATAACAG
AAAATGATCATGTTCTTCTGTTTTGGAAAAGCCTGGCTTTAAAGGAAAAGCATTTTAAATGAAAGCAGGGGCTATG
AGATACACATGTTTGATAGTGCCATGAATATCACAGCTTACCTTGGGAATACTACTGACAATTTCTTTAAATTT
CCAACCTGAAGATGGGTCATAATTACACGTTACCGTCCAAGCAAGATGCCTTTTTGGCAACCAGATCTGTGGGG
AGCCTGCCATCCTGCTGTACGATGAGCTGGGGTCTGGTGCAGATGCATCTGCAACGCAGGCTGCCAGATCTACGG
ATGTTGCTGCTGTGGTGGTGCCCATCTTATTCCTGATACTGCTGAGCCTGGGGTGGGGTTTGCCATCCTGTACA
CGAAGCACCGGAGGCTGCAGAGCAGCTTACCGCCTTCGCCAACAGCCACTACAGCTCCAGGCTGGGGTCCGCAA
TCTTCTCCTCTGGGGATGACCTGGGGGAAGATGATGAAGATGCCCTATGATAACTGGATTTTTCAGATGACGTCC
CCATGGTGATAGCTGAAAGAGCTTTCCTCACTAGAAACCAATGGTGTAATATTTTATTTGATAAAGATAGTT
GATGGTTTATTTTAAAGATGCACCTTGAGTTGCAATATGTTATTTTATATGGGCCAAAAACAAAAACAAAAA
AAAAAA

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FIGURE 325

MATRSSRRESRLPFLFTLVALLPPGALCEVWTQRLHGGSAPLPQDRGFLVVQGDPRELRLWARGDARGASRADEK
PLRRKRSAAALQPEPIKVYGVSLNDSHNQMVVHWAGEKSNVIVALARDSLALARPKSSDVYVSYDYGKSFKKISD
KLNFGGLGNRSEAVIAQFYHSPADNKRYIFADAYAQYLWITFDFCNTLQGFSSIPFRAADLLLHASKASNLLGLFDRS
HPNKQLWKSDDFGQTWIMIQEHSVKSFSWGIDPYDKPNTIYIERHEPSGYSTVFRSTDFQSRNQEVILEEVRDF
QLRDKYMFA TKVVHLLGSEQQSSVQLWVSFGRKPMRAAQFVTRHP INEYYIADASEDQVFVCSHNSNNRTNLYIS
EAEGLKFSLSLENVLYYSPGGAGSDTLVRYFANEPFADFHRVEGLQGVYIATLINGSMNEENMRSVITFDKGGTW
EFLQAPAFGTGYGEKINCELSQGCSLHLAQRLSQLNLQLRRMPILSKESAPGLIATGSVGKNLASKTNVYISSS
AGARWREALPGPHYTWGDHGGIITAI AQGMETNELKYSTNEGETWKTFIFSEKPVFVYGLLTPGEKSTVFTIF
GSNKENVHSWLILQVNATDALGVPCTENDYKLWSPSDERGNELGHKTVFKRRTPHATCFNGEDFDRPVVVSNC
SCTREDYECDFGFKMSEDLSLEVCVPDPEFSGKSYSPVPVPCPVGSTYRRTRGYRKISGDTCSGGDVEARLEGELV
PCPLAEENEFILYAVRKSIYRYDLASGATEQLPLTGLRAAVALDFDYEHNCPLYWSDALDVIQRLCLNGSTGQEV
I INSGLETVEALAFEPLSQLLYWVDAGFKKIEVANPDGDFRLTIVNSSVLDRLALVLPQEGVMFWTDWGD LKP
GIYRSNMDGSAAYHLVSEDVKWPNGISVDDQWIYWTDAYLECIERITFSGQQRSVILDNLPHPYAIAVFKNEIYW
DDWSQLSIFRASKYSGSQMEILANQLTGLMDMKIFYKGKNTGSNACVPRPCSLCLPKANNRSRSCPCPEDVSSSV
LPSGDLMCDCPQGYQLKNNTCVKEENTCLRNQYRCSNGNCINSIWCDFDNDCGMSDERNCPTTICDLDTQFRC
QESGTCIPLSYKCDLEDDCGDNSDESHCEMHQCRSDEYNCSGMCIRSSWVCDGDND CRDWSDEANCTAIYHTCE
ASNFQCRNGHCIPQRWACDGD TDCQDGSDEDPVNCEKKCN GFRCPNGTCIPSSKHCDGLRDCSDGSDEQHCEPLC
THFMDFVCKNRQQLFHS MVCDGIIQCRDGSDEDAAFAGCSQDPEFHKV CDEFGFQCQNGVCISLIWKCDGMDDC
GDYSDEANCENPTEAPNCSRYFQFRCENGHCIPNRWKCDREND CGDWSDEKDCGDSHILPFSTPGPSTCLPNYYR
CSSGTCVMDTWVCDGYRDCADGSDEEACPLLANVTAASTPTQLGRCDRFEFECHQPKTCIPNWKRC DGHQDCQDG
RDEANCPHTSTLTCSREFQCEDEGEACIVLSERCDGFLDCSDESDEKACSDELTVYKVQNLQWTADFSGDVTLTW
MRPKKMPASACVYNVYYRVVGESIWKTLETHSNKTNTVLKVLKPD TTYQVKVQVQCLSKAHNTNDFVTLRTPEGL
PDAPRNQLSLPREAEGVIVGHWAPPIHTHGLIREYIVEYSRSGSKMWASQRAASNFT EIKNLLVNTLYTVRVAA
VTSRGIGNWSDSKSITTIKGKVI PPPDIHIDSYGENYLSFTLTMESDIKVNGYVVNLFWAFDTHKQERRTL NFRG
SILSHKVGNLTAHTSYEISAWAKTDLGDSPLAFEHVMTRGVRPPAPSLKAKAINQTAVECTWTGPRNVVYGIFYA
TSFLDLYRNPKSLTSLHNKTVIVSKDEQYLF LVRVVVPYQGPSSDYVVVKMIPDSRLPPRHLHVHTGKTSVVI
KWESPYDSPDQDLLYAI AVKDLIRKTD RSYKVKS RNSTVEYTLNKLEPGG

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FIGURE 326A

CACGTTGGGTGACATAATGGGGTTTTTTTAATTATAGATTACACTGCATTTATTCATCACCCCTGTCCTCTCAT
 CCATAACTCAAATTTACTACCAGCAACACAAAATACAAAGATGTGTCCAGTTTCACTACAGCTCTTCGCGTTTAC
 AAGTGTGAGCGCTTGCTTTCGGAACGCCCTTGATTTGGCCGAGCCAATGCCAGTGACATCAACCAACTTACTT
 TTGATTGGAAGGCTGGTTGCTGGGACTGTAGCGTTTGAGGAAGTCACTTAACTGTTTGGGAGCTGGAAAACCGA
 AGCTGAAGTTCTCTTTTGCCATAGGAACGAGCGCAACTGACTAGGAAAGATGTGTCCCAAAGCTCCGCAAGCTGG
 AACGTGAGCCAGGAGGCCCGACCGGCCACGGGACCGCGAGGCACTCCGAAAGTGTGCGGCTGCCCTTCCCTGC
 CTCCCAGCTGTTACCCCTTTAAATGTCAGTGTTCGAGGCTGTAGGGGTAGCACGAGGCAGCGAAACGGAACAGTC
 GGATTGGCCGCACGCCTCAGTTCTAGACGCACCTCTCCACCGAAGCCGTTCTGACTGGCAGGGGGAGAAAGTAAA
 CAGAGTTGAATCACCCCTCCCCACTGGCCAAATTGGAGGGGGTTTGGTTTGTGACGTGATGGGATTCTGCGAAATTG
 TTACTGAGCAAGAGAATGCCGGAACGTGCGGACCGGCCGAGCAGGGGTTCAGAAGCCGTCAGTGGACTCGGGAA
 AAAGTGTCTCTTAGACCTGGCGCTCGGCGGGGCCCTCGCCACCCGCGTGGGGTGATCGGGTGAATGTCCTGGGG
 CTTTGGCTCGACGGCGAGGCGGCCGAGGGCGTGACCTCTCTTGACGTTTCTCTCCAGCGCTCGGGGGCGTT
 TTCAGTCGAATAAACTTGCGACCGCCACGTGTGGCATCTTTCCAAGGGAGCCGGCTCAGAGGGGCGGCGCGCCC
 GTCGGGGGATCGCGGCCGCGCGGGGCGAGGGGCGGCGGCTAGAGGCGGCGCGCGGCGGAGCCCGGGGCGCTGGA
 TGCTGCGTGCGGAGGCGCTGCCGTTACGTAAAGATGAGGGGTGAGGTCGCTCGGCGCTCCTGCGAGTCGGAA
 GCGCCCCGCGCCCCCGCCCCCTTGGCCGCCGCGCCGTGCCGGGCGGGCGGGTCTGCTCCGAGGCCAGGGAGGGC
 GAGCCGAACCTCCGCGACCCACCGCCAAGTTTGTCCGCGCCGCTGGGGTGGCGTCCCGCGACCATGTCGCGGC
 CGCTACATGGAATTCGTGGCTGCCAGTGTCTGGTTTCCATTTTGAACCGCGTGGGTGCCGAGCATGGGGT
 CGCTCCGGACGCCGAGCGGTGCGACTACCTGAGCGCGAGGTGACCAAGGAGCACGGTGACCCGGGGGACACCTG
 GAAGGATTACTGCACACTGCTCACCATCGCCAAGAGCTTGTGGACCTGAACAAGTACCGACCCATCCAGACCCC
 CTCCGTGTGACGCGACAGTCTGGAAGTCCAGATGAGGATATGGGATCCGACAGCGACGTGACCACCGAATCTGG
 GTCGAGTCTTCCACAGCCCGGAGGAGAGACAGGATCTTGGCAGCGCGCCAGCCGCTCTCCCTCTCCATCC
 TGGAGTGGCTGCGAAGGGGAAACACGCCTCCGAAAAGAGGCACAAGTGGCCCTACAGTGGCTGTGGGAAAGTCTA
 TGGAAAATCTCCCATCTCAAAGCCATTACAGAGTGCATACAGGTGAACGGCCCTTCCCCTGCACGTGGCCAGA
 CTGCCTTAAAAAGTTCTCCCGCTCAGACGAGCTGACCCGCCACTACCGGACCCACACTGGGGAAAAGCAGTTCCG
 CTGTCCGCTGTGTGAGAAGCGCTTCATGAGGAGTGACCACCTCACAAGCACGCCCCGGCGGCACACCGAGTTCCA
 CCCCAGCATGATCAAGCGATCGAAAAAGGCGTGGCCAACGCTTTGTGAGGTGCTGCCCCGTGGAAGCCAGGGAGG
 GATGGACCCCGAAAAGGACAAAAGTACTCCAGGAAACAGACGCGTGAAAAGTGAAGCCAGAGGCACACTTG
 ACGGCACAGGAAGTCACTGCTCTTTGGTCAATATCTGATTTTCTCTCCCTGCATTGTTTTTAAAAAGCÀATT
 GTAGCCTAAGATCAAAGTCAACAACACTCGGTCCCCTTGAAGAGGCAACTCTCTGAACCCGCTCTCTGACTGTTGG
 AGGGAAGGCAAATGCTTTTGGGTTTTTTTGGTTTTTGTTTTTTGTTTTTTTCTCCTTTTATTTTTTTGCGGGGA
 GGGTAGGGAGTGGGTGGGGGGGAGGGGGTAAGGCCAAGACTGGGTAGATTTTAAAGATTCAACACTGGTGTACAT
 ATGTCGCGTGGGTGAGTTGACCTGTGGCTCGCACAGTGATTCTAGGCCCTTTATGCTTGCTGTCTCTCAGAATT
 GTTTTCTTACCTTTTAAATGTAATGACGAGTGTGCTTCAGTTTGTTTAGCAAAACCACTCTCTTGAATCACGTTAA
 CTTTTGAGATTAAAAAAGGCGCATAGCACAGCTGTCTTTATGCAAGCAAGAGCACATCTACTCCAGCATGA
 TCTGTATCTAAAGACTTGAAAACAAAAACAGTTACTTATAGTCAATGGGTAAGCAGAGTCTGAATTTATACTA
 ATCAAGACAAACCTTTGAAAGGTTACACTAAGTACAGAACCTTTAAACCTTGCTTTGTATGAGTTGTACTTTTTG
 AACATAAGCTGCACTTTTATTTTCTAATGCAGAGGATGAATAAGTTAAATACATGCTTTGAGGATAGAAGCAGAT
 GTTCTGTTTGGCACCGTTATAATCTGCTTATTTTACAATATACACGTTTCCCTAAGAAATCATGCGCAGAGAT
 GTGAGGGCAGAATATACACAACAGATGCTGAAGGAGAAGGAGGGTAGTGTTTGCAAAAGAAAAAGAAAGAACCC
 AACAGAATTTTAACTCTATTAACCTTTCCAAATTTTCTATGCTTTTAGTTAACATCATTATTGTATCCTAATGC
 CACTAGGGGAGAGAGCTTTTGACTCTGTTGGGTTTTATTTGAATGTGTGCATAACAGTAATGAGATCTGGAACA
 CCTATTTTTTGGGGAAAAAGGTTTGTGGTCTCCTTCTGTGTTTCTACAAAACCTCCCACTCTCAGGTGCAAGAG
 TTATGTAGAAGGAAAGGGAGCTGAAAATAGGAACAGAAAAATCAACCCCTATAACTAGTGAACACCAAGGGAAAT
 ACCACAATGATTTTCAAGGAGACTCTGCAAAATCGTCCCTTGTGGAGAATGCAGGCAACATGGAATACTACGAAT
 GAAATCACATCACTGTATCTTTTACATCAATAGCCTCACCCTAATATATCTTGTATCTAGGTGTCTATAATGGC
 TGAAACCACTACATCCATCTATGCCATTTACCTGAAAACCTTAACTGTGGCCTTTATGAGGCCAGAAAAGTGAAC
 GAGTTTTGTAGTTAAGACCTCAAATGAGGGGAGTCAGCAGTGATCATGGGGGAAATGTTTACATTTTTTTTTTCT

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FIGURE 326B

TCAGAAGTAACGCTTTCTGATGATTTTATCTGATATTTAAAACAGGGAGCTATGGTGCACTCTAGTTTATACTTG
CGCTCTGAAATGTGTAAACATAGGGTGCCTACCTATTTACCTGACCCATACTCGTTTCTGATTCAGAATCAGTG
TGGGCTCCTGCAGTGGGCGCGGGTCACGGCTGACTCCAACCTTCCAATACAACAGCCATCACTAGCACAGTGTTTT
TTTGTTTAACCAACGTAGTGTTATTAGTAGTTCTATAAAGAGAAGTCTTTTAACATTAGGGACTGGGAGCAGTC
CATGGGATAAAAAGGAAAGTGTTTTCTCACGAGAAAACATGTCAGGAAAAATAAAGAACACTTTCTACCTCTGTT
TCAGATTTTTGAAACACTTATTTTAAACCAAATTTTAATTTCTGTGTCCAAAATAAGTTTTAAGGACATCTGTTC
TTCCATACGAAATAGGTTAGGCTGCCTATTTCTCACTGAGCTCATGGAATGGTTCGCTTATGATACTCTGCACG
CTGCCTTTTAGTGAGTGAGGAGTTTGGGGTTGCCTAGCACTTGCTAACTTGTAAGTCACTCTTCCCTCACAG
AAAGAAACGAAAGAAAGCAAAGCAAAGTCAGTGAAAGACAATCTTTATAGTTTCAGGAGTAAATCTAAATGTGGC
TTTTGTCAAGCACTTAGATGGATATAAATGCAGCAACTTGTTTTAAAAAATGCACATTTACTTCCAAAAAAGT
TGTTACTTGCCTTTTCAAGTGTGACAACTCACATTTGATATTCTCTTATATGTTATAGTAATGTAACGTATAAA
CTCAAGCCTTTTTTATTCTTTGTGATTAAATCCTGTTTTAAATGTCAAAAACAGGAACCAGCATTCTAATTAGA
TTTACTATATCAAGATATGGTTCAAATAGGACTACTAGAGTTTATTGAACACTAAAACATGAAACAATTACTTT
TTATATTAAGAACCATGGATTTAACTTATGAAAATCCAAATGCAGGATAGTAATTTTTGTTTACTTTTTTAAC
CAAACGAATTTTTGAAAGACTATTGCAGGTGTTTTAAAAAGAAAGAAAGTTGTTTTATCTAATACTGTAAGTAG
TTGTCATATTCTGGAAAATTTAATAGTTTTAGAGTTAAGATATCTCCTCTCTTTGGTTAGGGAAGAAGAAAGCCC
TTCACCATTGTGGAATGATGCCCTGGCTTTAAGGTTTAGCTCCACATCATGCTTCTCTT

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FIGURE 327

MSAAAYMDFVAAQCLVSI SNRAAVPEHGVAPDAERLRLPEREVTKEHGDPGDTWKDYCTLVTIAKSLLDLNKYRP
IQTPSVCSDSLSPDEDMGSDSDVTTESGSSPSHSPEERQDPGSAPSPLSLLHPGVAAGKHASEKRHKCPYSGC
GKVYKGSSHLKAHYRVHTGERPFPCTWPDCLKKFSRDELTRHYRTHTGKQFRCPLCEKRFMRSDHLTKHARRH
TEFHPSMIKRSKKALANAL

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FIGURE 328A

CACGTTGGGTGACATAATGGGGTTTTTTTAAATTATAGATTACACTGCATTTATTTCATCACCCCTGTCCTCTCAT
 CCATAACTCAAATTTACTACCAGCAACACAAAATACAAAGATGTGTCCAGTTTCACTACAGCTCTTCGCGTTTAC
 AAGTGTGAGCGCTTGCTTTCGGAACGCCCTTGTGATTGGCCGAGCCAATGCCAGTGACATCAACCAACTTACTT
 TTGATTGGAAGGCTGGTTGCTGGGACTGTAGCGTTTGCAGGAAGTCACTTAACTGTTTGGGAGCTGGAAAACCGA
 AGCTGAAGTTCTCTTTTGCCATAGGAACGAGCGCAACTGACTAGGAAAAGATGTGTCCCAAAGCTCCGCAAGCTGG
 AACGTGAGCCAGGAGGCCCGGACCGGCCACGGGACCGCGAGGCACTCCGAAAAGTGTGCGGCTGCCCTTCCCTGC
 CTCCAGCTGTTACCCTTTTAAATGTCAGTGTTCGAGGCTGTAGGGGTAGCACGAGGCAGCGAAACGGAACAGTC
 GGATTGGCCGCACGCCCTCAGTTCTAGACGCACCTCTCCACCGAAGCCGTTCTGACTGGCAGGGGGAGAAAGTAAA
 CAGAGTTGAATCACCCCTCCCACTGGCCAATTGGAGGGGGTTTTGGTTTGTGACGTGATGGGATTCTGCGAAATTG
 TTACTGAGCAAGAGAATGCCGGAACGTGCGGACCGGCCGAGCAGGGGTTGAGAAGCCGTGAGTGGACTCGGGAA
 AAAGTGTCTCTTAGACCTGGCGCTCGGCGGGGCCCTCGCCACCCGCGTCGGGGTGATCGGGTGAATGTCCTGGGG
 CTTTGGCTCGACGGCGAGGCGGCCGAGGGCGTGCACCTCTCTTGCAGTTTCTCTCCAGCGCTCGGGGGCGTT
 TTCAGTCGAATAAACTTGCAGCCGCCACGTGTGGCATCTTTCCAAGGGAGCCGGCTCAGAGGGGCCGGCGCGCCC
 GTCGGGGGATCGCGGCCGGCGCGGGGACAGGGGCGGCGGCTAGAGGCGGCGGCGCGGCGGAGCCCGGGGGCGTGA
 TGCTGCGTGCGGAGGCGCTGCCGGTTACGTAAAGATGAGGGGCTGAGGTCGCTCGGCGCTCCTGCGAGTCGGAA
 GCGCCCCGCGCCCCCGCCCCCTTGGCCGCCGCGCGCTGCCGGGCGGGCGGGTCTGCTCCGAGGCCAGGGAGGGC
 GAGCCGAACCTCCGACGCCACCGCCAAGTTTGTCCGCGCCGCTGGGCTGCCGTGCCCCGACCA**ATGT**CCGCGGC
 CGCCTACATGGACTTCGTGGCTGCCAGTGTCTGGTTTCCATTTGCAACCGCGCTGCGGTGCCGGAGCATGGGGT
 CGCTCCGGACGCCGAGCGGTGCGACTACCTGAGCGCGAGGTGACCAAGGAGCACGGTGACCCGGGGGACACCTG
 GAAGGATTACTGCACACTGGTCACCATCGCCAAGAGCTTGTGGACCTGAACAAGTACCGACCCATCCAGACCCC
 CTCCGTGTGCAGCGACAGTCTGGAAGTCCAGATGAGGATATGGGATCCGACAGCGACGTGACCACCGAATCTGG
 GTCGAGTCCTTCCACAGCCCGGAGGAGAGACAGGATCCTGGCAGCGCGCCAGCCCGCTCTCCCTCTCCATCC
 TGGAGTGGCTGCGAAGGGGAAACACGCCTCCGAAAAGAGGCACAAGTGCCCTACAGTGGCTGTGGGAAAGTCTA
 TGGAAAATCCTCCCATCTCAAAGCCATTACAGAGTGATACAGGTGAACGGCCCTTCCCCTGCACGTGGCCAGA
 CTGCCTTAAAAAGTTCTCCCGCTCAGACGAGCTGACCCGCCACTACCGGACCCACACTGGGGAAAAGCAGTTCCG
 CTGTCCGCTGTGTGAGAAGCGCTTCATGAGGAGTGACCACCTCACAAAGCACGCCCGGCGGCACACCGAGTTCCA
 CCCCAGCATGATCAAGCGATCGAAAAGGCGCTGGCCAACGCTTTG**TGAG**GGTGCTGCCCCGTGGAAGCCAGGGAGG
 GATGGACCCCCGAAAGGACAAAAGTACTCCAGGAAACAGACGCGTGAAAAGTGAAGCCAGAGGCACACTTG
 ACGGCACAGGAAGTCACTGCTCTTTGGTCAATATTCTGATTTTCTCTCCCTGCATTGTTTTTAAAAAGCACATT
 GTAGCCTAAGATCAAAGTCAACAACACTCGGTCCCCTTGAAGAGGCAACTCTCTGAACCCGTCTCTGACTGTTGG
 AGGGAAGGCAAATGCTTTTGGGTTTTTTGGTTTTTTGGTTTTTTTCTCCTTTTATTTTTTTGCGGGGA
 GGGTAGGGAGTGGGTGGGGGGGAGGGGGTAAGGCCAAGACTGGGTAGATTTTAAAGATTCAACACTGGTGTACAT
 ATGTCCGCTGGGTGAGTTGACCTGTGGCCTCGCACAGTGATTCTAGGCCCTTTATGCTTGCTGTCTCTCAGAATT
 GTTTTCTTACCTTTTAAATGTAATGACGAGTGTGCTTCAGTTTGTTTAGCAAAACCACTCTCTGAATCACGTTAA
 CTTTTGAGATTAAAAAAGGACCCATAGCACAGCTGTCTTTATGCAAGCAAGAGCACATCTACTCCAGCATGA
 TCTGTCATCTAAAGACTTGAAAACAAAAACAGTTACTTATAGTCAATGGGTAAGCAGAGTCTGAATTTATACTA
 ATCAAGACAAACCTTTGAAAGTTACACTAAGTACAGAACTTTTAAACCTTGCTTTGTATGAGTTGTACTTTTTG
 AACATAAGCTGCACTTTTATTTTCTAATGCAGAGGATGAATAAGTTAAATACATGCTTTGAGGATAGAAGCAGAT
 GTTCTGTTTGGCACCGTTATAATCTGCTTATTTTACAATATACACGTTTCCCTAAGAAATCAATGCGCAGAGAT
 GTGAGGGCAGAATATACACAACAGATGCTGAAGGAGAAGGAGGGTAGTGTTTGCAAAAGAAAAAGAAAGAACC
 AACAGAATTTTAACTCTATTAACCTTTTCCAAATTTTCTATGCTTTTAGTTAACATCATTATTGTATCCTAATGC
 CACTAGGGGAGAGAGCTTTTGACTCTGTGGGTTTTATTTGAATGTGTGCATAACAGTAATGAGATCTGGAAACA
 CCTATTTTTTGGGGAAAAAGGTTTGTGGTCTCCTTCTGTGTTTCTTACAAAACCTCCACTCTCAGGTGCAAGAG
 TTATGTAGAAGGAAAGGGAGCTGAAATAGGAACAGAAAAATCAACCCCTATAACTAGTGAACACCAAGGGAAAT
 ACCACAATGATTTTCAAGGAGACTCTGCAAAATCGTCCCTTGTGGAGAATGCAGGCAACATGGAATACTACGAAT
 GAAATCACATCACTGTATCTTTTACATCAATAGCCTCACCCTAATATATCTTGTATCTAGGTGTCTATAATGGC
 TGAAACCACTACATCCATCTATGCCATTTACCTGAAAACCTTAACTGTGGCCTTTATGAGGCCAGAAAAGTGAAC
 GAGTTTTGTAGTTAAGACCTCAAATGAGGGGAGTCAGCAGTGATCATGGGGGAAATGTTTACATTTTTTTTTTCT

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FIGURE 328B

TCAGAAGTAACGCTTTCTGATGATTTTATCTGATATTTAAAACAGGGAGCTATGGTGCACTCTAGTTTATACTTG
CGCTCTGAAATGTGTAAACATAGGGTGCCTACCTATTTACCTGACCCATACTCGTTTCTGATTCAGAATCAGTG
TGGGCTCCTGCAGTGGGCGGGTACGGCTGACTCCAACCTCCAATACAACAGCCATCACTAGCACAGTGTTTT
TTTGTTTAACCAACGTAGTGTATTAGTAGTTCTATAAAGAGAAGTGTCTTTAACATTAGGGACTGGGAGCAGTC
CATGGGATAAAAAGGAAAGTGTTTTCTCAGAGAAAACATGTCAGGAAAAATAAAGAACACTTTCTACCTCTGTT
TCAGATTTTTGAAACACTTATTTTAAACCAAATTTTAATTTCTGTGTCCAAAATAAGTTTTAAGGACATCTGTTT
TTCCATACGAAATAGGTTAGGCTGCCTATTTCTCACTGAGCTCATGGAATGGTTCTGCTTATGATACTCTGCACG
CTGCCTTTTAGTGAGTGAGGAGTTTGGGGTTGCCTAGCACTTGCTAACTTGTAAGAAAGTCATCTTTCCCTCACAG
AAAGAAACGAAAGAAAGCAAAGCAAAGTCAGTGAAAGACAATCTTTATAGTTTCAGGAGTAAATCTAAATGTGGC
TTTTGTCAAGCACTTAGATGGATATAAATGCAGCAACTTGTTTTAAAAAAATGCACATTTACTTCCAAAAAAGT
TGTTACTTGCCTTTTCAAGTGTGACAACTCACATTTGATATTCTCTTATATGTTATAGTAATGTAACGTATAAA
CTCAAGCCTTTTTATTCTTTGTGATTAAATCCTGTTTTAAATGTCACAAAACAGGAACCAGCATTCTAATTAGA
TTTACTATATCAAGATATGGTTCAAATAGGACTACTAGAGTTCATTGAACACTAAACTATGAAACAATTACTTT
TTATATTAAGAAAGACCATGGATTTAACTTATGAAAATCCAAATGCAGGATAGTAATTTTTGTTTACTTTTTTAAC
CAAAGTGAATTTTTGAAAGACTATTGCAGGTGTTTTAAAAAGAAAGAAAGTTGTTTTATCTAATACTGTAAGTAG
TTGTCATATTCTGGAATTTAATAGTTTTAGAGTTAAGATATCTCTCTCTTTGGTTAGGGAAGAAGAAAGCCC
TTCACCATTGTGGAATGATGCCCTGGCTTTAAGGTTTAGCTCCACATCATGCTTCTCTT

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FIGURE 329

MSAAAYMDFVAAQCLVSI SNRAAVPEHGVAPDAERLRLPEREVTKEHGDPGDTWKDYCTLVTIAKSLLDLNKYRP
IQTPSVCSDSLSPDEDMGSDSDVTTESGSSPSHSPEERQDPGSAPSPLSLLHPGVAAKGKHASEKRHKCPYSGC
GKVYKGSSHLKAHYRVHTGERPFPCTWPDCLKKFSRDELTRHYRHTTGEKQFRCPLCEKRFMRSDHLTKHARRH
TEFHPSMIKRSKKALANAL

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FIGURE 330

CACCGCGCAAGCGCATCCTGGCCTTTCTTCAGTCCCCACGTGCGATCCTTCCCGGCAACTTTTTCGAGAAAAATG
CCCAAATTCAAGGCGGCCCGTGGGGTGGGGGGTCAGGAAAAACATGCGCCCCTGGCCGATCAGATCCTGGCTGGG
AATGCGGTGCGGGCGGGGGTCCGGGAGAAGCGGCGGGGTGCGGGACAGGAGAAGCGGAGGAAGAGTATGTGGGG
CCCCGGCTGAGCCGACGGATTTTGACGCAAGCACGGCAGCAACAGGAGGAACCTCGAGGCCGAGCATGGGACTGGG
GACAAGCCCGCGGCGCCGCGGGAACGCACCACGCGGCTGGGTCCAAGAATGCCTCAGGATGGATCAGATGACGAG
GACGAGGAGTGGCCACCCTGGAGAAGGCTGCCACAATGACAGCAGCGGGCCATCATGACAGAGGTGGTTGTGGAC
CCTGAGGATGAGCGTGCCATAGAGATGTTCATGAACAAGAACCCTCCTGCCAGGCGCACCCCTGGCTGACATCATC
ATGGAGAAGCTGACTGAGAAGCAGACAGAGGTTGAGACAGTCATGTCAGAGGTGTCGGGCTTCCCTATGCCCCAG
CTGGACCCCCGGGTCCTAGAAGGTACAGGGGGGTCCGGGAGGTATTATCTAAGTACCGCAGTGGAAAAC TGCCC
AAGGCATTTAAGATCATCCCTGCACTCTCCAAC TGGGAGCAAATCCTCTACGTCACAGAGCCGGAGGCCTGGACT
GCAGCTGCCATGTACCAGGCCACCAGGATTTTTGCCTCTAACCTGAAGGAACGCATGGCCCAGCGCTTCTACAAC
CTTGTCCTGCTCCCTCGAGTACGAGATGACGTTGCTGAATACAAACGACTCAACTTCCATCTCTACATGGCTCTC
AAGAAGGCCCTTTTCAAACCTGGAGCCTGGTTCAAAGGGATCCTGATTCCACTGTGCGAGTCTGGCACTTGTACC
CTCCGGGAAGCCATCATTGTGGGTAGCATCATCACCAAGTGCTCCATCCCTGTGTTGCACTCCAGTGCGGCCATG
CTGAAAATTGCTGAGATGGAATACAGCGGTGCCAACAGCATCTTCCTGCGACTGCTGCTGGATAAGAAGTATGCA
CTGCCTTACCGGGTGCTGGATGCCCTAGTCTTCCACTTCTGGGGTTCCGGACAGAGAAGCGTGAAC TGCCTGTG
CTGTGGCACCAGTGCCCTCCTGACTTTGGTCCAGCGCTACAAGGCCGACTTGGCCACAGACCAGAAAGAGGCCCTC
TTAGAACTGCTCCGGCTGCAGCCCCATCCACAGCTATCGCCCGAAATCAGGCGTGAGCTTCAGAGTGCAGTCCCC
CGCGATGTGGAAGATGTTCCCATCACCGTGGAGTAGAGAAAACAGTCAGCTGTCTTGCCAAAGGGGTTTGGAAG
GACACCAAGACCCCCGTTGGTGACTGAAGATGACACTGAGCTTTAATGGCTGAAGACCCAGATCAGGGCAGTGAC
AGATCACAGGGACATCTGTGGCTCCCAGTCCAGGACAGGAAGGACTGAGGGTCTGGCTGGTTCCTCTTCCATT
TAGGCCCTTATCCCTGTTTAGTTCTGAGAGCCAACTTGAGATACCATATGCTAGCATCCCAGTCCCCAGCTGGG
GCTTGGTGTGAGTACTTTTTCTATGGCTATTGTGTCAGGTCACTGTGGATAAAGGCAAAGACAGATATTTATTGA
AAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 331

MNKNPPARRTLADIIMEKLTEKQTEVETVMSEVSGFPMPQLDPRVLEVYRGVREVLISKYRSGKLPKAFKIIPALS
NWEQILYVTEPEAWTAAAMYQATRIFASNLKERMAQRFYNLVLLPRVRDDVAEYKRLNFHLYMALKKALFKPGAW
FKGILIPLCESGTCTLREAIIVGSIITKCSIPVLHSSAAMLKIAEMEYSGANSIFLRLLLDKKYALPYRVLDALV
FHFLGFRTEKRELPVLWHQCLLTIVQRYKADLATDQKEALLELLRLQPHPQLSPEIRRELQSAVPRDVEDVPITV
E

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FIGURE 332A

GTTGGCCCCGTTACTTTTCTCTGGGAAATATGGCGCACGCTGGGAGAACAGGGTACGATAACCGGGAGATAGT
GATGAAGTACATCCATTATAAGCTGTGCGAGAGGGGCTACGAGTGGGATGCGGGAGATGTGGGCGCCGCGCCCC
GGGGGCGCCCCCGCGCCGGGCATCTTCTCTCGCAGCCCGGGCACACGCCCCATACAGCCGCATCCCGGGACCC
GGTCGCCAGGACCTCGCCGCTGCAGACCCCGGCTGCCCCCGGCGCCGCCGCGGGGCTGCGCTCAGCCCGGTGCC
ACCTGTGGTCCACCTGACCCTCCGCCAGGCCGGCGACGACTTCTCCCGCCGCTACCGCCGCGACTTCGCCGAGAT
GTCCAGGCAGCTGCACCTGACGCCCTTACC CGCGCGGGGACGCTTTGCCACGGTGGTGGAGGAGCTCTTCAGGGA
CGGGGTGAACCTGGGGGAGGATTGTGGCCTTCTTTGAGTTCGGTGGGGTCATGTGTGTGGAGAGCGTCAACCGGGA
GATGTGCCCCCTGGTGGACAACATCGCCCTGTGGATGACTGAGTACCTGAACCGGCACCTGCACACCTGGATCCA
GGATAACGGAGGCTGGGATGCCCTTGTGGAACGTACGGCCCCAGCATGCGGCCTCTGTTTGATTCTCTCTGGCT
GTCTCTGAAGACTCTGCTCAGTTTGGCCCTGGTGGGAGCTTGCATCACCTGGGTGCCTATCTGGGCCACAAGTG
AAGTCAACATGCCTGCCCCAAACAAATATGCAAAAGGTTCACTAAAGCAGTAGAAATAATATGCATTGTGCTAGTGA
TGTTCCATGAAACAAAGCTGCAGGCTGTTTAAAGAAAAATAACACACATATAAACATCACACACACAGACAGACA
CACACACACACAACAATTAACAGTCTTCAGGCAAAACGTGCAATCAGCTATTTACTGCCAAAGGGAAATATCATT
TATTTTTTACATTATTAAGAAAAAAGATTTATTTATTTAAGACAGTCCCATCAAACCTCCTGTCTTTGGAAATC
CGACCACTAATTGCCAAGCACCCTTCGTGTGGCTCCACCTGGATGTTCTGTGCCTGTAAACATAGATTGCGTTT
CCATGTTGTTGGCCGATCACCATCTGAAGAGCAGACGGATGGAAAAAGGACCTGATCATTGGGGAAAGCTGGCTT
TCTGGCTGCTGGAGGCTGGGGAGAAGGTGTTCACTTGCATTTCTTTGCCCTGGGGGCTGTGATATTAACAG
AGGGAGGGTTCTGTGGGGGAAGTCCATGCCTCCCTGGCCTGAAGAAGAGACTCTTTGCATATGACTCACATGA
TGCATACCTGGTGGGAGGAAAAGAGTTGGGAACCTCAGATGGACCTAGTACCCACTGAGATTTCCACGCCGAAGG
ACAGCGATGGGAAAAATGCCCTTAAATCATAGGAAAGTATTTTTTTAAGCTACCAATTGTGCCGAGAAAAGCATT
TTAGCAATTTATACAATATCATCCAGTACCTTAAGCCCTGATTGTGTATATTTCATATATTTTGGATACGCACCCC
CCAACCTCCAATACTGGCTCTGTCTGAGTAAGAAACAGAATCCTCTGGAACCTGAGGAAGTGAACATTTCCGTGA
CTTCCGCATCAGGAAGGCTAGAGTTACCCAGAGCATCAGGCCGCCACAAGTGCCTGCTTTTAGGAGACCGAAGTC
CGCAGAACCTGCCTGTGTCCCAGCTTGGAGGCCTGGTCTGGAACCTGAGCCGGGGCCCTCACTGGCCTCCTCCAG
GGATGATCAACAGGGCAGTGTGGTCTCCGAATGTCTGGAAGCTGATGGAGCTCAGAATCCACTGTCAAGAAAGA
GCAGTAGAGGGGTGTGGCTGGGCCTGTACCCTGGGGCCCTCCAGGTAGGCCCGTTTTTCAGTGGAGCATGGGAG
CCACGACCCCTTCTTAAGACATGTATCACTGTAGAGGGAAGGAACAGAGGCCCTGGGCCCTTCCTATCAGAAGGAC
ATGGTGAAGGCTGGGAACGTGAGGAGAGGCAATGGCCACGGCCCATTTTGGCTGTAGCACATGGCACGTTGGCTG
TGTGGCCTTGGCCACCTGTGAGTTTAAAGCAAGGCTTTAAATGACTTTGGAGAGGGTCACAAATCCTAAAAGAA
GCATTGAAGTGAGGTGTGATGATTAATTGACCCTGTCTATGGAATTACATGTAAACATTATCTTGTCACTGT
AGTTTGGTTTTATTTGAAAACCTGACAAAAAAAAGTTCCAGGTGTGGAATATGGGGGTTATCTGTACATCCTGG
GGCATTAAAAAAAATCAATGGTGGGGAACATAAAGAAGTAACAAAAGAAGTGACATCTTCAGCAAATAAACT
AGGAAATTTTTTTTCTTCCAGTTTAGAATCAGCCTTGAAACATTGATGGAATAACTCTGTGGCATTATTGCATT
ATATACCATTTATCTGTATTAACCTTTGGAATGTACTCTGTTCAATGTTTAAATGCTGTGGTTGATATTTCGAAAGC
TGCTTTAAAAAATACATGCATCTCAGCGTTTTTTTGTTTTTTAATTGTATTTAGTTATGGCCTATACACTATTTG
TGAGCAAAGGTGATCGTTTTCTGTTTGAGATTTTATCTCTTGATTCTTCAAAGCATTCTGAGAAGGTGAGATA
AGCCCTGAGTCTCAGCTACCTAAGAAAAACCTGGATGTCACTGGCCACTGAGGAGCTTTGTTTCAACCAAGTCAT
GTGCATTTCCACGTCAACAGAATTGTTTATTGTGACAGTTATATCTGTTGTCCCTTTGACCTTGTTTCTTGAAGG
TTTCTCGTCCCTGGGCAATTCCGCATTTAATTCATGGTATTCAGGATTACATGCATGTTTGGTTAAACCCATGA
GATTCATTGAGTTAAAAATCCAGATGGCAAATGACCAGCAGATTCAAATCTATGGTGGTTTGACCTTTAGAGAGT
TGCTTTACGTGGCCTGTTTCAACACAGACCCACCCAGAGCCCTCCTGCCCTCCTTCCGCGGGGGCTTTCTCATGG
CTGTCTTCAGGGTCTTCTGAAATGCAGTGGTGTACGCTCCACCAAGAAAGCAGGAAACCTGTGGTATGAAG
CCAGACCTCCCCGGCGGGCCTCAGGGAACAGAATGATCAGACCTTTGAATGATTCTAATTTTTAAGCAAAATATT
ATTTTATGAAAGGTTTACATTGTCAAAGTGATGAATATGGAATATCCAATCCTGTGCTGCTATCCTGCCAAAATC
ATTTTAATGGAGTCAGTTTGCAGTATGCTCCACGTGGTAAGATCCTCCAAGCTGCTTTAGAAGTAACAATGAAGA
ACGTGGACGCTTTTAAATATAAAGCCTGTTTTGTCTTCTGTTGTTGTTCAAACGGGATTACAGAGTATTTGAAAA
ATGTATATATATTAAGAGGTCACGGGGGCTAATTGCTGGCTGGCTGCCTTTTGCTGTGGGGTTTTGTTACCTGGT
TTTAATAACAGTAAATGTGCCCAGCCTCTTGGCCCCAGAAGTGTACAGTATTGTGGCTGCACTTGCTCTAAGAGT

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FIGURE 332B

AGTTGATGTTGCATTTTCCTTATTGTTAAAAACATGTTAGAAGCAATGAATGTATATAAAAAGCCTCAACTAGTCA
TTTTTTTCTCCTCTTCTTTTTTTTTCATTATATCTAATTATTTTGCAGTTGGGCAACAGAGAACCATCCCTATTTT
GTATTGAAGAGGGATTACATCTGCATCTTAACTGCTCTTTATGAATGAAAAACAGTCCTCTGTATGTACTCCT
CTTTACACTGGCCAGGGTCAGAGTTAAATAGAGTATATGCACCTTTCCAAATTGGGGACAAGGGCTCTAAAAAAG
CCCCAAAAGGAGAAGAACATCTGAGAACCTCCTCGGCCCTCCCAGTCCCTCGCTGCACAAATACTCCGCAAGAGA
GGCCAGAATGACAGCTGACAGGGTCTATGGCCATCGGGTCGTCTCCGAAGATTTGGCAGGGGCAGAAAACCTCTGG
CAGGCTTAAGATTTGGAATAAAGTCACAGAATCAAGGAAGCACCTCAATTTAGTTCAAACAAGACGCCAACATTCT
TCTCCACAGCTCACTTACCTCTCTGTGTTTCTAGATGTGGCCTTCCATTTATATGTGATCTTTGTTTTATTAGTAAA
TGCTTATCATCTAAAGATGTAGCTCTGGCCCAGTGGGAAAAATTAGGAAGTGATTATAAATCGAGAGGAGTTATA
ATAATCAAGATTAAATGTAAATAATCAGGGCAATCCCAACACATGTCTAGCTTTCACCTCCAGGATCTATTGAGT
GAACAGAATTGCAATAGTCTCTATTTGTAATTGAACCTATCTTAAACAAATAGTTTATAAATGTGAACCTTAA
CTCTAATTAATTCCAACCTGTACTTTTAAAGGCAGTGGCTGTTTTAGACTTTCTTATCACTTATAGTTAGTAATGT
ACACCTACTCTATCAGAGAAAAACAGGAAAGGCTCGAAATACAAGCCATTCTAAGGAAATTAGGGAGTCAGTTGA
AATTCTATTCTGATCTTATTCTGTGGTGTCTTTTGCAGCCCAGACAAATGTGGTTACACACTTTTTAAGAAATAC
AATTCTACATTGTCAAGCTTATGAAGGTTCCAATCAGATCTTTATTGTTATTCAATTTGGATCTTTTCAGGGATTT
TTTTTTTAAATTATTATGGGACAAAGGACATTTGTTGGAGGGGTGGGAGGGAGGAACAATTTTTAAATATAAAAC
ATTCCCAAGTTTGGATCAGGGAGTTGGAAGTTTTTCTAGAATAACCAGAACTAAGGGTATGAAGGACCTGTATTGGG
GTCGATGTGATGCCTCTGCGAAGAACCTTGTGTGACAAATGAGAAACATTTTGAAGTTTGTGGTACGACCTTTAG
ATTCCAGAGACATCAGCATGGCTCAAAGTGCAGCTCCGTTTGGCAGTGCAATGGTATAAATTTCAAGCTGGATAT
GTCTAATGGGTATTTAAACAATAAATGTGCAGTTTTTAACTAACAGGATATTTAATGACAACCTTCTGGTTGGTAG
GGACATCTGTTTCTAAATGTTTATTATGTACAATACAGAAAAAATTTTATAAATTAAGCAATGTGAACTGAA
TTGGAGAGTGATAATACAAGTCCTTTAGTCTTACCCAGTGAATCATTCTGTTCCATGTCTTTGGACAACCATGAC
CTTGGACAATCATGAAATATGCATCTCACTGGATGCAAAGAAAATCAGATGGAGCATGAATGGTACTGTACCGGT
TCATCTGGACTGCCCCAGAAAAATAACTTCAAGCAAACATCCTATCAACAACAAGGTTGTTCTGCATACCAAGCT
GAGCACAGAAGATGGGAACACTGGTGGAGGATGGAAAGGCTCGCTCAATCAAGAAAATTCTGAGACTATTAATAA
ATAAGACTGTAGTGTAGATACTGAGTAAATCCATGCACCTAAACCTTTTGGAAAATCTGCCGTGGGCCCTCCAGA
TAGCTCATTTCATTAAGTTTTTCCCTCCAAGGTAGAATTTGCAAGAGTGACAGTGGATTGCATTTCTTTTGGGGA
AGCTTTCTTTTGGTGGTTTTGTTTTATTATACCTTCTTAAGTTTTCAACCAAGGTTTGCTTTTGTGTTTGGATTACT
GGGGTTATTTTTGTTTTAAATAAAAATAAGTGTACAATAAGTGTGTTTGTATTGAAAGCTTTTGTATCAAGATT
TTCATACTTTTACCTTCCATGGCTCTTTTTAAGATTGATACTTTTAAAGAGGTGGCTGATATTCTGCAACACTGTA
CACATAAAAAATACGGTAAGGATACTTTACATGGTTAAGGTAAAGTAAGTCTCCAGTTGGCCACCATTAGCTATA
ATGGCACTTTGTTTGTGTTGTTGGAAAAAGTCAATTGCCATTAACTTTCCTTGTCTGTCTAGTTAATATTGTG
AAGAAAAATAAAGTACAGTGTGAGATACTG

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FIGURE 333

MAHAGRTGYDNREIVMKYIHYKLSQRGYEWDAAGDVGAAPPGAAPAGIFSSQPGHTPHPAASRDPVARTSPLQTP
AAPGAAAGPALSPVPPVVHLALRQAGDDFSRRYRGDFAEMSSQLHLTPFTARGRFATVVEELFRDGVNWGRIVAF
FEFGGVMCVESVNREMSPLVDNIALWMTEYLNRLHTWIQDNGGWVGASGDVSLG

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FIGURE 334

GAGTGA CTCCACCGCCCGGAGCAGCGGTGCAGGACGCGCGTCTCCGCCGCCCGCGGTGACTTCTGCCTGCGCTCC
TTCTCTGAACGCTCACTTCCGAGGAGACGCCGACG**ATGA**AAGACACCGTGGAAGGTTCTTCTGGGACTGCTGGGTG
CTGCTGCGCTTGTCAACATCATCACCGTGCCCGTGGTTCTGCTGAACAAAGGCACAGATGATGCTACAGCTGACA
GTCGCAAACTTACACTCTAACTGATTACTTAAAAATACTTATAGACTGAAGTTATACTCCTTAAGATGGATTT
CAGATCATGAATATCTCTACAAACAAGAAAATAATATCTTGGTATTCAATGCTGAATATGGAAACAGCTCAGTTT
TCTTGGAGAACAGTACATTTGATGAGTTTGGACATTCTATCAATGATTATTCAATATCTCCTGATGGGCAGTTTA
TTCTCTTAGAATACAACACTACGTGAAGCAATGGAGGCATTCTACACAGCTTCATATGACATTTATGATTTAAATA
AAAGGCAGCTGATTACAGAAGAGAGGATTCCAAACAACACACAGTGGGTCACATGGTCACCAGTGGGTCATAAAT
TGGCATATGTTTGGAAACAATGACATTTATGTTAAAATTGAACCAAATTTACCAAGTTACAGAATCATATGGACGG
GGAAAGAAGATATAATATATAATGGAATAACTGACTGGGTTTATGAAGAGGAAGTCTTCAGTGCCTACTCTGCTC
TGTGGTGGTCTCCAAACGGCACATTTTTTAGCATATGCCCAATTTAACGACACAGAAGTCCCACTTATTGAATACT
CCTTCTACTCTGATGAGTCACTGCAGTACCCAAAGACTGTACGGGTTCCATATCCAAAGGCAGGAGCTGTGAATC
CAACTGTAAAGTTCTTTGTTGTAAATACAGACTCTCTCAGCTCAGTCACCAATGCAACTTCCATACAAATCACTG
CTCCTGCTTCTATGTTGATAGGGGATCACTACTTGTGTGATGTGACATGGGCAACACAAGAAAGATTTCTTTGC
AGTGGCTCAGGAGGATTACAGAACTATTCGGTCATGGATATTTGTGACTATGATGAATCCAGTGGAAAGATGGAAC
GCTTAGTGGCACGGCAACACATTGAAATGAGTACTACTGGCTGGGTTGGAAGATTTAGGCCTTCAGAACCTCATT
TTACCCCTTGATGGTAATAGCTTCTACAAGATCATCAGCAATGAAGAAGGTTACAGACACATTTGCTATTTCCAAA
TAGATAAAAAAGACTGCACATTTATTACAAAAGGCACCTGGGAAGTCATCGGGATAGAAGCTCTAACCACTGATT
ATCTATACTACATTAGTAATGAATATAAAGGAATGCCAGGAGGAAGGAATCTTTATAAAATCCAACCTTAGTGACT
ATACAAAAGTGACATGCCTCAGTTGTGAGCTGAATCCGGAAAGGTGTCAGTACTATTCTGTGTCATTTCAGTAAAG
AGGGCAAGTATTATCAGCTGAGATGTTCCGGTCTGGTCTGCCCTCTATACTCTACACAGCAGCGTGAATGATA
AAGGGCTGAGAGTCCTGGAAGACAATTCAGCTTTGGATAAAATGCTGCAGAATGTCCAGATGCCCTCCAAAAAAC
TGGACTTCATTATTTTGAATGAAACAAAATTTTGGTATCAGATGATCTTGCCTCCTCATTTTGATAAATCCAAGA
AATATCCTCTACTATTAGATGTGTATGCAGGCCCATGTAGTCAAAAAGCAGACACTGTCTTCAGACTGAACTGGG
CCACTTACCTTGCAAGCACAGAAAACATTATAGTAGCTAGCTTTGATGGCAGAGGAAGTGGTTACCAAGGAGATA
AGATCATGCATGCAATCAACAGAAGACTGGGAACATTTGAAGTTGAAGATCAAATTGAAGCAGCCAGACAATTTT
CAAAAATGGGATTTGTGGACAACAACGAATTGCAATTTGGGGCTGGTCATATGGAGGGTACGTAACCTCAATGG
TCCTGGGATCGGGAAGTGGCGTGTTCAGTGTGGAATAGCCGTGGCGCCTGTATCCCGGTGGGAGTACTATGACT
CAGTGTACACAGAACGTTACATGGGTCTCCCAACTCCAGAAGACAACCTTGACCATTACAGAAATTCACAGTCA
TGAGCAGAGCTGAAAATTTTAAACAAGTTGAGTACCTCCTTATTCATGGAACAGCAGATGATAACGTTCACTTTC
AGCAGTCAGCTCAGATCTCCAAAGCCCTGGTCGATGTTGGAGTGGATTTCCAGGCAATGTGGTATACTGATGAAG
ACCATGGAATAGCTAGCAGCACAGCACACCAACATATATATACCCACATGAGCCACTTCATAAAACAATGTTTCT
CTTTACCT**TAG**CACCTCAAAATACCATGCCATTTAAAGCTTATTAAAACTCATTTTTGTTTTTATTATCTCAAAA
CTGCACTGTCAAGATGATGATGATCTTTAAATAACACTCAAAATCAAGAACTTAAGGTTACCTTTGTTCCCAA
ATTTATACCTATCATCTTAAAGTAGGGACTTCTGTCTTCACAACAGATTATTACCTTACAGAAGTTTGAATTATC
CGGTCGGGTTTTATTGTTTTAAATCATTTCTGCATCAGCTGCTGAAACAACAAATAGGAATTGTTTTTATGGAGG
CTTTGCATAGATTCCCTGAGCAGGATTTTAACTTTTTCTAACTGGACTGGTTCAAATGTTGTTCTCTCTTTAA
AGGGATGGCAAGATGTGGGCAGTGATGTCACTAGGGCAGGGACAGGATAAGAGGGATTAGGGAGAGAAGATAGCA
GGGCATGGCTGGGAACCAAGTCCAAGCATACCAACACGAGCAGGCTACTGTCAGCTCCCCTCGGAGAAGAGCTG
TTCACAGCCAGACTGGCACAGTTTTCTGAGAAAGACTATTCAAACAGTCTCAGGAAATCAAATATGCAAAGCACT
GACTTCTAAGTAAAACCACAGCAGTTGAAAAGACTCCAAAGAAATGTAAGGGAACTGCCAGCAACGCAGGCCCC
CAGGTGCCAGTTATGGCTATAGGTGCTACAAAAACACAGCAAGGGTGATGGGAAAGCATTGTAAATGTGCTTTTA
AAAAAAATACTGATGTTTCTAGTGAAAGAGGCAGCTTGAACTGAGATGTGAACACATCAGCTTGCCCTGTAA
AAGATGAAAATATTTGTATCACAATCTTAACTTGAAGGAGTCCTGTCATCAATTTTTCTTATTTTCAATTTCTTG
AGTGTCTTAATTAAGAATATTTTAACTTCCTTGACTCATTTTAAAAATGGAACATAAAATACAATGTTATG
TATTATTATCCCATTTCTACATACTATGGAATTTCTCCAGTCATTTAATAAATGTGCCTTCATTTTTTC

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FIGURE 335

MKTPWKVLLGLLGAAALVTIIITVPVLLNKGTDDATADSRKTYTLTDYLNKTYRLKLYSLRWISDHEYLYKQENN
ILVFNAEYGNSSVFLENSTFDEFGHSINDYSISPDGQFILLEYNVVKQWRHSYTASYDIYDLNKRQLITEERIPN
NTQWVTWSPVGHKLAYVWNNDIYVKIEPNLPSYRITWTGKEDIIYNGITDWVYEEEEVFSAYSALWWSPNGTFLAY
AQFNDTEVPLIEYSFYSDSLQYPKTVRVPYPKAGAVNPTVKFFVNTDSLSSVTNATSIQITAPASMLIGDHYL
CDVTWATQERISLQWLRRIQNYSVMDICDYDESSGRWNCLVARQHIEMSTTGWVGRFRPSEPHFTLDGNSFYKII
SNEEGYRHICYFQIDKKDCTFITKGTWEVIGIEALTSDYLYYISNEYKGMPPGGRNLYKIQLSDYTKVTCLSCELN
PERCQYYSVSFSKEAKYYQLRCSGPGPLPLYTLHSSVNDKGLRVLEDNSALDKMLQNVQMP SKKLDFFIILNETKFW
YQMILPPHFDKSKKYPLLLDVYAGPCSQKADTVFRLNWATYLASTENIIVASFDRGSGYQGDKIMHAINRRLGT
FEVEDQIEAARQFSKMGFVDNKRIAIWGSYGGYVTSMVLGSGSGVFKCGIAPVSRWEYYDSVYTERYMGLPT
PEDNLDHYRNSTVMSRAENFKQVEYLLIHGTADDNVHFQQSAQISKALVDVGVDQAMWYTDEDHGIASSTAHQH
IYTHMSHF IKQCFSLP

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FIGURE 336

CGCGCGTCTCCGCCGCCCGCTGACTTCTGCCTGCGCTCCTTCTCTGAACGCTCACTTCCGAGGAGACGCCGACG
ATGAAAGACACCGTGGAAGATTCTTCTGGGACTGCTGGGTGCTGCTGCGCTTGTCACCATCATCACCGTGCCCGTG
GTTCTGCTGAACAAAGGCACAGATGATGCTACAGCTGACAGTCGCAAAACTTACACTCTAACTGATTACTTAAAA
AATACTTATAGACTGAAGTTATACTCCTTAAGATGGATTTCAGATCATGAATATCTCTACAAACAAGAAAATAAT
ATCTTGGTATTCAATGCTGAATATGGAAACAGCTCAGTTTTCTTGAGAACAGTACATTTGATGAGTTTGGACAT
TCTATCAATGATTATTCAATATCTCCTGATGGGCAGTTTTATTCTCTTAGAATACAACACTACGTGAAGCAATGGAGG
CATTCCCTACACAGCTTCATATGACATTTATGATTTAAATAAAAGGCAGCTGATTACAGAAGAGAGGATTCCAAAC
AACACACAGTGGGTCACATGGTCACCAGTGGGTCATAAATTGGCATATGTTTGAACAATGACATTTATGTTAAA
ATTGAACCAAATTTACCAAGTTACAGAATCACATGGACGGGGAAAGAAGATATAATATATAATGGAATAACTGAC
TGGGTTTATGAAGAGGAAGTCTTCAGTGCCTACTCTGCTCTGTGGTGGTCTCCAAACGGCACTTTTTTAGCATAT
GCCCAATTTAACGACACAGAAGTCCCACTTATTGAATACTCCTTCTACTCTGATGAGTCACTGCAGTACCCAAAG
ACTGTACGGGTTCCATATCCAAAGGCAGGAGCTGTGAATCCAACTGTAAAGTTCTTTGTTGTAAATACAGACTCT
CTCAGCTCAGTCACCAATGCAACTTCCATACAAATCACTGCTCCTGCTTCTATGTTGATAGGGGATCACTACTTG
TGTGATGTGACATGGGCAACACAAGAAAGATTTCTTTGCAGTGGCTCAGGAGGATTACAGAACTATTCCGGTCATG
GATATTTGTGACTATGATGAATCCAGTGGAAAGATGGAAGTCTTAGTGGCACGGCAACACATTGAAATGAGTACT
ACTGGCTGGGTTGGAAGATTTAGGCCTTCAGAACCTCATTTTACCCTTGATGGTAATAGCTTCTACAAGATCATC
AGCAATGAAGAAGGTTACAGACACATTTGCTATTTCCAAATAGATAAAAAAGACTGCACATTTATTACAAAAGGC
ACCTGGGAAGTCATCGGGATAGAAGCTCTAACAGTGATTATCTATACTACATTAGTAATGAATATAAAGGAATG
CCAGGAGGAAGGAATCTTTATAAAATCCAACCTATTGACTATACAAAAGTGACATGCCTCAGTTGTGAGCTGAAT
CCGGAAAGGTGTCAGTACTATTCTGTGTCATTACAGTAAAGAGGCGAAGTATTATCAGCTGAGATGTTCCGGTCTCT
GGTCTGCCCCCTCTATACTCTACACAGCAGCGTGAATGATAAAGGGCTGAGAGTCTTGAAGACAATTCAGCTTTG
GATAAAATGCTGCAGAATGTCCAGATGCCCTCCAAAAACTGGACTTCATTATTTTGAATGAAACAAAATTTTGG
TATCAGATGATCTTGCCCTCCTCATTTTGATAAATCCAAGAAATATCCTCTACTATTAGATGTGTATGCAGGCCCA
TGTAAGTCAAAAAGCAGACACTGTCTTCAGACTGAACTGGGCCACTTACCTTGCAAGCACAGAAAACATTATAGTA
GCTAGCTTTGATGGCAGAGGAAGTGGTTACCAAGGAGATAAGATCATGCATGCAATCAACAGAAGACTGGGAACA
TTTGAAGTTGAAGATCAAATTGAAGCAGCCAGACAATTTTCAAAAATGGGATTTGTGGACAACAAACGAATTGCA
ATTTGGGGCTGGTCATATGGAGGGTACGTAACCTCAATGGTCTCGGGATCGGGAAGTGGCGTGTTCAGTGTGGA
ATAGCCGTGGCGCCTGTATCCCGGTGGGAGTACTATGACTCAGTGTACACAGAACGTTACATGGGTCTCCCAACT
CCAGAAGACAACCTTGACCATTACAGAAATTCAACAGTCATGAGCAGAGCTGAAAATTTTAAACAAGTTGAGTAC
CTCCTTATTATGGAACAGCAGATGATAACGTTCACTTTACAGCAGTCAGCTCAGATCTCCAAAGCCCTGGTTCGAT
GTTGGAGTGGATTTCCAGGCAATGTGGTATACTGATGAAGACCATGGAATAGCTAGCAGCACAGCACACCAACAT
ATATATACCCACATGAGCCACTTCATAAAACAATGTTTCTCTTTACCT**TAG**CACCTCAAATACCATGCCATTTA
AAGCTTATTAAACTCATTTTTGTTTTTATTATCTCAAAACTGCACTGTCAAGATGATGATGATCTTTAAATAC
ACACTCAAATCAAGAACTTAAGGTTACCTTTGTTCCCAAATTCATACCTATCATCTTAAGTAGGGACTTCTGT
CTTCACAACAGATTATTACCTTACAGAAGTTTGAATTATCCGGTCCGGTTTTATTGTTTAAATCATTTCTGCAT
CAGCTGCTGAAACAACAAATAGGAATTGTTTTTATGGAGGCTTTGCATAGATTCCCTGAGCAGGATTTTAATCTT
TTTCTAACTGGACTGGTTCAAATGTTGTTCTCTCTTTAAAGGGATGGCAAGATGTGGGCAGTGATGTCCTAGG
GCAGGGACAGGATAAGAGGGATTAGGGAGAGAAGATAGCAGGGCATGGCTGGGAACCAAGTCCAAGCATAACAA
CACGAGCAGGCTACTGTCAGCTCCCTCGGAGAAGAGCTGTTACCCACGAGACTGGCACAGTTTTCTGAGAAAGA
CTATTCAAACAGTCTCAGGAAATCAAATATCGAAAGCACTGACTTCTAAGTAAACCACAGCAGTTGAAAGACTCC
AAAGAAATGTAAGGGAACTGCCAGCAACGCAGCCCCAGGTGCCAGTTATGGCTATAGGTGCTACAAAAACACA
GCAAGGGTGATGGGAAAGCATTGTAAATGTGCTTTTAAAAAAAATACTGATGTTTCTAGTGAAAGAGGCAGCTT
GAAACTGAGATGTGAACACATCAGCTTGCCCTGTATAAAGATGAAAAATTTTGTATCACAATCTTAACTTGAAG
GAGTCTTGCATCAATTTTTCTTATTTTCAATTTCTTTGAGTGTCTTAATTAAAGAATATTTTAACTTCTTGGAC
TCATTTTAAAAAATGGAACATAAAATACAATGTTATGTATTATTATCCATTCTACATACTATGGAATTTCTCC
CAGTCATTTAATAAATGTGCCTTCATTTTTTC

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FIGURE 337

MKTPWKILLGLLGAAALVTIITVPVLLNKGTDATADSRKTYTLTDYLNKNTYRLKLYSLRWISDHEYLYKQENN
ILVFNAEYGNSSVFLENSTFDEFGHSINDYSISPDGQFILLEYNVVKQWRHSYTASYDIYDLNKRQLITEERIPN
NTQWVTWSPVGHKLAYVWNNDIYVKIEPNLPSYRITWTGKEDIYNGITDWVYEEEFVSAYSALWWSPNGTFLAY
AQFNDTEVPLIEYSFYSDSLQYPKTVRVPYPKAGAVNPTVKFFVNTDSLSSVTNATSIQITAPASMLIGDHYL
CDVTWATQERISLQWLRRIQNYSVMDICDYDESSGRWNCLVARQHIEMSTGWVGRFRPSEPHFTLDGNSFYKII
SNEEGYRHICYFQIDKKDCTFITKGTWEVIGIEALTSDYLYYISNEYKGMPPGGRNLYKIQILIDYTKVTCLSCELN
PERCQYYSVSFSKEAKYYQLRCSGPGLPLYTLHSSVNDKGLRVLEDNSALDKMLQNVQMPSKKLDFIILNETKFW
YQMILPPHFDKSKKYPLLLDVYAGPCSQKADTVFRLNWATYLASTENIIVASFDRGSGYQGDKIMHAINRRLGT
FEVEDQIEAARQFSKMGFVDNKRIAIWGSYGGYVTSMVLGSGGVFKCGIAVAPVSRWEYYDSVYTERYMGLPT
PEDNLDHYRNSTVMSRAENFKQVEYLLIHGTADDNVHFQQSAQISKALVDVGVDQAMWYTDDEHGIASSTAHQH
IYTHMSHFQKCFSLP

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FIGURE 338

AAGTGCTGCGAGCCCTGGGCCACGCTGGCCGTGCTGGCAGTGGGCCGCCTCGATCCCTCTGCAGTCTTTCCCTTG
 AGGCTCCAAGACCAGCAGGTGAGGCCTCGCGGCGCTGAAACCGTGAGGCCCGGACCACAGGCTCCAGATGGACCC
 TGGGAAGGACAAAGAGGGGGTGCCCCAGCCCTCAGGGCCGCCAGCAAGGAAGAAATTTGTGATACCCCTCGACGA
 GGATGAGTCCCTCCTGGAGTGGCCAAGCCCTTATTCCGATCTACACAGAGCCTTCCCCTGTGGACACCTCGGC
 CCAGGCGGCCCTCAGACCTACGCCGAATATGCCATCTCACAGCCTCTGGAAGGGGGCTGGGGCCACGTGCCCCAC
 AGGGTCAGAGCCCCCTGGCAGGAGAGACGCCCCAACCAGGCCCTGAAACCCGGGGCAAAATCCAACAGCATCATTGT
 GAGCCCTCGGCAGAGGGGCAATCCCGTACTGAAGTTCGTGCGCAACGTGCCCTGGGAATTTGGCGACGTAATTCC
 CGACTATGTGCTGGGCCAGAGCACCTGTGCCCTGTTCTCAGCCTCCGCTACCACAACCTGCACCCAGACTACAT
 CCATGGGCGGCTGCAGAGCCTGGGGAAGAACTTCGCCTTGCGGGTCCTGCTTGTCCAGGTGGATGTGAAAGATCC
 CCAGCAGGCCCTCAAGGAGCTGGCTAAGATGTGTATCCTGGCCGACTGCACATTGATCCTCGCCTGGAGCCCCGA
 GGAAGCTGGGCGGTACCTGGAGACCTACAAGGCCTATGAGCAGAAACCAGCGGACCTCCTGATGGAGAAGCTAGA
 GCAGGACTTCGTCTCCCGGGTGACTGAATGTCTGACCACCGTGAAGTCAGTCAACAAAACGGACAGTCAGACCCT
 CCTGACCACATTTGGATCTCTGGAACAGCTCATCGCCGCATCAAGAGAAGATCTGGCCTTATGCCCAGGCCTGGG
 CCTCAGAAAGCCCGGAGGCTGTTTGATGTCTGACGAGCCCTTCTTGAAAGTACCCTGATGACCCCAGCTGCC
 AAGGAAACCCCCAGTGTAATAATAAATCGTCCTCCCAGGCCAGGCTC

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FIGURE 339

MDPGKDKEGVPPQPSGPPARKKFVIPLDEDEVPPGVAKPLFRSTQSLPTVDTSAQAAPQTYAEYAI SQPLEGAGAT
CPTGSEPLAGETPNQALKPGAKSNSIIVSPRQRGNPVLKFVRNVPWEFGDVIPDYVLGQSTCALFLSLRYHNLHP
DYIHGRLQSLGKNFALRVLLVQVDVKDPQQALKELAKMCILADCTLILAWSPEEAGRYLETYKAYEQPADLLME
KLEQDFVSRVTECLTTVKSVNKTD SQTLLTTFGSLEQLIAASREDLALCPGLGPQKARRLFDVLHEPFLKVP

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FIGURE 340A

GCCAGCGATCAGAGCAGCGCTGGGTGTTTCAGGGGCCAAG**ATG**CGGCGCGCCGGGGACGGAGAGACGGAGTCGCG
CCGCCCCCGAGTGGGGGCCCCGGTCCGGACCCTGGCGGGGAGCCCGCGGCAGTGTTGGCGAAGTCGAAGCCAA
GCGCCGTATGGGACTTTGGGCGCTGTGAGCGGCGGCGAGCAGGTGCTGCTGCATGAGGAGGCGGGTGATTCTGGC
TTTGTCACTCTCTCTCGGCAGGGCCCCATCTCTGAGGGACAAGGACCTGGAAATGGAGGAGCTAATGCTGCAGGAT
GAGACACTGCTGGGGACCATGCAGAGCTACATGGATGCCTCCCTTATCTCCCTCATTGAGGATTTTGGGAGCCTT
GGAGAGAGCAGGTTATCTCTGGAGGACCACAATGAAGTGTGCTGCTCACGGCTCTGACGGAGATCTTGGACAAT
GCAGATTCTGAGAACCCTTTCTCCATTTGACAGCATTCTGATTTCGGAGCTGCTTGTGTACCCCGGGAGGGCTCC
TCTCTGCACAAGCTGCTTACTCTCTCTCGGACACCCCCAGAACGTGACCTCATCACCCAGTTGACCCACTGGGG
CCAGTACGGGCAGCAGTAGAGGGAGTGGGGTTGAAATGTCTCTTCCAGATCCCTCTTGGGACTTCTCCCCACCC
TCTTTCTTAGAGACCTCTTCCCCAAGCTTCCCTAGCTGGAGACCCCCAAGATCAAGACCACGCTGGGGCCAATCC
CCACCTCCCCAGCAGCGCAGTGATGGAGAAGAAGAGGAGGAGGTGGCCAGCTTCAGTGCCAGATTCTTGCCGGG
GAGCTTGACAACCTGTGTGAGCAGTATCCCGGACTTCCCCATGCATTTCGCTGCCCTGAGGAGGAAGATAAAGCA
ACAGCAGCAGAGATGGCAGTGCCAGCAGCTGGTGATGAGAGCATCTCCTCCCTGAGTGAGCTGGTGCGGGCCATG
CACCCATACTGCCTGCCCCAACCTCACCCACCTGGCATCACTTGAGGATGAGCTTCAGGAGCAGCCAGATGATTG
ACACTGCCTGAGGGCTGCGTAGTGCTGGAGATTGTGGGGCAGGCAGCCACAGCTGGCGATGACCTGGAGATCCCA
GTTGTGGTGCGACAGGTCTCTCCTGGACCCCGGCTGTGCTCCTGGATGACTCGCTAGAGACTAGTTCTGCCTTG
CAGCTGCTTATGCCTACACTGGAGTCAGAGACAGAGGCTGCTGTGCCCAAGGTAACCCTCTGCTCTGAGAAAGAG
GGGTTGTCAATTGAACTCAGAGGAGAAGCTGGACTCAGCCTGCTTATTGAAGCCCAGGGAGGTCGTGGAGCCGGTG
GTGCCCAAGGAGCCTCAGAACCACCTGCCAATGCAGCACCAGGTTCCCAGAGAGCTCGAAAGGGCAGGAAGAAG
AAGAGCAAGGAGCAGCCAGCAGCCTGTGTGGAAGGCTATGCCAGGAGGCTGAGGTCATCTTCTCGCGGGCAGTCT
ACTGTAGGTACAGAAGTGACCTCTCAGGTAGACAACCTTGCAAGAACAGCCTCAGGAAGAAGCTTCAAAAAGAGTCT
GGGCCTCTCCAGGGTAAGGGGAAGCCCCGGGCTTGGGCTCGGGCCTGGGCAGCTGCCTTGGAGAATTCTAGCCCT
AAGAAGTTGGAGAGAAGTGCTGGACAAAGTAGTCTGCTAAAGAAGGCCCTCTAGACCTCTACCCAAAGCTGGCT
GACACTATCCAAACCAATCCTATACCAACCCATCTCTCATTGGTCGACTCTGCCAAGCCAGCCCCATGCCAGTT
GACTCTGTTGAAGCTGATCCCACTGCAGTTGGCCCTGTTCTAGCTGGCCCTGTACCTGTTGACCCTGGGTTGGTT
GACCTTGCTTCAACCAGCTCAGAACTGGTTGAGCCTCTCCCGGCTGAGCCAGTGCTGATCAACCCAGTCTGGCT
GACTCAGCAGCAGTTGACCCTGCAGTGTTCCCATCTCAGATAACTTGCCACCAGTTGATGCTGTCCCGTCTGGC
CCAGCACCAGTTGATCTAGCACTGGTTGACCCTGTTCTTAATGACCTGACTCCAGTTGACCAGTGCTAGTTAAG
TCCAGACCAACTGATCCCAAGCAGTGCTGAGTGTCATCAGCCCTGGGGGGTTCAGCACCCAGCTCCTCGTGAG
TCAGAGTCTTGGACCCACCAAGACCATCATCCCTGAAGTCAAAGAGGTTGTGGATTCTCTGAAAATTGAAAGT
GGTACCAGTGCTACAACCCATGAAGCCAGACCTCGGCCTCTCAGCTTATCTGAGTACCGGCGACGAAGGCAGCAA
CGCCAAGCAGAAACAGAAGAGAGAAGTCCACAGCCCCCAACTGGGAAGTGGCCTAGCCTTCCAGAGACTCCCACA
GGGCTGGCAGACATCCCTTGCTTGTGTCATCCCAAGCCCCAGCCAAGAAGACAGCTCTGCAGAGAAGCCCTGAA
ACACCCCTTGAGATTGTCCTTGTCCTGTAGGTCCAGCCCTGCTTCTCCTAGTCTGAGCCACCTGTAAGCAAA
CCTGTGGCCTCATCTCCCACTGAGCAGGTGCCATCCAGGAGATGCCACTGTTGGCGAGACCTTCCCTCCTGTG
CAGTCTGTGTCCCTGCTGTGCCACACCTCCCTCGATGTCTGCTGCCCTGCCTTTCCTGCAGGTGGGCTTGGC
ATGCCCCCAGTCTGCCCCACCTCCCTTGACAGCCTCCTAGTCTTCCATTGTCTATGGGGCCAGTACTACCTGAT
CCGTTTACTCACTATGCCCCCTTGCCATCCTGGCCTTGTTATCCTCATGTGTCCCTTCTGGCTATCCTTGCCCTG
CCCCCCCCACCAACGGTGCCCTAGTGTCTGGTACTCCTGGTGCCATGCGCTGCCTCCCACTTGACAGTGTGCCCT
TGGGCACCCCTCCTGCCCCAGTCTCACCTTACAGTTCCACATGTACCTATGGGCCCTTGGGATGGGGCCAGGG
CCTCAACATGCTCCATTCTGGTCTACTGTTCCCCACCTCCTTTGCCCTCCAGCCTCCATTGGGAGAGCTGTTCCC
CAACCTAAATGGAGTCTAGGGGCACTCCAGCTGGCCCTCCTGAAAATGTACTTCCCTTGTGATGGCTCCTCCC
CTCAGTCTTGGGCTACCTGGCCATGGAGCTCCTCAGACAGAGCCTACCAAGGTGGAGGTCAAGCCAGTGCCCTGCA
TCTCCCCATCCGAAACACAAGGTGTCTGCCCTGGTGCAAAGTCCCCAGATGAAGGCTCTAGCATGTGTGTCTGCT
GAAGGTGTGACTGTTGAGGAGCCTGCATCAGAGAGGCTAAAGCCTGAGACCCAAGAGACCAGGCCAGGGAGAAG
CCCCCTTGCCCTGCTACCAAGGCTGTTCCACACCAAGGCAGAGCACTGTCCCAAGCTGCCTGCTGTCCACCCA
GCCCCGTCTAAGGAAGCTGTCTTCTGCTACCCACGTAAGGTTCTGAAGATGTGGTACAGGCTTTCATC
AGTGAGATTGGAATTGAGGCATCGGACCTGTCCAGTCTGCTGGAGCAGTTTGAGAAATCAGAAGCCAAAAGGAG

FIGURE 340B

TGTCCTCCTCCGGCTCCTGCTGACAGCTTGGCTGTAGGAACTCAGGCGGCGTTGACATTCCCCAGGAGAAGAGG
CCCCTAGACCGGTTACAAGCCCCAGAACTGGCCAACGTGGCAGGGCTCACCCCTCCAGCTACCCCTCCCCACCAG
TTATGGAAGCCCCCTGGCTGCTGTCTCACTGCTGGCCAAAGCCAAATCTCCTAAGTCCACCGCCCAGGAGGGAACC
CTGAAGCCTGAAGGAGTTACGGAGGCCAAACATCCAGCTGCAGTTCGCCTCCAAGAAGGGGTCCATGGCCCTAGT
CGAGTCCATGTGGGCTCTGGGGACCATGACTATTGTGTCCGGAGCAGGACCCCCCAAAAAAGATGCCTGCCCTA
GTCATTCCAGAGGTGGGCTCCCGATGGAATGTCAAGCGCCATCAGGACATCACCATCAAACCTGTCTTGTCTTG
GGCCAGCTGCCCCCTCCGCCCCCATGCATAGCTGCCTCCCGGGAGCCGCTTGATCACAGGACTAGCAGTGAGCAG
GCAGATCCCTCAGCACCTGCCTTGCCCCATCCAGCTTGCTGTCCCTGAGGCCTCACCTGCCGGAATGACATG
AACACTAGGACTCCCCCTGAACCCTCAGCCAAGCAGCGGTCAATGCGCTGTTACCGAAAAGCCTGCAGGTCAGCC
AGCCCCCTCAAGCCAGGGCTGGCAGGGCCGCCGAGGCCGCAACAGCCGTTCTGTGAGCTCTGGGTCCAACCGGACT
AGCGAAGCATCTTCCTCATCCTCATCATCGTCTTCCTCATCCCGATCTCGGTCCAGGTCCCTCTCCCCCCCACAC
AAGAGGTGGCGAAGGTCCAGCTGTAGTTCTCTGGACGTTCTCGAAGATGCTCTTCCTCTTCTTCGTCATCATCT
TCCTCTTCGTCTTCCTCATCCTCATCATCCAGTTCTCGAAGCCGCTCACGATCCCCATCCCCCGCCGGAGAAGT
GACAGGAGGCGGCGGTACAGCTCTTATCGTTCACATGACCATTACCAAAGGCAAAGAGTGCTACAAAAGGAGCGT
GCAATAGAAGAAAGAAGGGTGGTCTTCATTGGAAAGATACCTGGCCGCATGACTCGATCAGAGCTGAAACAGAGG
TTCTCCGTTTTTGGAGAGATTGAGGAGTGACCATCCACTTCCGTGTCCAAGGGGACAACACGGCTTCGTCACT
TATCGCTATGCTGAGGAGGCATTTGCAGCCATTGAGAGTGGCCACAAGCTGCGGCAGGCAGATGAGCAGCCCTTT
GATCTCTGCTTTGGGGGCCGAAGGCAGTTCTGCAAGAGGAGCTATTCTGATCTTGACTCCAACCGGGAAGACTTT
GACCCAGCACCTGTAAAGAGCAAATTTGATTCTCTTGACTTTGACACATTGTTGAAACAGGCCCAGAAGAACCTC
AGGAGGTAACCTTGGGCCCTTCCCTGCTATCCTTTTTCTCCTTTGGAGGTGCCCAACCTCCTCCACCCCTTCCC
CTACTCTAGGGGAGAGAGCTGCTAGTGAGATGACTGTTTTATAAAGAAATGGAAAAAAGTGAAATAAAAAATATG
TTGAATCAGATTTTTTAAAAGGGTATTTGTTTTTTTATAACAGGTATTGAAACAAGTTAACTTGCAATTCCTATG
TAAGATAGGAGGGGCTGAGGGGATCCCCAGTGTGGAACATAAGTCACTATGCAGACTAATAAACATCAACTAG
AGAGAGAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 341

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FIGURE 342

CCGGAAGTGACTGCGGACGAATCGGCGTTTGCCGAGGCTGGCATAGATTGGCTGTCTCCGCTCATAGCTGCTTT
TGGCGCGAAAGATGCCGGGTCTGGTTGACTCAAACCCTGCCCCGCCTGAGTCTCAGGAGAAGAAGCCGCTGAAGC
CCTGCTGCGCTTGCCCGGAGACCAAGAAGGCGCGCATGCGTGTATCATCGAGAAAGGAGAAGAACA¹CTGTGGAC
ATCTAATTGAGGCCCAAGGAATGCATGAGAGCCCTAGGATTTAAAAATTGAATGGTGGTCTGCTGTGTGAAT
AAATAATTCCTGAAGAATGAAGAAGATTAAATTTGGGAGTTCTTTGACGAACTTTGATATGTGGAAAAAGTATTT
ATAATTTATTGTAAGAAGAAAGTAAAAATATTACTAGTGGAAGATCTTC

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FIGURE 343

MPGLVDSNPAPPESQEKKPLKPCACPETKKARDACII EKGEEHCGHLIEAHKECMRALGFKI

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FIGURE 344

ATCCAATACAGGAGTGACTTGGAACCTCATTCTATCACTATGAAAGAAAAGTGGTGTCTTTTCTCTTGGGCATC
ATCTTGCTGGTTCTGATTGGAGTGCAAGGAACCCAGTAGTGAGAAAGGGTCGCTGTTCTGTCATCAGCACCAAC
CAAGGGACTATCCACCTACAATCCTTGAAAGACCTTAAACAATTTGCCCAAGCCCTTCTGCGAGAAAATTGAA
ATCATTGCTACACTGAAGAATGGAGTTCAAACATGTCTAAACCCAGATTTCAGCAGATGTGAAGGAAGTATTGAA
AAGTGGGAGAAAACAGGTCAGCCAAAAGAAAAGCAAAAGAATGGGAAAAAACATCAAAAAAGAAAGTTCTGAAA
GTTGCAAAAATCTCAACGTTCTCGTCAAAAGAAGACTACATTAAGAGACCCTTCACCAATAAGTATTCTGTGTAA
AAATGTTCTATTTTAATTATACCGCTATCATTCCAAAGGAGGATGGCATATAATACAAAGGCTTATTAATTTGAC
TAGAAAATTTAAACATTACTCTGAAATTGTAAGTAAAGTTAGAAAAGTTGATTTTAAGAATCCAAACGTTAAGAA
TTGTTAAAGGCTATGATTGTCTTTGTTCTTCTACCACCCACCAGTTGAATTTTCATCATGCTTAAGGCCATGATTT
TAGCAATACCCATGTCTACACAGATGTTACCCCAACCACATCCCACTCACAACAGCTGCCTGGAAGAGCAGCCCT
AGGCTTCCACGTACTGCAGCCTCCAGAGAGTATCTGAGGCACATGTCAGCAAGTCCTAAGCCTGTTAGCATGCTG
GTGAGCCAAGCAGTTTGAATTTGAGCTGGACCTCACCAGCTGCTGTGGCCATCAACCTCTGTATTTGAATCAGC
CTACAGGCCTCACACACAATGTGTCTGAGAGATTATGCTGATTGTTATTGGGTATCACCCTGGAGATCACCAG
TGTGTGGCTTTTCTGAGCCTCCTTTCTGGCTTTTGAAGCCATGTGATTCCATCTTGCCCGCTCAGGCTGACCCTT
TATTTCTTTTTGTTCCCTTTGCTTTCATTCAAGTCAGCTCTTCTCCATCCTACCACAATGCAGTGCCTTTCTCT
CTCCAGTGCACCTGTCTATGCTCTGATTTATCTGAGTCAACTCCTTTCTCATCTTGTCCCAACACCCACAGA
AGTGCTTTCTTCTCCCAATTCATCTCACTCAGTCCAGCTTAGTTCAAGTCCTGCCTCTTAAATAAACCTTTTTG
GACACACAAATTATCTTAAACTCCTGTTTCACTTGGTTTCAGTACCACATGGGTGAACACTCAATGGTTAACTAA
TTCTTGGGTGTTTATCCTATCTCTCCAACCAGATTGTCAGCTCCTTGAGGGCAAGAGCCACAGTATATTTCCCTG
TTTCTTCCACAGTGCCTAATAATACTGTGGAAGTAGGTTTAAATAATTTTTTAATTGATGTTGTTATGGGCAGGA
TGGCAACCAGACCATTGTCTCAGAGCAGGTGCTGGCTCTTTCTGGCTACTCCATGTTGGCTAGCCTCTGGTAAAC
CTCTTACTTATTATCTTTCAGGACACTCACTACAGGGACCAGGGATGATGCAACATCCTTGTCTTTTTATGACAGG
ATGTTTGCTCAGCTTCTCCAACAATAAGAAGCACGTGGTAAACACTTGCGGATATTCTGGACTGTTTTTAAAAA
ATATACAGTTTACCGAAAATCATATAATCTTACAATGAAAAGGACTTTATAGATCAGCCAGTGACCAACCTTTTC
CCAACCATACAAAAATTCCTTTTCCCGAAGGAAAAGGGCTTTCTCAATAAGCCTCAGCTTTCTAAGATCTAACAA
GATAGCCACCGAGATCCTTATCGAACTCATTTTAGGCAAAATAGAGTTTATTGTCCGTTTACTTGTTTCAGAG
TTTGTATTGTGATTATCAATTACCACACCATCTCCCATGAAGAAAGGGAACGGTGAAGTACTAAGCGCTAGAGGA
AGCAGCCAAGTCGGTTAGTGGAAGCATGATTGGTGCCAGTTAGCCTCTGCAGGATGTGGAACCTCCTTCCAGG
GGAGGTTTCAGTGAATTGTGTAGGAGAGGTTGTCTGTGGCCAGAATTTAAACCTATACTCACTTTCCCAAATTGAA
TCACTGCTCACACTGCTGATGATTTAGAGTGCTGTCCGGTGGAGATCCCAACCGAACGTCTTATCTAATCATGAA
ACTCCCTAGTTTCTTTCATGTAACCTTCCCTGAAAAATCTAAGTGTTTCATAAATTTGAGAGTCTGTGACCCACTTA
CCTTGTCATCTCACAGGTAGACAGTATATACTAACAACCAAGACTACATATTGTCAGTACACACACGTTATAA
TCATTTATCATATATATACATACATGCATACACTCTCAAAGCAAATAATTTTTCACTTCAAAACAGTATTGACTT
GTATACCTTGTAATTTGAAATATTTTCTTTGTTAAATAGAAATGGTATCAATAAATAGACCATTAATCAG

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FIGURE 345

MKSGVLFLLGIILLVLIGVQGTPVVRKGRCSICSTNQGTIHLQSLKDLKQFAPSPSCEKIEIIATLKNGVQTCL
NPDSADVKELIKKEKQVSQKKKQKNGKKHQKKVLKVRKSQRSRQKKT

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FIGURE 346

GAGCGCGGCTGGAGTTTGTCTGCTGCCGCTGTGCAGTTTGTTCAGGGGCTTGTGGTGGTGAGTCCGAGAGGCTGCG
TGTGAGAGACGTGAGAAGGATCCTGCACTGAGGAGGTGGAAAGAAGAGGATTGCTCGAGGAGGCCTGGGGTCTGT
GAGGCAGCGGAGCTGGGTGAAGGCTGCGGGTTCCGGCGAGGCCTGAGCTGTGCTGTCGTCATGCCTCAAACCCGA
TCCCAGGCACAGGCTACAATCAGTTTTCCAAAAAGGAAGCTGTCTCGGGCATTGAACAAAGCTAAAACTCCAGT
GATGCCAAACTAGAACCAACAAATGTCCAAACCGTAACCTGTTCTCCTCGTGTAAGCCCTGCCTCTCAGCCCC
AGGAAACGTCTGGGCGATGACAACCTATGCAACACTCCCCATTTACCTCCTTGTCTCCACCAAAGCAAGGCAAG
AAAGAGAATGGTCCCCCTCACTCACATACACTTAAGGGACGAAGATTGGTATTTGACAATCAGCTGACAATTAAG
TCTCCTAGCAAAAAGAGAAGTAGCCAAAGTTACCAAAAACAAAATACTTTCTTCAGTTAGAAAAAGTCAAGAGATC
ACAACAAATTTCTGAGCAGAGATGTCCACTGAAGAAAGAATCTGCATGTGTGAGACTATTCAAGCAAGAAGGCACT
TGCTACCAGCAAGCAAAGCTGGTCTGAACACAGCTGTCCCAGATCGGCTGCCTGCCAGGGAAAGGGAGATGGAT
GTCATCAGGAATTTCTTGAGGGAACACATCTGTGGGAAAAAAGCTGGAAGCCTTTACCTTTCTGGTGCTCCTGGA
ACTGGAAAAACTGCCTGCTTAAGCCGGATTCTGCAAGACCTCAAGAAGGAAGTGAAGGCTTTAAACTATCATG
CTGAATTGCATGTCCTTGAGGACTGCCCAGGCTGTATTCCCAGCTATTGCTCAGGAGATTGTGAGGAAGAGGTA
TCCAGGCCAGCTGGGAAGGACATGATGAGGAAATTGGAAAAACATATGACTGCAGAGAAGGGCCCCATGATTGTG
TTGGTATTGGACGAGATGGATCAACTGGACAGCAAAGGCCAGGATGTATTGTACACGCTATTTGAATGGCCATGG
CTAAGCAATTCTCACTTGGTGCTGATTGGTATTGCTAATACCTGGATCTCACAGATAGAATTCTACCTAGGCTT
CAAGCTAGAGAAAAATGTAAGCCACAGCTGTTGAACTTCCCACCTTATACCAGAAATCAGATAGTCACTATTTTG
CAAGATCGACTTAATCAGGTATCTAGAGATCAGGTTCTGGACAATGCTGCAGTTCAATTCTGTGCCCCGAAAGTC
TCTGCTGTTTCAGGAGATGTTTCGAAAGCACTGGATGTTTGCAGGAGAGCTATTGAAATTGTAGAGTCAGATGTC
AAAAGCCAGACTATTCTCAAACCACTGTCTGAATGTAATCACCTTCTGAGCCTCTGATTCCCAAGAGGGTTGGT
CTTATTCACATATCCCAAGTCATCTCAGAAGTTGATGGTAACAGGATGACCTTGAGCCAAGAAGGAGCACAAAGAT
TCCTTCCCTCTTCAGCAGAAGATCTTGGTTTGCTCTTTGATGCTCTTGATCAGGCAGTTGAAAATCAAAGAGGTC
ACTCTGGGGAAGTTATATGAAGCCTACAGTAAAGTCTGTGCAACAGCAGGTGGCGGCTGTGGACCAGTCAGAG
TGTTTGTCACCTTCAGGGCTCTTGGAAGCCAGGGGCATTTTAGGATTAAAGAGAAACAAGGAAACCCGTTTGACA
AAGGTGTTTTTCAAGATTGAAGAGAAAGAAATAGAACATGCTCTGAAAGATAAAGCTTTAATTGGAAATATCTTA
GCTACTGGATTGCCTTAAATTCTTCTTACACCCACCCGAAAGTATTAGCTGGCATTAGAGAGCTACAGTC
TTCATTTTAGTGCTTTACACATTGCGGCCTGAAAACAAATATGACCTTTTTTACTTGAAGCCAATGAATTTAAT
CTATAGATTCTTTAATATTAGCACAGAATAATATCTTGGGTCTTACTATTTTTTACCCATAAAAGTGACCAGGTA
GACCTTTTTTAATTACATTCACTACTTCTACCACTTGTGTATCTCTAGCCAATGTGCTTGCAAGGTACAGATCT
GTGTAGAGGAATGTGTGTATATTTACCTCTTCGTTTGCTCAAACATGAGTGGGTATTTTTTTGTTTGTTTTTTT
GTTGTTGTTGTTTTTGAGGCGCGTCTCACCTGTTGCCAGGCTGGAGTGCAATGGCGCGTCTCTGCTCACTAC
AGCACCCGCTTCCAGGTTGAAGTGATTCTCTTGCTCAGCCTCCCGAGTAGCTGGGATTACAGGTGCCACCAC
CGCGCCAGCTAATTTTTTAATTTTTTAGTAGAGACAGGGTTTTACCATGTTGGCCAGGCTGGTCTTGAACCTCTG
ACCCTCAAGTGATCTGCCACCTTGGCCTCCCTAAGTGCTGGGATTATAGGCGTGAGCCACCATGCTCAGCCATT
AAGGTATTTTGTTAAGAACTTTAAGTTTAGGGTAAGAAGAATGAAAATGATCCAGAAAAATGCAAGCAAGTCCAC
ATGGAGATTGAGGAGACTGGTTAAAG

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FIGURE 347

MPQTRSQAQATISFPKRKLSRALNKAKNSSDAKLEPTNVQTVTCSPRVKALPLSPRKRLGDDNLCNTPHLPPCSP
PKQGKKENGPPHSHTLKGRRLVFDNQLTIKSPSKRELAKVHQNKILSSVRKSQEITTNSEQRCPLKKESACVRLF
KQEGTCYQQAQKLVNLTAVPDRLPAREREMDVIRNFLREHICGKKAGSLYLSGAPGTGKTACLSRILQDLKKELKG
FKTIMLNCMSLRTAQAVFPAIAQEICQEEVSRPAGKDMMRKLEKHMTAEKGPMIVLVLEMDQLDSKGQDVLYTL
FEWPWLSNSHLVLIGIANTLDTDRILPRLQAREKCKPQLLNFPYTRNQIVTILQDRLNQVSRDQVLDNAAVQF
CARKVSAVSGDVRKALDVCRRRAIEIVESDVKSQTILKPLSECKSPSEPLIPKRVGLIHISQVISEVDGNRMTLSQ
EGAQDSFPLQQKILVCSLMLLIRQLKIKEVTLGKLYEAYSKVCRKQQVAAVDQSECLSLSGLLEARGILGLKRNK
ETRLTKVFFKIEEKEIEHALKDKALIGNILATGLP

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FIGURE 348

GAGCGCGGCTGGAGTTTGCTGCTGCCGCTGTGCAGTTTGTTCAGGGGCTTGTTGGTGGTGAAGTCCGAGAGGCTGCG
TGTGAGAGACGTGAGAAGGATCCTGCACTGAGGAGGTGGAAAGAAGAGGATTGCTCGAGGAGGCCTGGGGTCTGT
GAGGCAGCGGAGCTGGGTGAAGGCTGCGGGTTCCGGCGAGGCCTGAGCTGTGCTGTCGTCATGCCTCAAACCCGA
TCCCAGGCACAGGCTACAATCAGTTTTCCAAAAAGGAAGCTGTCTCGGGCATTGAACAAAGCTAAAAACTCCAGT
GATGCCAAACTAGAACCAACAAATGTCCAAACCGTAACCTGTTCTCCTCGTGTAAGCCCTGCCTCTCAGCCCC
AGGAAACGTCTGGGCGATGACAACCTATGCAACACTCCCCATTTACCTCCTTGTTCTCCACCAAAGCAAGGCAAG
AAAGAGAATGGTCCCCCTCACTCACATACACTTAAGGGACGAAGATTGGTATTTGACAATCAGCTGACAATTAAG
TCTCCTAGCAAAAGAGAACTAGCCAAAGTTACCAAACAAAATACTTTCTTCAGTTAGAAAAAGTCAAGAGATC
ACAACAAATTCTGAGCAGAGATGTCCACTGAAGAAAGAATCTGCATGTGTGAGACTATTCAAGCAAGAAGGCACT
TGCTACCAGCAAGCAAAGCTGGTCTGAACACAGCTGTCCCAGATCGGCTGCCTGCCAGGGAAAGGGAGATGGAT
GTCATCAGGAATTTCTTGAGGGAACACATCTGTGGGAAAAAGCTGGAAGCCTTTACCTTTCTGGTGCTCCTGGA
ACTGAAAAAACTGCCTGCTTAAGCCGGATTCTGCAAGACCTCAAGAAGGAAGTGAAGGCTTTAAACTATCATG
CTGAATTGCATGTCCTTGAGGACTGCCAGGCTGTATTCCCAGCTATTGCTCAGGAGATTTGTCAGGAAGAGGTA
TCCAGGCCAGCTGGGAAGGACATGATGAGGAAATTGGAAAAACATATGACTGCAGAGAAGGGCCCCATGATTGTG
TTGGTATTGGACGAGATGGATCAACTGGACAGCAAAGGCCAGGATGTATTGTACACGCTATTTGAATGGCCATGG
CTAAGCAATTCTCACTTGGTGCTGATTGGTATTGCTAATACCCTGGATCTCACAGATAGAATTCTACCTAGGCTT
CAAGCTAGAGAAAAATGTAAGCCACAGCTGTTGAACTTTCCACCTTATACCAGAAATCAGATAGTCACTATTTTG
CAAGATCGACTTAATCAGGTATCTAGAGATCAGGTTCTGGACAATGCTGCAGTTCAATTCTGTGCCCGCAAAGTC
TCTGCTGTTTCAGGAGATGTTTCGCAAAGCACTGGATGTTTGCAAGGAGAGCTATTGAAATTGTAGAGTCAGATGTC
AAAAGCCAGACTATTCTCAAACCACTGTCTGAATGTAAATCACCTTCTGAGCCTCTGATTCCCAAGAGGGTTGGT
CTTATTACATATCCCAAGTCATCTCAGAAGTTGATGGTAACAGGATGACCTTGAGCCAAGAAGGAGCACAAGAT
TCCTTCCCTCTTCAGCAGAAGATCTTGGTTTGCTCTTTGATGCTCTTGATCAGGCAGTTGAAATCAAAGAGGTC
ACTCTGGGGAAGTTATATGAAGCCTACAGTAAAGTCTGTGCGAAACAGCAGGTGGCGGCTGTGGACCAGTCAGAG
TGTTTGTCACTTTCAGGGCTCTTGGAAGCCAGGGGCATTTTAGGATTAAAGAGAAACAAGGAACCCGTTTGACA
AAGGTGTTTTTCAAGATTGAAGAGAAAGAAATAGAACATGCTCTGAAAGATAAAGCTTTAATTGGAAATATCTTA
GCTACTGGATTGCCTTAAATTCTCTCTTACACCCACCCGAAAGTATTAGCTGGCATTTAGAGAGCTACAGTC
TTCATTTTAGTGCTTTACACATTCGGGCCTGAAAACAAATATGACCTTTTTTACTTGAAGCCAATGAATTTTAAT
CTATAGATTCTTTAATATTAGCACAGAATAATATCTTTGGGTCTTACTATTTTTACCCATAAAAGTGACCAGGTA
GACCCTTTTTAATTACATTCACTACTTCTACCCTTGTGTATCTCTAGCCAATGTGCTTGCAAGTGTACAGATCT
GTGTAGAGGAATGTGTGTATATTTACCTCTTCGTTTGCTCAAACATGAGTGGGTATTTTTTTGTTTGTTTTTTT
GTTGTTGTTGTTTTTGAGGCGCTCTCACCCTGTTGCCAGGCTGGAGTGCAATGGCGCGTTCTCTGCTCACTAC
AGCACCCGCTTCCCAGGTTGAAGTGATTCTCTTGCTCAGCCTCCCGAGTAGCTGGGATTACAGGTGCCACAC
CGCGCCAGCTAATTTTTTAATTTTTTAGTAGAGACAGGGTTTTACCATGTTGGCCAGGCTGGTCTTGAACCTCTG
ACCTCAAGTGATCTGCCACCTTGGCCTCCCTAAGTGCTGGGATTATAGGCGTGAGCCACCATGCTCAGCCATT
AAGGTATTTGTGAAGAACTTTAAGTTTAGGGTAAGAAGAATGAAAATGATCCAGAAAAATGCAAGCAAGTCCAC
ATGGAGATTTGGAGGACACTGGTTAAAG

FIGURE 349

MPQTRSQAQATISFPKRKLSRALNKAKNSSDAKLEPTNVQTVTCSPRVKALPLSPRKRLGDDNLCNTPHLPPCSP
PKQGKKENGPPHSHTLKGRRLVFDNQLTIKSPSKRELAKVHQNKILSSVRKSQEITTNSEQRCPLKKEACVRLF
KQEGTCYQQAKLVNTAVPDRLPAREREMDVIRNFLREHICGKKAGSLYLSGAPGTGKTACLSRILQDLKKELKG
FKTIMLNCMSLRTAQAVFPAIAQEICQEEVSRPAGKDMMRKLEKHMTAEKGPMIVLVLEMDQLDSKGQDVLYTL
FEWPWLSNSHLVLIGIANTLDLTDRLPRLQAREKCKPQLLNFPYTRNQIVTILQDRLNQVSRDQVLDNAAVQF
CARKVSAVSGDVRKALDVCRRAIEIVESDVKSQTIKPLSECKSPSEPLIPKRVGLIHISQVISEVDGNRMTLSQ
EGAQDSFPLQOKILVCSLMLLIRQLKIKEVTLGKLYEAYSKVCRKQQVAVDQSECLSLSGLLEARGILGLKRNK
ETRLTKVFFKIEEKEIEHALKDKALIGNILATGLP

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FIGURE 350

GGAGTGC GGGGCGCCCGGCCAGGGGAGCCGCCACAGCC**ATG**GATTGCAAAGATAGACCAGCTTTTCCAGTTAA
GAAGTTAATACAAGCCCGTCTGCCGTTTAAAGCGCTGAATCTTGTCCTCCAAAGGGGAAAGCCGATGACATGTCAGA
CGATCAGGGTACTTCTGTGCAAAGTAAAGCCCCGATTTAGAGGCCTCTTTGGACACCTTGAAAAACAAGTGTCA
TGTGGGTTCTGACATAGACTTTAGACCGAAACTTGTCAACGGGAAGGGTCCCTTAGATAACTTTTAAAGAAATAG
AATCGAAACCAGTATTGGCCAGAGCACAGTCATCATTGATTTGACAGAGGACTCGAATGAGCAGCCAGACAGTCT
TGTGGACCACAATAAACTAAATTCTGAAGCCTCTCCCTCCAGGGAGGCAATAAATGGCCAGCGAGAAGACACTGG
GGATCAGCAGGGGTTGTTGAAGGCCATTGAGAACGACAAGTTGGCATTTCCTGGAGAGACCCTTTCAGACATTCC
TTGCAAAACAGAGGAGGAGGGTGTGGCTGTGGAGGTGACAGGAGGAGAGGCGACTCCAGGAATGTTCCGCCACG
GAGCTGCCCCGAGCTGACGAGTGGCCCGAGAATGTGCCCCAGAAAGGAGCAGGACAGTTGGAGTGAAGCTGGGGG
CATCCTGTTCAAAGGGAAGGTGCCTATGGTGGTCTTGACAGGACATCTTGCTGTGAGACCACCGCAATCAAGTC
CCTTCCAGCCACACCCCAAGGCAAGAATGACCCCTGAGAGTGAGGTGCTGGAATCTTCCCCGAAGAAGACTC
TGTACTCAGCCATTCTGCCCTGAGCTCTCCCTCTTCCACCAGCTCGCCGAGGGGCGCCTGCTCCCCAAAGCA
GCACAGCAGTACCAGTCCCTTCCCCACCTCCACGCCCTCCGCAGAATAACTAAGAAATTCGTCAAAGGCTCTAC
AGAGAAGAACAAGCTCAGACTGCAAAGAGATCAGGAGCGTCTGGGCAAGCAGCTCAAGTTACGTGCAGAAAGGGA
AGAAAAGGAGAAAGCTGAAAGAGGAGGCCAAGCGGGCCAAGGAGGAGGCCAAGAAGAAGAAGGAGGAAGAGAAGGA
GCTTAAGGAAAAGGAGAGGCGGGAGAAGCGGGAGAAGGATGAGAAGGAGAAGGCGGAGAAGCAGCGGCTCAAGGA
GGAGCGGCGCAAGGAGAGACAGGAAGCCCTGGAGGCTAAACTTGAGGAAAAAGGAAAAAGGAAGAAGAGAAACG
GTTAAGAGAAGAAGAGAAGCGCATTAAAGCAGAGAAGGCCGAAATCACGAGGTTCTTCCAGAAACCAAAGACTCC
ACAGGCCCCCAAGACCCTGGCCGGCTCCTGTGGGAAGTTTGCCCCCTTTGAAATTAAAGAGCACATGGTCCTGGC
CCCTCGGCGTCGGACCGCTTTCCATCCAGACCTCTGCAGTCAGCTGGACCAGCTCCTCCAGCAGCAGAGCGGCGA
GTTCTCCTTCTTGAAAGACCTCAAAGGCCGGCAGCCCCCTGAGGTCCGGACCCACGCACGTTTCCACCCGGAATGC
AGATATTTTAAACAGTGATGTCGTCATCGTGAGCGTGGAAGGGCGACGGTGTTCAGAGAGGAGGAAGTTTGG
CAGGATGAAGCTCCTGCAGTTCTGTGAGAACCACGGCCTGCCTACTGGGGTACCTGGAATAAGAAGACGGCACT
CATCCGCGCGGAGACCCCTGGGCCCAGGACACGAAGCTCCTGGACTATGAGGTGGACAGTGATGAGGAGTGGGA
AGAAGAGGAGCCTGGGGAGTCCCTGTCCCACAGTGAGGGGGATGATGATGACGACATGGGAGAGGATGAAGATGA
GGACGATGGTTTCTTTGTGCCCCATGGGTACCTGTCTGAGGACGAAGGTGTGACAGAGGAGTGTGCCGACCCTGA
GAACCATAAGGTCCGCCAGAACTGAAGGCCAAGGAGTGGGACGAGTTCTGGCTAAGGGGAAGCGCTTTCGCGT
CCTGCAACCTGTGAAGATCGGCTGCGTGTGGGCGGCTGACAGAGACTGCGCAGGCGATGACCTGAAGGTACTGCA
GCAGTTCGCAGCCTGCTTCTTGAGACCCTGCCGGCCAGGAGGAGCAGACGCCCAAGGCCTCCAAGCGGGAGAG
GAGAGACGAGCAGATCCTGGCCCAGCTGCTGCCGCTCCTGCACGGCAATGTGAACGGGAGCAAGGTCAATCATCCG
GGAGTTCCAGGAGCACTGCCGCCGGGGACTGCTCAGCAACCACACCGGCAGCCCGCGGACGCCCTCCACCACCTA
CCTGCACACCCCCACCCCCAGCGAGGATGCCGCCATCCCCCTCTAAGTCCCGGCTCAAGCGGCTCATTTCCGAGAA
CTCAGTGTATGAGAAGCGGCCTGACTTCAGGATGTGCTGGTACGTGCACCCGCAGGTGCTACAGAGCTTCCAGCA
GGAGCACCTGCCCGTGCCGTGCCAGTGGAGCTATGTGACATCGGTGCCCTCGGCCCCCAAGAGGACAGTGGCAG
CGTCCCCCTCCACGGGGCCAGCCAGGGCACTCCCATCTCGCTGAAGAGGAAGTCAGCGGGCAGCATGTGCATCAC
CCAATTCATGAAGAAGCGCAGGCACGACGGCCAGATTGGTGCTGAAGACATGGACGGCTTCCAGGCAGACACGGA
GGAGGAGGAAGAGGAGGAGGGCGACTGTATGATCGTGATGTCCCGATGCTGTGGAGGTCCAAGCCCCGTGTGG
AGCCGCTTCCGAGCTGGGGGTGGTGTGGGGGTGGACACCGGCAAGGCCACCCTGACCGCAGCCCCACTGGGTGC
ATCC**TG**AGAGCAGGGGTGACGTATGTAGAACGCTTAGGGTGTCTCCCCACAGAGCAGATACTTGAACCGACTCA
ATTCTGTGTAAAGAGCACTTTGTCTGCTTCACGGACCTCCCCAAAGTGTGCAGAGTTCTATATAGGATGCTGG
ATTAGTTCCTTTGATATTTGTAAAAATTCCCCCAAGAGCCGCATATGAATCTGCCCTTTAATAAAGCATTATTGA
GATTGCTGGCCTATTGGGGAAGCTGCGGGCACAGGA

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FIGURE 351

MDCKDRPAFPVKKLIQARLPFKRLNLVPKGKADDMSDDQGTSVQSKSPDLEASLDTLENNCHVGSDIDFRPKLVN
GKGPLDNFLRNRIETSIGQSTVIIDLTEDSNEQPSLVDHKNLNSEASPSREAINGQREDTGDQQGLLKAIQNDK
LAFPGETLSDIPCKTEEEGVGCGGAGRRGDSQECSPRSCPELTSGPRMCPRKEQDSWSEAGGILFKGKVP MVVLQ
DILAVRPPQIKSLPATPQGKNMTPESVLESFPEEDSVLSHSSLSSPSSTSSPEGPPAPPKQHSSTSPFPTSTPL
RRITKKFVKGSTENKRLRLQRDQERLGQKLKRAEREEKEKLKEEAKRAKEEAKKKKEEEKELKEKERREKREKD
EKEKAQKQRLKEERRKERQEALAKLEEKRKKEEEKRLREEEKRIKAEKAEITRFFQKPKTPQAPKTLAGSCGKF
APFEIKEHMLAPRRRTAFHPDLCSQLDQLLQQQSSEFSFLKDLKGRQPLRSGPTHVSTRNADIFNSDVVIVERG
KGDGVPERRKFGRMKLLQFCENHRPAYWGTWNKKTALIRARDPWAQDTKLLDYEVDSEEWEEEEPGEESLHSEG
DDDDDMGEDEDEDDGFFVPHGYLSEDEGVTEECADPENHKVRQKLKAKEWDEFLAKGKRFRVLQPVKIGCVWAAD
RDCAGDDLKVLQQFAACFLETLPAAEQTPKASKRERRDEQILAQLLPLLHGNVNGSKVIREFQEHCRRLSN
HTGSPRTPSTTYLHTPTPSDAAIPSKSRLKRLISENSVYEKRPDFRMCWYVHPQVLQSFQEHLPVPCQWSYVT
SVPSAPKEDSGSVPSTGPSQGTPI SLKRKSAGSMCITQFMKKRRHDGQIGAEDMDGFQADTEEEEEEGDCMIVD
VPDAVEVQAPCGAASGAGGGVGVDTGKATLTASPLGAS

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FIGURE 352

GCAGTTCAGACCCCCACACCCATCAAAGAGCCGCTCCTCCCCCGCAGGCGCCTTCGCCGCCTCCCTCCCTT
CCTTTCCTTTCGCTCCTCTTCCGACCTGTCCACCCGGGAGGAAGGGAGCTGGAAAGGGGGCGGAAACCTCTCCC
CTCCAAAAGCACAACAAAAGTGTTCAGTGCAGGAGGAGCCGGGTTCGCCCTGCCGACAGCGGGGGGCTTTGTT
CCCCGCAGTTGTTTCTGCCCATTTGACCTGTGAGCTGCTGGGGAAACGCTGCTGTTGACCTTTGGTTGAAGTGC
TAAGGCGATTTTGTGATTTTCTTTCTTTTTCGCGAGGGCTGTCTTTGCTCCTCCAAATGAGCCCAGTCCCC
CTCCCTTCTCCCCAAAGCGCTCCAAGAGAAAGTGCCAGGAAGGGGCTTGTCCCGAAGGCCTGGCGGCTGAGCGG
GGCCAGGTCTGTTAGGCCACCAGGTGGGCGTCCGCGCCATTGTTTGTGAGCTGTGCGGCGCTGGTGGGAGAGAT
GAGGGCAATTCTCTGGGACGCAAGTCCCCTCGAATGGCCGGGGCTGGCCGGGATGTTCCCGCACGGCGCTGCC
CTCGAGTCCCCCGATGGAGAGCGCGGGCGCGCCTTCTTTCGCTGGCGTCCAAACCCGGGACCAGCTAGAACACA
GCAGGGCTGGGACTGGGTTCAGCCCCACGTGGAGTCTGGATTTGTTTGTGTGTTTGTCTTCTTCTCTGGAA
GAAATCCCGAGGGGACCGCCCTAGAGCGGCAGCTCCAGGACCTCGGCCCTTGGGCTTCCGGGGTGCAGCCACTT
AGGCCCCGCTCCCGGGGAGAGAGGGATTATTTTTTAAGATTTATCCCCAGGGCGCGCGGCATTTCCTGTCCCTC
GTGAATCCCGTTGAGAGTCTCTCCCTCCCAACCTCCTCCATTTCCCCAGCCAGACCGATTTCGAGAGCCCTGGAGA
TTCTGGGCGAGGCTAGTGACTGGGTAGTACAGGCCTCTAGCCCCACCATGTCTCTCTGTCTTCAGTTCCCCAG
GAGGGCAATGGCATCAAAACGACACAGCTCTGGGGGATGTCAATATTGCATACCTTTTCTACCTAAAGGGAAAATG
ACTCGCTTTTCTGCTTGTCAAATATGGTAGTTTCTGCTTACAAATGTAATACAATGCCCATGACAGCCAAGGACTG
GAAGCATAAGTTGCTAGGTCTTACAGGTGATTTTTTACAATGAAGCAAACCTCACTATGTTAGACACCATTTACAT
TGGATGTCTCCAACTAACAAAAGTAACTAAAGACAGATGTAGGTGTAATTTGAGAGTGAATTTGACCCCTTAGA
CCGTCACAACCTTCTTGGGCTTATCCTGGGTGCTTATAGGAGAGGTGGGCTCCACCCACAAAATGGACTGCTCA
GAAAATGAGGGAGAGAGAAAGGGTGGCCACTTTCCCGAGCCAAGAAATTCCTTGAAAAAAATCAGAACATCTG
AAACCAGAGAGCCGATTTCTTACCGGGAGGCAGTTCTTGGCTAACGAAGAGGAAGCACGATGGGAAGAAAAGTT
CACTCCAACGGAAGCCAGTTTGTGTAACATAGCAGATCGCCAGGAGACTGGGAGAGACTGCAAACAGTTTCGA
GCCCCAGCATGGCGTTAGGTGTCAGCCAGCTGGCAGGAAGGTCCAGGTGTCTGTGTTTCAAGTCTCAAGGCGGC
TATGAGAGGTTTTCTCCGAGTACCCAGAATTCTGTTCTAAACCAAGGCCCTGGCAGCCATCCACCCCCGGTT
CCCCCAGTGCCACAGAGCCCTTGGACCTGGGCTGCAGCTCCTGTGGGACCCCACTACACGACCAGGGGGTCTCT
GTGGAGATCCTTCCCTTCTCTACCTCGGCAGTGCCTACCATGCTGCCCGAGAGACATGCTGGACGCCCTGGGC
ATCACGGCTCTGTTGAATGTCTCCTCGGACTGCCCAAACCACTTTGAAGGACACTATCAGTACAAGTGCATCCCA
GTGGAAGATAACCACAAGGCCGACATCAGCTCCTGGTTTATGGAAGCCATAGAGTACATCGATGCCGTGAAGGAC
TGCCGTGGGCGCGTGTGGTGCACGTGCCAGGCGGCATCTCGCGGTGGGCCACCATCTGCCTGGCCTACCTGATG
ATGAAGAAACGGGTGAGGCTGGAGGAGGCCTTCAGATTGTTAAGCAGCGCCGAGCATCATCTCGCCCAACTTC
AGCTTCATGGGGCAGCTGCTGCAGTTCAGTCCAGGTGCTGGCCACGTCTGTGCTGCGGAGGCTGCTAGCCCC
TCGGGACCCCTGCGGGAGCGGGGCAAGACCCCGCCACCCCACTCGCAGTTCGTCTTCAGCTTTCCGGTCTCC
GTGGGCGTGCACCTCGGCCCCCAGCAGCCTGCCCTACCTGCACAGCCCCATCACCACCTCTCCAGCTGT**TAGAGC**
CGCCCTGGGGGCCCCAGAACCAGAGCTGGCTCCAGCAAGGGTAGGACGGGCGCATGCGGGCAGAAAGTTGGGA
CTGAGCAGCTGGGAGCAGGCGACCGAGCTCCTTCCCCATCATTTCTCCTTGGCCAACGACGAGGCCAGCCAGAAT
GGCAATAAGGACTCCGAATACATAATAAAAGCAAACAGAACTCCAACCTTAGAGCAATAACGGCTGCCGAGCA
GCCAGGGAAGACCTTGTTTGGTTTATGTGTGAGTTTCACTTTTCCGATAGAAATTTCTTACCTCATTTTTTTAA
GCAGTAAGGCTTGAAGTGATGAAACCCACAGATCCTAGCAAATGTGCCCAACCAGCTTTACTAAAGGGGGAGGAA
GGGAGGGCAAAGGGATGAGAAGACAAGTTTCCAGAAGTGCCTGGTTCTGTGTACTTGTCCCTTTGTTGTCGTTG
TTGTAGTTAAAGGAATTCATTTTTTAAAGAAATCTTCGAAGGTGTGGTTTTCATTTCTCAGTCACCAACAGAT
GAATAATTATGCTTAATAATAAAGTATTTATTAAGACTTTCTTCAGAGTATGAAAGTACAAAAAGTCTAGTTACA
GTGGATTTAGAAATATATTTATGTTGATGTCAAACAGCTGAGCACCGTAGCATGCAGATGTCAAGGCAGTTAGGAA
GTAAATGGTGTCTTGTAGATATGTGCAAGGTAGCATGATGAGCAACTTGAGTTTGTGCCACTGAGAAGCAGGCG
GGTTGGGTGGGAGGAGGAAGAAAGGGAAGAATTAGGTTTGAATTGCTTTTTAAAAAAGAAAAGAAAAGAC
AGCATCTCACTATGTTGCCAAGGCTCATCTTGAGAAGCAGGCGGGTTGGGTGGGAGGAGGAAGAAAGGGAAGAAT
TAGGTTTGAATTGCTTTTTTAAAAA

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FIGURE 353

MGRKVHSNGSQFAEHSRSPRRITGRDCKPVRAPSMALGVSQLAGRSRCLCSSESQGGYERFSSEYPEFCSTKALAA
IPPPVPPSATEPLDLGCSSCGTPLHDQGGPVEILPFLYLGSAYHAARRDMLDALGITALLNVSSDCPNHFEGHYQ
YKCIPVEDNHKADISSWFMEAIEYIDAVKDCRGRVLVHCQAGISRSATICLAYLMMKKRVRLEEAFEFVKQRRSI
ISPNFSEFMGQLLQFESQVLATSCAAEAASPSGPLRERGKTPATPTSQFVFSPVSVGVHSAPSSLPYLHSPITTS
PSC

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FIGURE 354

CTGCCATTTAGGACAAGCTGGATGATGATGGTTTGATAGCTCCAGGGGTTTCGTGTATAGGAGATGATGAATCTGC
TTCATCCAGAATCACAATCTTAAAAGGCGGGAAGTGAAGGCGACTGTGGGGACATCAGTGATCGTAAGTCTCCTGG
GCCCCGTTATTCTCAGATTAGGTGACGGAGCTAAGACTTCGAGACCATCTCGTCCTTTTTGTATCGCGGAAACCTG
AGGAACGAGCCGGCGGCGGTGACCTGCACGAGAAGCCAGGCTAACTGGGTGAAGTACC**ATG**CAAGCATTCTTAA
AGGTACATCCATCAGTACTAAACCCCGCTGACCAAGGATCGAGGAGTAGCTGCCAGTGCGGGAAGTAGCGGAGA
GAACAAGAAAGCCAAACCCGTTCCCTGGGTGGAAAAATATCGCCCAAATGTGTGGATGAAGTTGCTTTCCAGGA
AGAAGTGGTTGCAGTGCTGAAAAAATCTTTAGAAGGAGCAGATCTTCCTAATCTCTTGTTTTACGGACCACCTGG
AACTGGAAAAACATCCACTATTTTGGCAGCAGCTAGAGAACTCTTTGGGCCTGAACTTTTCCGATTAAGAGTTCT
TGAGTTAAATGCATCTGATGAACGTGGAATACAAGTAGTTCGAGAGAAAGTGAAAAATTTTGCTCAATTAAGTGT
GTCAGGAAGTCGCTCAGATGGGAAGCCGTGTCCGCCTTTTAAGATTGTGATTCTGGATGAAGCAGATTCTATGAC
CTCAGCTGCTCAGGCAGCTTTAAGACGTACCATGGAGAAGGAGTCGAAAACCACCCGATTCTGTCTTATCTGTAA
CTATGTCAGTCGAATAATTGAACCCCTGACCTCTAGATGTTCAAAATTCCGCTTCAAGCCTCTGTCAGATAAAAT
TCAACAGCAGCGATTACTAGACATTGCCAAGAAGGAAAATGTCAAAATTAGTGATGAGGGAATAGCTTATCTTGT
TAAAGTGTGAGAAGGAGACTTAAGAAAAGCCATTACATTTCTTCAAAGCGCTACTCGATTAACAGGTGGAAAGGA
GATCACAGAGAAAGTGATTACAGACATTGCTGGGGTAATACCAGCTGAGAAAATTGATGGAGTATTTGCTGCCTG
TCAGAGTGGCTCTTTTGACAACTAGAAGCTGTGGTCAAGGATTTAATAGATGAGGGTCATGCAGCAACTCAGCT
CGTCAATCAACTCCATGATGTGGTTGTAGAAAATAACTTATCTGATAAACAGAAGTCTATTATCACAGAAAAACT
TGCCGAAGTTGACAAATGCCTAGCAGATGGTGCTGATGAACATTTGCAACTCATCAGCCTTTGTGCAACTGTGAT
GCAGCAGTTATCTCAGAATTGT**TAA**CGTGATATATCTGGATGGGGGTTTTGTAAATAATGAAGTTGTAATAAAA
ATAAAATGACCAAAGCACCG

FIGURE 355

MQAFLKGTSISTKPPLTKDRGVAASAGSSGENKKAKPVPWVEKYRPKCVDEVAFQEEVVAVLKKSL
LEGADLPNLL
FYGPPGTGKTSTILAAARELFGPELFRRLRVLELNASDERGIQVVREKVKNFAQLTVSGSRSDGKPCPPFKIVILD
EADSMTSAAQAALRRTMEKESKTTRFCLICNYVSRIIEPLTSRCSKFRFKPLSDKIQQQRLLDI
AKKENVKISDE
GIAYLVKVSEGLRKAITFLQSATRLTGGKEITEKVITDIAGVIPAEKIDGVFAACQSGSFDKLEAVVKDLIDEG
HAATQLVNQLHDVVVENNLSDKQKSIITEKLAEVDKCLADGADEHLQLISLCATVMQQLSQNC

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FIGURE 356

GGCACGAGCTCGGCTCCTGGAAAGATGGAGGCAGCGGAGACAGAGGCGGAAGCTGCAGCCCTAGAGGTCCTGGCT
GAGGTGGCAGGCATCTTGGAACCTGTAGGCCTGCAGGAGGAGGCAGAACTGCCAGCCAAGATCCTGGTTGAGTTT
GTGGTGGACTCTCAGAAGAAAAGACAAGCTGCTCTGCAGCCAGCTTCAGGTAGCGGATTTCTGCAGAAATCCTG
GCTCAGGAGGACACTGCTAAGGGTCTCGACCCCTTGGCTTCTGAAGACACGAGCCGACAGAAGGCAATTGCAGCT
AAGGAACAATGGAAAGAGCTGAAGGCCACCTACAGGGAGCACGTAGAGGCCATCAAAATTGGCCTCACCAAGGCC
CTGACTCAGATGGAGGAAGCCCAGAGGAAACGGACACAACCTCCGGAAGCCTTTGAGCAGCTCCAGGCCAAGAAA
CAAATGGCCATGGAGAAACGCAGAGCAGTCCAGAACCAGTGGCAGCTACAACAGGAGAAGCATCTGCAGCATCTG
GCGGAGGTTTCTGCAGAGGTGAGGGAGCGTAAGACAGGGACTCAGCAGGAGCTTGACAGGGTGTTTCAGAACTT
GGAAACCTGAAGCAGCAGGCAGAACAGGAGCGGGACAAGCTGCAGAGGTATCAGACCTTCCTCCAGCTTCTGTAT
ACCCTGCAGGGTAAGCTGTTGTTCCCTGAGGCTGAGGCTGAGGCAGAGAATCTTCCAGATGATAAACCCACAGCAG
CCGACTCGACCCAGGAGCAGAGTACAGGAGACACCATGGGGAGAGACCCTGGTGTGTCCTTCAAGGCTGTTGGT
CTACAACCTGCTGGAGATGTAAATTTGCCATGACTTCCTGGAGGACAGCAGCATGGAGAAAAGATCCTAGAAAAGG
CCTCTGACTTCCCTCACCTCCCAACCATCATTACAGGAAAGACTGTGAACTCCTGAGTTCAGCTTGATTTCTGAC
TACATCCCAGCAAGCTCTGGCATCTGTGGATTAAATCCCTGGATCTCTCTCAGTTGTGTATTTGTTTCATCTTCA
TATGCTGGCAGGAACAACCTATTAATACAGATACTCAGAAGCCAATAACATGACAGGAGCTGGGACTGGTTTGAAC
ACAGGGTGTGCAGATGGGGAGGGGGTACTGGCCTTGGGCCTCCTATGATGCAGACATGGTGAATTTAATTCAAGG
AGGAGGAGAATGTTTTAGGCAGGTGGTTATATGTGGGAAGATAATTTTATTCATGGATCCAAATGTTTGTGAGT
CCTTTCTTTGTGCTAAGGTTCTTGCGGTGAACCAGAATTATAACAGTGAGCTCATCTGACTGTTTTAGGATGTAC
AGCCTAGTGTTAACATTCTTGGTATCTTTTTGTGCCTTATCTAAAACATTTCTCGATCACTGGTTTCAGATGTTC
ATTTATTATATTCTTTCAAAGATTCAGAGATTGGCTTTTGTCACTCCACTATTGTATGTTTTGTTTCATTGACCT
CTAGTGATACCTTGATCTTTCCCACTTTCTGTTTTCGGATTGGAGAAGATGTACCTTTTTTGTCAACTCTTACTT
TTATCAGATGATCAACTCACGTATTTGGATCTTTATTTGTTTTCTCAATAAATATTTAAGGTTAAAAA
AAAAA

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FIGURE 357

MEAAETEAEAAALEVLAEVAGILEPVGLQEEAELPAKILVEFVVD SQKKDKLLCSQLQVADFLQNILAQEDTAKG
LDPLASEDTSRQKAIAAKEQWKELKATYREHVEAIKIGLTKALTQMEEAQRKRTQLREAFEQLQAKKQMAMEKRR
AVQNQWQLQQEKHLQHLEVSAEVRERKTGTQQELDRVFQKLGNLKQQAEEQERDKLQRYQTFLQLLYTLQ GKLLF
PEAEAEAENLPDDKPQQPTRPQEQSTGDTMGRDPGVSFKAVGLQFAGDVNLP

FIGURE 358

CCTTCAGCATAAAAGCTGATCCACAAACAAGAGGAGCACCAGACCTCCTCTTGGCTTCGAGATGGCTTCGCCACA
CCAAGAGCCCAAACCTGGAGACCTGATTGAGATTTTCGCCTTGGCTATGAGCACTGGGCCCTGTATATAGGAGA
TGGCTACGTGATCCATCTGGCTCCTCCAAGTGAGTACCCGGGGCTGGCTCCTCCAGTGTCTTCTCAGTCCTGAG
CAACAGTGCAGAGGTGAAACGGGGGCGCCTGGAAGATGTGGTGGGAGGCTGTTGCTATCGGGTCAACAACAGCTT
GGACCATGAGTACCAACCACGGCCCCGTGGAGGTGATCATCAGTTCTGCGAAGGAGATGGTTGGTCAGAAGATGAA
GTACAGTATTGTGAGCAGGAACCTGTGAGCACTTTGTCGCCCAGCTGAGATATGGCAAGTCCCGCTGTAAACAGGT
GGAAAAGGCCAAGGTTGAAGTCGGTGTGGCCACGGCGCTTGGAATCCTGGTTGTTGCTGGATGCTCTTTTGCGAT
TAGGAGATACCAAAAAAAGCAACAGCCTGAAGCAGCCACAAAATCCTGTGTTAGAAGCAGCTGTGGGGGTCCCA
GTGGAGATGAGCCTCCCCCATGCCTCCAGCAGCCTGACCCTCGTGCCCTGTCTCAGGCGTTCTCTAGATCCTTTC
CTCTGTTTCCCTCTCTCGCTGGCAAAAGTATGATCTAATTGAAACAAGACTGAAGGATCAATAAACAGCCATCTG
CCCCTTCAAAAAAAAAA

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FIGURE 359

MASPHQEPKPGDLIEIFRLGYEHWALYIGDGYVIHLAPPSEYPGAGSSSVFSVLSNSAEVKRGRLEDVVGCCYR
VNNSLDHEYQPRPVEVLISSAKEMVGQMKYSIVSRNCEHFVAQLRYGKSRCKQVEKAKVEGVATALGILVVAG
CSFAIRRYQKKATA

FIGURE 360A

AGGGGGCGGCGCTCCCGGCCCATCCCTTAGCCCCGCGGCGGCCGTGTGGGCCGGAGGCTGCCTGCACCGCGTCAG
GGAGGCCGGCCTAGAAACCCTCCCTCCCAGAAGAAAGCCGATCCCAGTTCAGGTGGGGTCTTCTCGGTTGCGTA
CCTGGCTGGAGCCGAGCTGGTGGGCGGCCGGCAGCCGGCGTTTCTGGTGATGACAGCCCCGAAATGAAAGCAGCG
CGGCCGCCGCTCCGAGGGCTGCAGGGAGATCAGCGTCCAGCAAATAAGAAGCAAGTCTTGGACCCGGAGGAGGA
GGAGCGGCCGAGCATCTCTCTGCTCCGCCGTGTCTTTAGATGAGCACTCCCGGCCGGAGCCGGAGGTGGATC
CGCAGAGCTGCCTCTGGGCGCCTGACCCCGCGCTGACATCACAACTGTGACAGGCGCATCACGCCCGGTACCTG
CTCCCGGCCGCTGCCCGTCTCCAGCCTCTTTGTATGCCGCGAGCATGGCCAGCCAGCAGGATTGGGGCTTCTT
TGAGATCAGTATCAAATATTTACTGAAATCCTGGAGTAATACTTCTCCCGTTGGCAACGGTTACATCAAGCCTCC
GGTTCCACCTGCTTCTGGCAGGCACAGGGAGAAAGGGCCGCCAACCATGCTACCCATCAATGTGGACCCAGACAG
TAAACCAGGAGAATATGTCCTCAAAGTTTATTTGTCAACTTCACCACTCAGGCTGAACGCAAGATTTCGTATCAT
TATGGCAGAGCCCCTGGAAGCCATTGACGAAATCTCTGCAACGTGGAGAAGACCCCCAATTTGATCAGGTCAT
CAGCTCAATGAGCTCCCTTTCTGAGTACTGCCTGCCTTCCATTCTACGTACATTATTTGACTGGTATAAAAGGCA
AAATGGCATTGAGGATGAATCACATGAATACAGACCAAGAACAAGCAATAAATCAAAAAGCGATGAACAACAGCG
AGATTATTTAATGGAAAGACGGGACCTCGCCATTGATTTTATTTTTCTTTAGTATTAATAGAAGTTTTGAAACA
GATTCCACTTCATCCTGTAATAGACAGTTTAATACATGATGTTATTAACCTGGCTTTCAAGCACTTTAAATACAA
AGAAGGGTACCTTGGTCCCAACACTGGCAATATGCATATTGTGGCAGACCTGTATGCAGAAGTCATTGGAGTGTT
GGCACAAGCCAAATTCCTGCTGTAAAGAAGAAATTTATGGCGGAGCTAAAAGAATTACGGCACAAAGAGCAGAA
CCCATATGTGGTTCAAAGCATTATCAGCTTAATAATGGGCATGAAATTCCTTCGAATTAAGATGTATCCAGTGGA
GGATTTTGAGGCCTCTCTTCAGTTTATGCAGGAATGTGCACATTACTTCCTCGAGGTCAAAGACAAAGATATCAA
GCATGCCTTGGCTGGGCTTTTTGTTGAAATACTTGTTCAGTTGCTGCTGCTGTTAAAAATGAAGTAAATGTTCC
CTGCCTTAGAAATTTTGTGGAAAGCCTGTATGACACCACGCTGGAACCTTCTTCTCGAAAGAAGCATTCTTTGGC
CTTGTAACCCCTGGTGACCTGTTTGCTCTGTGTGTCAGTCAGAAGCAGCTGTTTCTGAACAGGTGGCACATTTTCTT
CAACAACCTGCTTGTCCAACCTTAAAAACAAAGATCCCAAGATGGCTCGAGTTGCACTGGAATCTCTCTACAGATT
ACTTTGGGTTTACATGATTTCGAATTAAATGTGAAAGCAACACAGCTACTCAGAGCCGACTTATAACCATCATCAC
AACACTTTTCCCCAAAGGTC²CGCGGTGTGGTACCAAGGGACATGCCTCTGAACATCTTTGTGAAATCATCCA
GTTTATTGCCCAGGAACGTTTAGATTTTGCAATGAAAGAAATCATTTTCGATTTTCTTTGTGTGGGAAACCAGC
AAAAGCATTTCAGTCTCAACCCAGAGAGAATGAACATTGGTTTACGGGCATTCTTGGTCATAGCTGATAGCTTGCA
GCAGAAAGATGGGGAACCTCCCATGCCGGTTACAGGAGCCGTTCTTCTTCAGGAAACACGTTAAGAGTAAAGAA
AACATATTTGAGTAAACACTAACTGAAGAGGAAGCCAAATGATAGGCATGTCCTTATATTACTCTCAAGTACG
AAAAGCTGTAGACAACATTTTAAGGCACCTTGATAAAGAAGTAGGAAGGTGTATGATGCTGACTAATGTACAGAT
GTTAAACAAAGAACC³GGAAGACATGATCACGGGTGAGAGAAAGCCAA⁴AATAGATCTTTTCAGGACCTGTGTTGC
TGCTATTCTCGACTGCTTCTGTATGGGATGTCAAAACTTGA⁵ACTTATTGACTTACTGGCTAGGCTCTCTATTCA
TATGGATGATGAATTGCGACATATTGCACAAATTCCTTTCAGGGTTTACTTGTGACTTCTCAGATTGGAGGGA
AGATGTACTATTTGGCTTTACCAACTTCTGTCTCCGGGAAGTAAATGATATGCATCACACACTCCTTGATTCTGTC
CCTGAAGTTGCTGCTGCAGCTGCTCACCCAGTGGA⁶AACTAGTCATCCAGACACAAGGAAAAGTCTATGAACAAGC
CAACAAAATCAGAAATTCAGAGCTCATCGCAAATGGCTCCAGTCACAGAATTCAGTCGGAACGAGGTCCCCACTG
CAGTGTA⁷CTCCACGCTGTAGAAGTTTTGCTCTGGTTTTACTCTGCAGTTTTCCAGGTGGCCACACGCAA⁸ACTGTC
CGTTTTAATACTCAAGGAAATTCAGAGCTTGTATTATG⁹CCCTGGGGCAGCCTGAGGATGACGACAGGCCGATGAT
TGATGTCATGGATCAGCTAAGTTCTTCCATTCTAGAAAGTTTTATTCA¹⁰TGTAGCAGTTTCGGATTTCAGCAACATT
ACCACTCACCCACAATGTGGATCTGCAGTGGTTGGTGGAAATGGAACGCAGTCCTGGTCAATAGCCATTATGATGT
GAAAAGCCCTTCCCATGTCTGGATATTTGCACAGTCTGTCAAAGACCCCTGGGTCTCTGCCTCTTCAGCTTCCT
CCGGCAGGAGAACTTACCCAAGCACTGCCCCACAGCCCTCAGCTATGCCTGGCCTTATGCCTTCACTCGGCTCCA
GTCGGTGATGCCCTCTGGTGGACCCAAATAGCCCAATTAATGCCAAGAAACCAGCACTGCCGGCAGCGGAGACAA
CTATGTTACTTTGTGGAGAAATTACCTAATTCTTTGTTTTGGAGTTGCAAAACCAGTATTATGAGCCCAGGACA
CTTAAGAGCTTCCACTCCAGAAATAATGGCGACCACACCTGATGGTACAGTGAGCTACGATAACAAGGCCATAGG
CACCCCATCGGTGGGAGTTCTGTTAAAGCAGTTGGTGCCTTTGATGAGACTAGAGAGCATTGAGATCACAGAGTC
CTTAGTTTTAGGATTTGGAAGAACAATTCCTTGTTTTCAGAGAATTGGTAGAAGA¹¹ACTTCATCCATTAAATGAA
AGAAGCTCTGGAAGAAGACCAGAGAACAAGAAACGCCGAGAACGGCGAGACTTGTTAAGGCTACA¹²ACTACTCG

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FIGURE 360B

AATTTTGAACCTTTGGCTGATGCTGGTGTAAATAAGTGACAGCACAAATGGAGCCCTAGAGCGGGATACTTTAGC
CCTGGGAGCTTTGTTCTTAGAATATGTGGACTTGACCCGCATGCTCCTAGAAGCTGAAAATGACAAAGAAGTTGA
AATTCCTAAAGATATCCGGGCACATTTTAGTGCAATGGTGGCCAACTTGATTGAGTGTGTTCCAGTTCACCACCG
AAGATTTCTCTTCCCCCAGCAAAGTCTGAGGCACCACCTTTTCATCTTATTCAGCCAGTGGGCAGGACCCTTCAG
CATTATGTTCACTCCTCTGGATCGTTACAGTGACAGAAATCATCAGATTACAAGATATCAGTATTGTGCATTAAA
AGCAATGTCAGCAGTACTGTGCTGTGGCCCTGTCTTTGACAATGTGGGCCTTTCCCCAGATGGCTACCTATATAA
ATGGCTTGACAACATTCTGGCTTGTCAAGATTTACGAGTTCATCAACTTGGCTGCGAAGTTGTTGTCTTGCTACT
GGAACCTTAATCCTGACCAAATAAATCTTTTTAACTGGGCAATTGACCGATGCTACACAGGTTCTACCAACTTGC
ATCTGGCTGCTTCAAAGCCATAGCAACTGTGTGTGGAAGCAGGAACTATCCCTTCGACATAGTGACATTGTTAAA
CCTTGTTCTATTCAAGGCCTCTGACACCAACAGAGAGATTTATGAAATCTCCATGCAGCTCATGCAGATCCTTGA
AGCAAAGCTTTTTGTATACTCAAAGAAAGTCGCTGAGCAAAGACCGGGAAGTATTCTCTATGGAACACACGGCCC
GCTGCCACCCCTCTACAGCGTGTCACTCGCCCTCTTGTCTGTGAGCTGGCCAGGATGTACCCTGAGCTCACACT
CCCCCTCTTCTCAGGTAAGCCAGCGATTCCCCACAACACACCCCAACGGGCGCCAGATCATGCTTACCTACCTGC
TGCCCTGGCTGCACAACATCGAGCTGGTGGACAGCAGGCTCCTCCTCCCGGTCGAGCCCCAGCAGCCAGAGGA
CGAAGTCAAGGACCGGGAAGGTGACGTGACTGCTTCTCACGGGCTGAGAGGAAATGGCTGGGGCTCTCCAGAAGC
CACGTCACTGGTCTGAACAACCTCATGTACATGACGGCCAAGTATGGAGATGAAGTTCTTGGGCCAGAAATGGA
AAATGCTTGGAATGCTTTAGCCAACAATGAGAAATGGAGCAACAACCTGAGGATCACCTTGCAGTTCCTGATTAG
CCTCTGTGGGGTCAGCAGCGACACAGTTCCTACCTATATTAAGGAGTGGCAATATACTTGTGCCGTAACAA
CACCATTCAAACCATGGAAGAGCTTCTCTTTGAGCTGCAGCAGACAGAACCCGTGAACCCATCGTCCAGCATTG
TGACAACCCGCCCTTCTACCGCTTACGGCCAGTAGCAAGGCTTCCGCAGCAGCCTCAGGAACCACTCTAGCAG
CAATACAGTGGTTGCTGGCCAGGAAAATTTCCCAGATGCTGAGGAGAAACAAGATATTGAAAGAATCTGATGAAAG
GTTTAGTAATGTCATCAGAGCCACACTCGCCTCGAGTCAAGATACAGCAATAGCTCTGGAGGATCCTACGATGA
AGATAAAAATGATCCAATTTCTCCCTACACGGGCTGGTTGCTGACTATTACAGAGACCAAGCAGCCGCAGCCCTT
ACCGATGCCTTGTACTGGAGGATGCTGGGCCCCCTGGTTGACTATCTCCCGGAGACCATCACTCCCCGGGGGCC
ACTCCACAGGTGCAATATTGCTGTAATTTTTATGACTGAAATGGTGGTGGATCACAGTGTACGAGAAGACTGGGC
GCTTCATCTACCATTATTACTTCATGCTGTCTTCTTAGGTTTAGACCACTACCGGCCTGAAGTCTTTGAACACAG
CAAAAACTGCTTCTTACCTCTTGATTGCCCTCTCTTGCAACAGCAATTTCCATTCCATTGCTTCCGTGCTCCT
GCAGACCCGAGAGATGGGTGAAGCTAAGACTCTAACCGTGCAGCCAGCCTACCAACCTGAATATCTCTATACAGG
TGGCTTTGACTTCCTGAGAGAGGACCAGTCATCCCCGGTGCCTGACTCAGGGCTTAGTTCAAGCTCCACCTCCTC
TAGCATCAGTCTGGGAGGCAGCAGTGGAACCTCCACAGATGACCCAGGAGGTAGAAGATGTGGACACAGCTGC
TGAAACAGATGAGAAGGCAAACAAGCTCATTGAGTTTCTCACGACCAGGGCATTGTTGCCACTTTGGTGCCATGA
AGACATCACACCTAAAAATCAAATTCAAAGAGTGCTGAACAGCTCACTAATTTCTACGTACAGTTGTATCTGT
ATTTAAAGATTCCAAATCAGGCTTCCATCTGGAGCACCAGTTGAGTGAAGTTGCATTGCAGACAGCCCTCGCAAG
CTCTTCAAGGCACTATGCTGGTTCGCTCCTTCCAGATATTCCGGGCCCTCAAGCAACCTCTGTGACACATGCCTT
ATCTGACCTTCTCTCAAGATTGGTGGAGGTGATAGGAGAACATGGAGATGAGATTGAGGTTATGTAATGGAAGC
GCTCCTAACCTTGGAGGCGGCTGTGGATAACTTGTCTGACTGCTTGAAGAACAGTGACCTCCTAACTGTATTGTC
CCGCTCTTCTCACCAGATTTAAGCTCCAGCAGTAACTAACAGCAAGCAGAAAGAGCACAGGACAATAACAT
GAACCCGGGAACCAACAGCGGCAACACCGCAACTGCCGAACGGAGCCGGCATCAACGAAGCTTCTCTGTGCCAA
GAAGTTTGGTGTATCGACCGATCCTCTGACCCACCTCGAAGTGCCACACTGGACAGAATTCAGGCTTGTACCCA
ACAAGGCCCTCTCTCAAACCAAGAGCTCATCCTCCTTGAAGGACAGTCTCACGGACCCATCCACATAAACCA
TCCCACCAACCTGCTGGCCACCATATTCTGGGTACAGTGGCCTTGATGGAGTCTGATTTTGAAGTTTGAATACTT
AATGGCCTTAAGGCTGTTGAGCAGACTACTGGCACATATGCCACTCGATAAGGCTGAGAACCAGAGAAAAGCTTGA
GAACTCCAGGCACAGCTGAAGTGGGCGACTTCTCCGGGCTGCAGCAGCTGCTGCTGAAAGGATTACATCCCT
CACCACCACAGACCTGACCTGCAGCTCTTCACTGCTGACACCAGTGTCCAAAATATCCATGGTGGATGCATC
CCACGCTATTGGGTTTCACTGAATGTCTTGTGTCTCCTGCCTCAGCTGATTGAGCATTGAAATCCCAATCA
GTTCTGTAAGGATATAGCCGAAAGGATTGCTCAGGTTTGTGTTAGAAGAGAAGAACCCCAAACCTTCAAATCTTGC
ACATGTCATGACTCTTTATAAAACGCACAGCTACACGAGGGACTGTGCCACGTGGGTCAATGTGGTCTGTGATA
CCTTCATGAAGCATATGCTGACATTACCTTGAATATGGTTACCTACCTGGCAGAGCTGCTGGAGAAGGGCCTCCC

FIGURE 360C

TAGTGTGCAGCAGCCCCCTGCTCCAGGTGATCTACAGTCTTCTCAGCTACATGGACCTTTCTGTGTTCTGTCAA
ACAGTTCAATGTGGAAGTTCTGAAGACAATTGAAAAATATGTGCAAAGTGTTCACTGGAGAGAAGCTCTGAATAT
CTTGAAGCTGGTAGTTTCTCGGTCAGCCAGCCTTGTTTTACCTTCATACCAGCACAGTGACCTCTCAAAAATAGA
AATACATCGAGTGTGGACTAGTGCTTCCAAGGAATTACCTGGGAAAACCCTGGACTTCCACTTCGATATTTGGA
GACTCCAATCATCGGGAGGCGGTATGATGAGCTGCAGAATTCTTCTGGGCGTGATGGGAAGCCCAGGGCCATGGC
CGTCACCCGGAGCACATCTTCCACTTCCTCAGGCTCCAACCTCCAACGTCCTTGTTCCAGTGAGCTGGAAAAGGCC
CCAGTATTCTCAGAAGAGAACAAAAGAGAAGTTGGTACATGTCTTTTCTCTGTGTGGCCAAGAAGTAGGATTGAG
CAAAAATCCATCAGTGATTTTTTCATCGTGTGGGATCTGGATCTGCTTGAGCACCAGACAAGCTTGGTATCTTC
TGAGGACGGTGCCCGAGAGCAGGAGAACATGGATGACACAAACAGCGAGCAGCAGTTTAGAGTCTTCAGAGACTT
CGACTTCCTAGATGTGGAGCTGGAGGATGGAGAGGGTGAGAGTATGGACAATTTCAACTGGGGAGTGCGCAGACG
TTCTCTGGACAGCCTGGATAAGTGTGATATGCAGATTCTGGAGGAGCGCCAAGTGTGAGGAAGCACTCCTAGCCT
GAATAAAATGCACCATGAGGACTCCGATGAATCATCCGAGGAGGAGGACCTCACAGCCAGCCAGATCCTGGAGCA
CTCAGACCTAATCATGACTCTCTCCCCCTCTGAAGAGACGAATCCCATGGAGCTGCTCACCACAGCCTGTGACTC
GACCCCTGCAGAACCTCATTCTTTAACACCAGAATGTCCAGCTTTGATGCTTCCTTGCCTGATATGAATAATCT
GCAGATTTCTGAGGGTTCAAAGGCTGAAGCTGTTCTGTGAGGAGGAGGACACCACCGTGCATGAGGATGATCTTTC
TAGTTCCATCAATGAACTCCCAGCAGCTTTTGAATGCAGCGACAGCTTTAGCCTGGACATGACTGAGGGGGAAGA
AAAAGGCAATCGGGCACTGGACCAGTTTACCCTGGCGAGCTTTGGAGAAGGTGACAGGGGAGTCTCTCCCCCTCC
CTCGCCCTTCTTCTCAGCCATCCTTGCCGCTTTTACGCCCGCAGCCTGTGACGATGCCGAGGAGGCTGGCGCAG
CCACATCAACCAGCTTATGTGTGACTCAGATGGCTCCTGTGCTGTGTATACATTTATGTGTTCTCCTCCTTGTT
TAAGAATATTGAGAAAAGGTTCTGCTTCTAACCTGTGATGCAGCCAGTTACCTTGGAGATAACCTCCGGGGAAT
CGGATCCAAATTTGTGAGCTCTTCCCAGATGCTCACCTCCTGCTCTGAATGTCCTACACTTTTTGTGGATGCCGA
GACTCTCCTTTATGTGGACTTCTGGACAAGCTCAAGTTCAGTGTTAGAACTGCAAGAATATTTGGATACCTA
CAACAACAGGAAAGAGGCCACACTCTTGGCTTGCAAATTGTAAGGCAACATTTGCAGGGGGATCAAGAGATGG
AGTAATTACCTGTCAACCAGGGGACTCCGAAGAAAAGCAATTGGAAGTGTGTGAGAGATTATATAAGCTACACTT
CCAGCTGCTATTGCTTTTTTCTAGTCTACTGTAAGCTCATCGGCCAGGTGCACGAAGTTAGCTCCATGCCAGAGCT
GCTGAATATGTCCAGGGAAGTGAAGTACCTAAAGAAACACCTGAAGGAAGCCAGTGCAGTCATTGCAGCTGACCC
TCTCTATTGACAGGCGCGTGGTCCGAGCCACCTTCACGTCCACTGAAGCAGCCATCCAGTCCATGCTGGAGTG
CCTGAAGAACAACGAACTCGGCAAAGCTTTGCGGCAGATCAGGGAGTGCAGAAGTCTGTGGCCCAATGACATCTT
TGGAAGCAGTTCTGATGATGAGGTCCAGACACTACTGAATATTTATTTCCGTACCAAACCTCTGGGACAGACGGG
TACTTATGCCCTGGTGGGTCTAACCAGAGCCTGACCGAGATCTGCACCAAGCTGATGGAGCTGAACATGGAGAT
CCGGGACATGATCCGCAGGGGCCAGAGTTACCGAGTCTCTACTACTTTTCTTCCAGACTCCAGTGTTTCTGGCAC
TAGTCTCTGACAGGAGCCTCCTGTCCCCACTGGGTTCCAAACTGCAGTGCTGCCATGCTGGGGCAACGTCATTCA
GTGTCTTCTCGGCCTTCAAAGGCTTGGACAGACTGTTCTCCCTCTTGTTACCTGTAGGGCTTTTTCTAAAGAGG
ATGGCAGAAGTTCCAACGTGTAGCAATACTATAAGAACCAAGGTAGCTTAGAACGTCCTGGACAGACTCCACTCA
TCATGCTGTGTGGACAAATGTGTTACATTTGACCGAGCATATGCAACTCGCTACTGAAGAAGTGACTTCCGTTG
CATACCAAAGCCGACTACACTGAACAGTACCTTCTTTCTAGAAACAATTTTAGATTGGCAAAAGTGCAATGTTT
TCTTCACTCAAAAAATTTTATATTCTCAAACATGTATATTCTTCCCTGTCTTGTTCCATTTTCTTTTTCTTTTT
CTTTTTCTTTTTCTTTCTTTCTGTTGGCTGAGAAAGGGCAGGCAAAATGAAGCTGGCCACTGAAAAGTGAAG
ATGGTCAAAAGCTGACAGCCTGTGTATGTGAAAAGGGAATTGTAATGGACTGCAATGTAATGTACACTGTAATT
TGAATACAATTACTGTATCTAAAAGGAGCTGCTATGAAGTACCTTTCTTATGTTGCTAGGCTACTGTTTCTGAAA
GCCCTGGATCTCTTTGCACCAAAAATGGTCCAGATAGACTCTTTTAAAGGATCTTGGCTGCTTTTTACTAGAAGG
TTGCTTTTATGAGCATATTTATACTGCTGAAGGATGAGTGTTAATTTAATTAACCTTGCCGTTTTGTAGAGAAA
ACTATTCAAGATAAATTCGAAGTCTTTTACCTGTGAGGATGCATATTTAATATCTGTTTGGATAGTCAGA
AGTAGAATCATAAAGGTAAATATGAGTTGTTACTTTGTTTCTTCGATGTCATATTTATGTGTAATATATATGT
AAAGGGCCATTCTTAAGTTCTCTCTTAACTTAATGCTGTCAAGTGTTAGATGTGTGCATGTGAACCTGTTGCA
CTGCAGAAACATATTCAGAGTTTATCTATGTAACCTTATCACTCTGTAAATACATTTAAAGTTTTGTGATGTAA
GCTTAATTGATATTCTGTTCAAGACTTTCTTTAGACTAAAAAAAAAAAAAAAAAGACAAA

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FIGURE 361

MASQQDSGFFEISIKYLLKSWNTSPVGNGYIKPPVPPASGTHREKGPPTMLPINVDPDSKPGEYVLKSLFVNFT
TQAEKIRIIMAEPLEKPLTKSLQRGEDPQFDQVISSMSSLSEYCLPSILRTLFDWYKRQNGIEDESHEYRPRTS
NKSKSDEQQRDYLMERRDLAIDFIFSLVLIEVLKQIPLHPVIDSLIHDVINLAFKHFKYKEGYLGPNTGNMHIVA
DLYAEVIGVLAQAKFPAVKKKFMAELKELRHKEQNPYVVQSIISLIMGKFFRIKMPVEDFEASLQFMQECAHY
FLEVKDKDIKHALAGLFVEILVPVAAAVKNEVNVPCLRNFEVSLYDTTLELSSRKKHSLALYPLVTCLLCVSQKQ
LFLNRWHIFLNNCLSNLKNKDPKMARVALESYRLLWVYMIRIKCESNTATQSRITITITTLFPKSGRGVVPDML
PLNIFVKIIQFIAQERLDFAMKEIIFDFLCVGKPAKAFSLNPERMNI GLRAFLVIADSLQQKDGEPPMPVTGAVL
PSGNTLRVKKTYLSKLTTEEEAKMIGMSLYYSQVRKAVDNILRHLDKEVGRCMMLTNVQMLNKEPEDMITGERKP
KIDLFRTCVAAIPRLLPDGMSKLELIDLLARLSIHMDDEL RHIAQNSLQGLLVDFS DWREDVLF GFTN FLLREV N
DMHHTLLDSSLKLLQLLTQWKLVIQTQGVYEQANKIRNSEL IANGSSHRIQSERGPHCSVLHAVEGFALVLLC
SFQVATRKL SVLILKEIRALFIALGQPEDDDRPMIDVMDQLSSSILESFIHVAVSDSATLPLTHNVDLQWLVEWN
AVLVNSHYDVKSPSHVWIFAQSVKDPWVLCFSFLRQENLPKHCTALSYAWPYAFTRLQSVMLVDPNSPINAK
KTSTAGSGDNVYTLWRNYLILCFGVAKPSIMSPGHLRASTPEIMATTPDGTVSYDNKAIGTPSVGVLLKQLVPLM
RLESIEITESLVLGFGRTNSLVFRELVEELHPLMKEALERRPENKKRRERRDLLRLQLLRIFELLADAGVISDST
NGALERD TLALGALFLEYVDLTRMLLEAENDKEVEILKDIRAHFSAMVANLIQCVPVHHRRLFPQQSLRHHLFI
LFSQWAGPFSIMFTPLDRYSDRNHQITRYQYCALKAMSAVLCCGPVFDNVGLSPDGYLYKWLDNILACQDLRVHQ
LGCEVVVLLLELNPQINLFWAIDRCYTGSYQLASGCFKAIATVCGSRNYPFDIVTLLNLVLFKASDTNREIYE
ISMQLMQILEAKLFVYSKKVAEQRPGSILYGTHGPLPLYSVSLALLSCELARMYPELTLP LFSGKPAIPHNTQP
RAPDHAYLPAALAAQHRAGGQQAPPPGSSPSPPEDEVKDREGDVTASHGLRGNGWGSPEATSLVLNNLMYMTAKY
GDEVPGPEMENAWNALANNEKWSNNLRITLQFLISLCGVSSDVTLLPYIKKVAIYLCRNNTIQTMEELLFELQOT
EPVNP IVQHCDNPPFYRFTASSKASAAASGTTSSSNTVVAGQENFPDAEENKILKESDERFSNVIRAHTRLSRY
SNSSGGSYDEDKNDPISPYTGWLLTITETKQPQLPMPCTGGCWAPLVDYLPETITPRGPLHRCNIAVIFMTEMV
VDHSVREDWALHLP LLLHAVFLGLDHYRPEVFEHSHKLLHLHLLIALSCNSNFHSIASVLLQTREMGEAKTLTVQP
AYQPEYLYTGGDFLREDQSSPVPD SGLSSSSTSSSISLGGSSGNLPQMTQEVEDVDTAETDEKANKLIEFLT
RAFGPLWCHEDITPKNQNSKSAEQLTNFLRHVVS VFKDSKSGFHLEHQLSEVALQTALASSSRHYAGRSFQIFRA
LKQPLSAHALSDLLSRLVEVIGEHGDEIQGYVMEALLTLEAAVDNLS DCLKNSDLLTVLSRSSSPDLSSSSKLTA
SRKSTGQLNMNPGTTSGNTATAERSRHQRSFSVPKKFGVIDRSSDPPRSA

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FIGURE 362

TTCCCCCCCCCCCCCCCCCCCCCGCCCGAGCACAGGACACAGCTGGGTTCGAAGCTTCTGAGTTCTGCAGCCT
CACCTCTGAGAAAACCTCTTTTCCACCAATACCATGAAGCTCTGCGTGACTGTCCTGTCTCTCCTCATGCTAGTA
GCTGCCTTCTGCTCTCCAGCGCTCTCAGCACCAATGGGCTCAGACCCTCCCACCGCCTGCTGCTTTTCTTACACC
GCGAGGAAGCTTCCTCGCAACTTTGTGGTAGATTACTATGAGACCAGCAGCCTCTGCTCCCAGCCAGCTGTGGTA
TTCCAAACCAAAAGAAGCAAGCAAGTCTGTGCTGATCCCAGTGAATCCTGGGTCCAGGAGTACGTGTATGACCTG
GAACTGAACTGAGCTGCTCAGAGACAGGAAGTCTTCAGGGAAGGTCACCTGAGCCCGGATGCTTCTCCATGAGAC
ACATCTCCTCCATACTCAGGACTCCTCTCCGCAGTTCCTGTCCCTTCTCTTAATTTAATCTTTTTTATGTGCCGT
GTTATTGTATTAGGTGTCATTTCCATTATTTATATTAGTTTAGCCAAAGGATAAGTGCCTATGGGGATGGTCCA
CTGTCACTGTTTCTCTGCTGTTGCAAATACATGGATAACACATTTGATTCTGTGTGTTTTCCATAATAAACTTT
AAAATAAAATGCAGACAGTTA

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FIGURE 363

MKLCVTVLSLLMLVAAFCSFALSAPMGSDPPTACCFSTARKLPRNFVVDYYETSSLCSQPAVVFQTKRSKQVCA
DPSESWVQEYVYDLELN

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FIGURE 364

GGCACGAGGCTCGTGCCGCCGGGCTCTTGGTACCTCAGCGGAGCGCCAGGCGTCCGGCCGCCGTGGCT**ATGTT**
 CGTGTCCGATTTCCGCAAAGAGTTCTACGAGGTGGTCCAGAGCCAGAGGGTCCTTCTCTTCGTGGCCTCGGACGT
 GGATGCTCTGTGTGCGTGCAAGATCCTTCAGGCCTTGTTCCAGTGTGACCACGTGCAATATACGCTGGTTCCAGT
 TTCTGGGTGGCAAGAACTTGAAACTGCATTTCTTGAGCATAAAGAACAGTTTCATTATTTTATTCTCATAACTG
 TGGAGCTAATGTAGACCTATTGGATATTCTTCAACCTGATGAAGACACTATATTCTTTGTGTGTGACACCCATAG
 GCCAGTCAATGTCTCAATGTATACAACGATACCCAGATCAAATTACTCATTAAACAAGATGATGACCTTGAAGT
 TCCCGCCTATGAAGACATCTTCAGGGATGAAGAGGAGGATGAAGAGCATTTCAGGAAATGACAGTGTGGGTGAGA
 GCCTTCTGAGAAGCGCACACGGTTAGAAGAGGAGATAGTGGAGCAAACCATGCGGAGGAGGCAGCGCGAGAGTG
 GGAGGCCCGGAGAAGAGACATCCTCTTTGACTACGAGCAGTATGAATATCATGGGACATCGTCAGCCATGGTGAT
 GTTTGAGCTGGCTTGATGCTGTCCAAGGACCTGAATGACATGCTGTGGTGGGCCATCGTTGGACTAACAGACCA
 GTGGGTGCAAGACAAGATCACTCAAATGAAATACGTGACTGATGTTGGTGTCTGCAGCGCCACGTTTCCCGCCA
 CAACCACCGGAACGAGGATGAGGAGAACACACTCTCCGTGGACTGCACACGGATCTCCTTTGAGTATGACCTCCG
 CCTGGTGCTCTACCAGCACTGGTCCCTCCATGACAGCCTGTGCAACACCAGCTATACCGCAGCCAGGTTCAAGCT
 GTGGTCTGTGCATGGACAGAAGCGGCTCCAGGAGTTCTTGCAGACATGGGTCTTCCCCTGAAGCAGGTGAAGCA
 GAAGTTCCAGGCCATGGACATCTCCTTGAAGGAGAATTTGCGGGAAATGATTGAAGAGTCTGCAATAAATTTGG
 GATGAAGGACATGCGCGTGCAGACTTTCAGCATTCAATTTGGGTTCAAGCACAAAGTTTCTGGCCAGCGACGTGGT
 CTTTGCCACCATGTCTTTGATGGAGAGCCCCGAGAAGGATGGCTCAGGGACAGATCACTTCATCCAGGCTCTGGA
 CAGCCTCTCCAGGAGTAACCTGGACAAGCTGTACCATGGCCTGGAACCTCGCCAAGAAGCAGCTGCGAGCCACCCA
 GCAGACCATTGCCAGCTGCCTTTGCACCAACCTCGTCATCTCCAGGGGCCTTTCCTGTACTGCTCTCTCATGGA
 GGGCACTCCAGATGTCATGCTGTTCTCTAGGCCGGCATCCCTAAGCCTGCTCAGCAAACACCTGCTCAAGTCCTT
 TGTGTGTTGACAAAGAACCGGCGCTGCAAACTGCTGCCCCCTGGTGATGGCTGCCCCCCTGAGCATGGAGCATGG
 CACAGTGACCGTGGTGGGCATCCCCCAGAGACCGACAGCTCGGACAGGAAGAACTTTTTTGGGAGGGCGTTTGA
 GAAGGCAGCGGAAAGCACCAGCTCCCGGATGCTGCACAACCATTTTGACCTCTCAGTAATTGAGCTGAAAGCTGA
 GGATCGGAGCAAGTTTCTGGACGCATTATTTCCCTCCTGTCC**TAGGA**ATTTGATTCTTCCAGAATGACCTTCTT
 ATTTATGTAAGTGGCTTTTATTTAGATTGTAAGTTATGGACATGATTTGAGATGTAGAAGCCATTTTTTTATTAAA
 TAAAATGCTTATTTTAGGCTCCGTCCCCAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

FIGURE 365

MFVSDFRKEFYEVVQSQRVLLFVASDVDALCACKILQALFQCDHVQYTLVPVSGWQELETAFLEHKEQFHYFILI
NCGANVDLLDILQPDEDTIFFVCDTHRPVNVVNVYNDTQIKLLIKQDDDLVPAYEDIFRDEEEDEEHSGNDSGD
SEPSEKRTRLEEEIVEQTMRRRQRREWEARRRDILFDYEQYEHGTSSAMVMFELAWMLSKDLNDMLWWAIVGLT
DQWVQDKITQMKYVTDVGVLQRHVSRRHNRNEDEENTLSVDCTRISFEYDLRLVLYQHWSLHDSLCNTSYTAARF
KLWSVHGQKRLQEFLADMGLPLKQVKQKFQAMDISLKENLREMIEESANKFGMKDMRVQTFSIHFGFKHKFLASD
VVFATMSLMESPEKDGSGTDHFIQALDSLRSNLDKLYHGLELAKKQLRATQQTIASCLCTNLVISQGPFLYCSL
MEGTPDVMLFSRPASLSLLSKHLLKSFVCSTKNRRCKLLPLVMAAPLSMEHGTVTTVGIPPETDSSDRKNFFGRA
FEKAAESTSSRMLHNHFDLSVIELKAEDRSKFLDALISLLS

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FIGURE 366

GC GGGATTTTCAAGCGTAGGCCCGGGAAC TCGAGCTGCC **ATG**AGCCTCTGGGTGGACAAGTATCGGCCCTGCT
CCTTGGGACGGCTGGACTATCACAAGGAGCAGGCGGCCAGCTGCGGAACCTGGTGCAGTGTGGTGACTTTCCTC
ATCTGTTAGTGACGGACCATCAGGTGCTGGAAAAAGACAAGAATTATGTGTATTCTACGTGAACTTTATGGTG
TTGGAGTGGAAAAATTGAGAATTGAACATCAGACCATCACAAC TCCATCTAAAAAAAATTGAAATTAGCACCA
TTGCAAGTAACTACCACCTTGAAGTTAATCCTAGTGATGCTGGAAATAGTGACCGAGTAGTCATT CAGGAGATGT
TGAAAAAGTGGCACAATCACAACAAC TTTGAAACAAACTCTCAAAGGGATTTTAAAGTGGTATTATTGACAGAAG
TTGACAAACTCACCAAAGATGCTCAGCATGCCTTGCGAAGAACCATGGAAAAATATATGTCTACCTGCAGATTGA
TCTTGCTGCTGCAATTCTACATCTAAAGTGATCCACCTATTCTGTAGTAGGTGCTTGGCGGTTCTGTGCTGCTC
CCAGCATTGAAGATATTTGCCACGTGTTATCTACTGTGTGTAAGAAGGAAGGTCTGAATCTTCCTTCACAAC TGG
CTCATAGACTTGCAGAGAAGTCTTGTAGAAATCTCAGAAAAGCCCTGCTTATGTGTGAAGCCTGCAGAGTGCAAC
AATATCCTTTTACTGCAGATCAAGAAATCCCTGAGACAGATTGGGAGGTGTATCTGAGGGAGACTGCAAA TGCTA
TTGT CAGTCAGCAAAC TCCACAAAGGCTCCTTGAAGTTTCGTGGAAGGCTGTATGAGCTTCTAACTCATTGTATTC
CTCCTGAGATAATAATGAAGGGCCTTCTCTCAGAACTGTTACATAATTGTGATGGACAAC TGAAAGGGGAGGTGG
CACAAATGGCAGCTTACTATGAGCATCGTCTACAGCTGGGTAGCAAAGCCATTTATCACTTGGAAGCGTTTGTGG
CCAAATT CATGGCACTTTATAAGAAGTTCATGGAGGATGGATTGGAAGGCATGATGTTCT **TGAC**TTCTGT CAGTTA
TTCTTGCAAAGATTTCTCAGTATCAGTATTTACATACAGCTTATATTAAAGAGCTGTGGGTAAATTAAC TGAAC
TTAATCATGTCGTATTTGCGTTTTTTTGGTAATAACTTCTCTGTGAAC TATTAATCATCCTCTGAGTTAAATAAT
TGCTCCTATACTATTGAAGTATGTAGTTTTGTACATAACTTAGAGACTTTAGAGTCTAAGAAAATGATCTTAATT
TACTTTAAGCATTGGTTATTCAAGTATTCATTGTTGATCCTCCTATTCTCTTCCGTCTAATCTCTCACCTGCTAA
AGGAGATTTACACATTAGAAAGCAAAGATTATTTTCATTTATCCAGATGACCATTTTCTGCCACAGGTAACATGA
TTGTTTGACACACCATTATATTTAATTCTAGTTTCTCTCAATGAATAATTGTATTTTTGTAGGAAATGTAAGATT
TCATTCTGAAACATAATTATTGGTATGGACAAAATTGCAGATACCATTTCTGTTGAGGCTGCAGATTTCCAAC TT
TTATTT CAGTGTTTCAGATTAGTATTAGGTCGGTACTAAGAAATAAGCATGTTTTCTACTAATTTAAGTACTTGAG
ACTCTTGAAGAAAATT CAGAATGAAGTTCTGGAGAAAGGTATGTTACTGTAGTAATTACTCTTTGAACAGGTTTT
GTGTTTTGTCATTAGCTCTGCCCTTTTTAATTAATAATTTTGGTT CATGGACCAAAGGGTTTACTTGACAAATTT
GTGTGACAGACTCCGAACAATTCCTTTACTACGAAGTATAATTTATAAAATAAAATATACCCATTTTAAGGGTAC
AGTTTGATTTTTGACCAGTGAAACTATGATCCCAATCAAGGTATAGATGCCGTCACCCCAAAAGTTCCCTCCAT
ATCCCTTTGCAGTCAGTTCATCCCTACCCTGGCCCAGATGATCACTGATCTTGTCATTATAGATGAGTTTTGCCA
GTTCAAGAATTTAATGGAATCAGATATTGTAAGCATTCTTGTTGAATACTTCATTCTCTCATTATTGAGATTC
ATCCATATTGTTGAATGTTTCACTAGTTAATGTTTATTGTTCAATATTTTTGTATATACTTTTAAAGCCTATTCA
CTTGCTGATGGATCTTTGGTTTGTTCAGGTTTGGTTATTATGAATAAAGTTGCTGTGAATAAAAAAAAAAAAAA
AAAAAA

FIGURE 367

MSLWVDKYRPCSLGRLDYHKEQAAQLRNLVQCGDFPHLLVYGPSGAGKKTRIMCILRELYGVGVEKLRIEHQTIT
TPSKKKIEISTIASNYHLEVNP SDAGNSDRVVIQEMLKTVAQSQQLETN SQRDFKVVLLEVDKLT KDAQHALRR
TMEKYMSTCRLILCCNSTSKVIPPIRSRCLAVRVPAPSI EDICHVLSTVCKKEGLNLP SQLAHR LAEKSCRNLRK
ALLMCEACRVQQYPFTADQEIPETDWEVYLRETANAIVSQQTPQRLLEVGRGRLYELLTHCIPPEIIMKGLLSELL
HNCDGQLKGEVAQMAAYYEHRLQLGSKAIYHLEAFVAKFMALYKKFMEDGLEGMMF

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FIGURE 368

CGAGCTGCC**ATG**AGCCTCTGGGTGGACAAGTATCGGCCCTGCTCCTTGGGACGGCTGGACTATCACAAGGAGCAG
GCGGCCCAGCTGCGGAACCTGGTGCAGTGTGGTGACTTTCCTCATCTGTAGTGTACGGACCATCAGGTGCTGGA
AAAAAGACAAGAATTATGTGTATTTTACGTGAACCTTATGGTGTGGAGTGGAAAAATTGAGAATTGAACATCAG
ACCATCACAACTCCATCTAAAAAAAATTGAAATTAGCACCATTGCAAGTAACTACCACCTTGAAGTTAATCCT
AGTGATGCTGGAAATAGTGACCGAGTAGTCATTGAGGAGATGTTGAAAACAGTGGCACAATCACAACAACCTTGAA
ACAAACTCTCAAAGGGATTTTAAAGTGGTATTATTGACAGAAGTTGACAAACTCACCAAAGATGCTCAGCATGCC
TTGCGAAGAACCATGGAAAAATATATGTCTACCTGCAGATTGATCTTGTGCTGCAATTCTACATCTAAAGTGATC
CCACCTATTTCGTAGTAGGTGCTTGGCGGTTTCGTGTGCCTGCTCCCAGCATTGAAGATATTTGCCACGTGTTATCT
ACTGTGTGTAAGAAGGAAGGTCTGAATCTTTCCTTACAACTGGCTCATAGACTTGCAGAGAAGTCTTGTAGAAAT
CTCAGAAAAGCCCTGCTTATGTGTGAAGCCTGCAGAGTGCAACAATATCCTTTTACTGCAGATCAAGAAATCCCT
GAGACAGATTGGGAGGTGTATCTGAGGGAGACTGCAAATGCTATTGTCAGTCAGCAAACCTCCACAAAGGCTCCTT
GAAGTTCGTGGAAGGCTGTATGAGCTTCTAACTCATTGTATTCTCCTGAGATAATAATGAAGGGCCTTCTCTCA
GAACTGTTACATAATTGTGATGGACAACCTGAAAGGGGAGGTGGCACAATGGCAGCTTACTATGAGCATCGTCTA
CAGCTGGGTAGCAAAGCCATTTATCACTTGGAAAGCGTTTGTGGCCAAATTCATGGCACTTTATAAGAAGTTTCATG
GAGGATGGATTGGAAGGCATGATGTTCT**TGAC**TTCTGTGAGTTATTCTTGCAAAGATTTCTCAGTATCAGTATTTA
CATACAGCTTATATTTAAAGAGCTGTGGGTAAATTAAGTGAACCTAATCATGTCGTATTTGGGTTTTTTTGGTAA
TAACTTCTCTGTGAACCTATTAATCATCCTCTGAGTTAAATAATTGCTCCTATACTATTGAAGTATGTAGTTTTGT
ACATAACTTAGAGACTTTAGAGTCTAAGAAAATGATCTTAATTTACTTTAAGCATTGGTTATTCAAGTATTCATT
GTTGATCCTCCTATTCTCTTCCGTCTAATCTCTCACCTGCTAAAGGAGATTTACACATTAGAAAGCAAAGATTAT
TTTCATTTATCCAGATGACCATTTTCTGCCACAGGTAACATGATTGTTTGACGG

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FIGURE 369

MSLWVDKYRPCSLGRLDYHKEQAAQLRNLVQCGDFPHLLVYGPSGAGKKTRIMCILRELYGVGVEKLRIEHQTIT
TPSKKKIEISTIASNYHLEVNPSDAGNSDRVVIQEMLKTVAQSQQLETNSQRDFKVVLLTEVDKLTKDAQHALRR
TMEKYMSTCRLILCCNSTSKVIPP IRSRCLAVRVPAPSI EDICHVLSTVCKKEGLNLPSQLAHLRAEKSCRNLRK
ALLMCEACRVQQYPFTADQEIPETDWEVYLRETANAIVSQQTPQRLLEVGRGRLYELLTHCIPPEIIMKGLLSELL
HNCDGQLKGEVAQMAAYYEHRLQLGSKAIYHLEAFVAKFMALYKKFMEDGLEGMMF

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FIGURE 370

AGTCTCCGGCGAGTTGTTGCCTGGGCTGGACGTGGTTTTGTCTGCTGCGCCCGCTCTTCGCGCTCTCGTTTCATT
TTCTGCAGCGCGCCACGAGGATGGCCCACAAGCAGATCTACTACTCGGACAAGTACTTCGACGAACACTACGAGT
ACCGGCATGTTATGTTACCCAGAGAACTTTCCAAACAAGTACCTAAAACATCATCTGATGTCTGAAGAGGAGTGGA
GGAGACTTGGTGTCCAACAGAGTCTAGGCTGGGTTTATTACATGATTCATGAGCCAGAACCACATATTCTTCTCT
TTAGACGACCTCTTCCAAAAGATCAACAAAAATGAAAGTTTATCTGGGGATCGTCAAATCTTTTTCAAATTTAATG
TATATGTGTATATAAGGTAGTATTCAGTGAATACTTGAGAAATGTACAAATCTTTCATCCATACCTGTGCATGAG
CTGTATTCTTCACAGCAACAGAGCTCAGTTAAATGCAACTGCAAGTAGGTTACTGTAAGATGTTTAAGATAAAAG
TTCTTCCAGTCAGTTTTTCTCTTAAGTGCCTGTTTGAGTTTACTGAAACAGTTTACTTTTGTTCAATAAAGTTTG
TATGTTGCATTTAAAAAAAAAAAAAAAAA

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FIGURE 371

MAHKQIYYSDKYFDEHYEYRHVMLPRELSKQVPKTHLMSEEEWRRRLGVQQSLGWVHYMIHEPEPHILLFRRPLPK
DQQK

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FIGURE 372

GAATTCCCAAACGTGCACAGGGGAGTGAGGGCAGGGCGCTCGCAGGGGGCACGCAGGGAGGGCCCAGGGCGCCAG
GGAGGCCGCGCCGGGCTAATCCGAAGGGGCTGCGAGGTCAGGCTGTAACCGGGTCAATGTGTGGAATATTGGGGG
GCTCGGCTGCAGACTTGGCCAAATGGACGGGACTATTAAGGAGGCTCTGTCGGTGGTGAGCGACGACCAGTCCCT
CTTTGACTCAGCGTACGGAGCGGCAGCCCATCTCCCCAAGGCCGACATGACTGCCTCGGGGAGTCTTGACTACGG
GCAGCCCCACAAGATCAACCCCTCCCACCACAGCAGGAGTGGATCAATCAGCCAGTGAGGGTCAACGTCAAGCG
GGAGTATGACCACATGAATGGATCCAGGGAGTCTCCGGTGGACTGCAGCGTTAGCAAATGCAGCAAGCTGGTGGG
CGGAGGCGAGTCCAACCCCATGAACTACAACAGCTATATGGACGAGAAGAATGGCCCCCTCCTCCCAACATGAC
CACCAACGAGAGGAGAGTATCGTCCCCGAGACCCACACTGTGGACACAGGAGCATGTGAGGCAATGGCTGGA
GTGGGCCATAAAGGAGTACAGCTTGATGGAGATCGACACATCCTTTTTCCAGAACATGGATGGCAAGGAACTGTG
TAAAATGAACAAGGAGGACTTCTCCGCGCCACCACCTCTACAACACGGAAGTGCTGTTGTACACCTCAGTTA
CCTCAGGGAAAGTTCACTGCTGGCCTATAATACAACCTCCCACACCGACCAATCCTCACGATTGAGTGTCAAAGA
AGACCCCTCTTATGACTCAGTCAGAAGAGGAGCTTGGGGCAATAACATGAATTCTGGCCTCAACAAAAGTCTCTC
CCTTGAGGGGCACAAACGATCAGTAAGAATACAGAGCAACGGCCCCAGCCAGATCCGTATCAGATCCTGGGGCC
GACCAGCAGTCGCCTAGCCAACCTGGAAGCGGGCAGATCCAGCTGTGGCAATCCTCCTGGAGCTGCTCTCCGA
CAGCGCCAACGCCAGCTGTATCACCTGGGAGGGGACCAACGGGGAGTTCAAATGACGGACCCCGATGAGGTGGC
CAGGCGCTGGGGCGAGCGGAAAAGCAAGCCCAACATGAATTACGACAAGCTGAGCCGGGCCCTCCGTTATTACTA
TGATAAAAACATTATGACCAAAGTGCACGGCAAAAGATATGCTTACAAATTTGACTTCCACGGCATTGCCAGGC
TCTGCAGCCACATCCGACCGAGTCGTCCATGTACAAGTACCCTTCTGACATCTCCTACATGCCTTCTTACCATGC
CCACCAGCAGAAGGTGAACCTTTGTCCCTCCCCATCCATCCTCCATGCCTGTCACTTCTCCAGCTTCTTTGGAGC
CGCATCACAATACTGGACCTCCCCACGGGGGAATCTACCCCAACCCCAACGTCCCCGCCATCTAACACCCA
CGTGCTTCACACTTAGGCAGCTACTACTAGAAAGCTTCTTCTAGCTGAAGCCCATCCTGCACACTTACTGGATGC
TTTGGACTCAACAGGACATATGTGGCCTTGAAGGGAAGACAAAACCTGGATGTTCTTTCTTGTGGATAGAACCTT
TGTATTTGTTCTTTAAAAACATTTTTTTTTAATGTTGGTAACTTTTGCTTCTCTACCTGAACAAAGAGATGAATA
ATTCCATGGGCCAGTATGCCAGTTTGAATTCTCAGTCTCCTAGCATCTTGTGAGTTGCATATTAAGATTACTGGA
ATGGTTAAGTCATGGTTCTGAGAAAGAAGCTGTACGTTTTCTTTATGTTTTTATGACCAAAGCAGTTTCTTGTCA
ATACACGGGGTTCACTATGACACAGAATCATGGACTTAACCCGTCATGTTCTGGTTTGAGATTTAGTGACAAATA
GAGGTGGGAAGCTTATAATCTAATTTTAGGAGGACCAATTCAGCGGATGGCAACTGGAACATTGATTGTAAGGC
CAGTGAAGTTTTACCCAACTGGAATTTGATGGAAAGAAGGTTTGTGTGTTTAAGACGCCAAGGGCATTGCAGAA
TCCCTCTCAGTGGACAGTATGCACTCAGCTGACCACTCTCTCTAGAAATAGTCAAGATATGAACTAAGAAATTTT
AATGCAAAATACATACATTCTGAAAGACGGGGAATTAAATTACTAATTTTTTTTTTTTAAATGATGACAGTGGTC
CCAGAACTTGAAAAAGTTGTAGGGATTTCTAAACTCAAGCAGATTCGCAAGTGCTGTGCGCTTGTGACACCATCA
GACCAGGGCCAACCAATCAGAAGGCAACTTACTGTATAAATTATGCAGAGTTATTTTCCTATATCTCACAGTATT
AAAAAATAAATAATTAAAAATTAAGAATAAATAAACGAGTTGACCTCGGTCACAAAAGCAGTTTTACTATCGAAT
CAATCGCTGTTATTTTTTTTTAATGTAATTTGTACATCTTTTTTCAATCTGTACATTTGGGCTGTCTTGTATGTT
TTTATGCTCCTTTTTTAAAAAGCATAATATGCCTATAGCTGAAAAGGAAACAGGGCTGTTTAAGTCACTGACTTAT
GAGAAAGCAAAGCACTGGTACAGTTATTTAACAGGCATACACAAGCAGGGAAAAGATAATCCATTTAGATCTTTA
ATGCTTTGGAAATGCGTGTAACAGTACTGCAATAATCACAGCTCTGGGAAAAACAACGAACTTTCCCTTGTGGA
GAGGAGGGATTTTCTGCTCTATATAAGCAACATATTTTTAGACATTAAATATATATAATTTTGCAGGTAATTG
TTGACTTTTTTAACTATATTAAGTGTTAAGCTGACAACCTGTCAAAGAAGACCATGTTGTAAATAATTTGACTAA
ATAAATGGTTCTTCTCTCAAAAAAAAAAAAAA

FIGURE 373

MDGTIKEALSVVSDDQSLFDSAYGAAAHLPKADMTASGSPDYGQPHKINPLPPQQEWINQPVRVNVKREYDHMNG
SRESPVDCSVSKCSKLVGGGESNPMNYNSYMDEKNGPPPNMTTNERRVIVPADPTLWTQEHVRQWLEWAIKEYS
LMEIDTSFFQNMDGKELCKMNKEDFLRATTLYNTEVLLSHLSYLRESSLLAYNTTSHTDQSSRLSVKEDPSYDSV
RRGAWGNMNSGLNKSPPPLGGAQTISKNTEQRPQDPYQILGPTSSRLANPGSGQIQLWQFLLELLSDSANASCI
TWEGTNGEFKMTDPDEVARRWGERKSKPNMNYDKLSRALRYYYDKNIMTKVHGKRYAYKFDHFGIAQALQPHPT
SSMYKYPDISYMP SYHAHQKVNFVPPHPSSMPVTSSSFFGAASQYWTISPTGGIYPNPVPRHPNTHVPSHLGS
YY

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FIGURE 374A

CGGCGCGGGTGTGAGAGCGGTGTGGTAGGTGTTGTAGCCGCTATGGTGAAGTTCGCTTTGTAGCGGCCCCGGCT
AGAGAGTTGGCCTGTTCCCTGCCTTTGTGACCCGGAGGAGCTTTTGGGGGTGCGTCAAGCCCCTGGCCTGAGGCA
GCGAACTGGTTTGTGGCCTGTTTGATTCTGTGAGAGGTTTGTCTGACCCAAGACAGTATCGAAAATGCATATTAA
GTCAATTATTCTAGAGGGATTCAAGTCCTATGCTCAGAGGACCGAAGTCAATGGTTTTGACCCCCTCTTCAATGC
TATCACTGGCTTAAATGGTAGTGGGAAATCCAACATATTGGACTCCATCTGCTTTTTACTGGGCATCTCCAACCT
GTCTCAGGTTCTGGGCTTCTAATTTACAAGATTTAGTTTACAAAAATGGGCAGGCTGGTATTACCAAAGCCTCTGT
GTCAATCACTTTTGATAATTCTGACAAAAAGCAAAGTCCTTTAGGATTTGAGGTTTCATGATGAAATCACAGTAAC
AAGGCAGGTGGTTATTGGTGGTAGAAATAAATATTTAATCAATGGAGTCAATGCCAACAACACCAGAGTACAGGA
TCTCTTCTGTTCTGTTGGCCTTAATGTTAACAACCCCTCACTTTCTCATCATGCAGGGCCGAATTACAAAAGTATT
GAATATGAAACCACCAGAGATTTTATCCATGATAGAAGAAGCAGCTGGAACCAGGATGTATGAATACAAAAAAT
AGCTGCACAGAAAACTATAGAAAAAAGGAGGCTAAGCTGAAAAGAAATTAAGACGATACTTGAAGAAGAGATTAC
TCCAACCATTCAAAAAATTAAAAGAGGAAAGATCGTCCTACTTGGAGTACCAAAAAGTAATGAGAGAAATAGAACA
TTTGAGTCGTTTATATATTGCTTATCAGTTTTTGTCTGGCTGAAGATACCAAAGTACGCTCAGCTGAGGAATTAAA
AGAAATGCAAGATAAAGTTATAAAGCTTCAGGAAGAATTGTCTGAGAATGATAAAAAAATAAAGCACTTAATCA
TGAAATAGAAGAATTGGAAAAAGAAAAGATAAGGAACTGGAGTTATACTTCGATCTTTAGAAGATGCTCTTGC
AGAGGCTCAGCGAGTTAATACTAAATCTCAAAGCGCATTTGATCTCAAGAAGAAAAATCTGGCATGTGAGGAAAG
CAAACGCAAAGAGCTGGAAAAAATATGGTTGAGGACTCAAAAACTTTAGCAGCAAAGGAAAAAGAGGTTAAAAA
GATAACAGATGGACTGCATGCCCTTCAAGAAGCAAGTAATAAAGATGCTGAAGCTCTGGCAGCTGCACAGCAGCA
CTTCAATGCTGTTTCCGCTGGCCTGTCCAGTAATGAAGATGGAGCAGAAGCAACTCTTGCTGGTCAAATGATGGC
CTGTAAAAATGATATAAGTAAAGCTCAGACAGAAGCCAAACAGGCTCAGATGAAGTTGAAGCATGCTCAACAGGA
ATTAAAGAATAAAACAAGCTGAAGTTAAGAAGATGGATAGTGGCTACAGGAAGGATCAAGAAGCTCTAGAAGCTGT
AAAAAGACTTAAAGAAAACTTGAAGCTGAAATGAAAAAGCTAAATTATGAAGAAAATAAAGAGGAAAGCCTTTT
GGAAAAGCGCAGGCAGCTGTCTCGTGATATTGGTAGATTGAAAAGAAACATATGAAGCTCTATTAGCCAGATTTCC
CAATCTTCGATTTGCATACAAGGATCCAGAGAAGAACTGGAATAGAAATTGTGTGAAGGACTTGTGGCTTCTCT
GATTAGTGTGAAAGACACTTCTGCAACCACAGCTTTAGAATTAGTGGCTGGAGAACGACTCTACAATGTTGTAGT
AGACACAGAAGTTACTGGTAAAAAGCTACTAGAAAGGGGGGAACTGAAACGTCGATACACTATAATTCCACTCAA
TAAAATTTACGCCAGATGTATTGCACCAGAACTCTGAGAGTTGCTCAGAATCTTGTGGCCCTGACAACGTTCA
TGTGGCTCTTTCCTTGGTTGAATATAAACCAGAACTTCAGAAAGCAATGGAGTTTGTCTTTGGAACAACATTTGT
TTGTGACAATATGGATAATGCCAAAAAAGTGGCCTTTGATAAGAGGATAATGACTAGAACTGTAACCTCTCGGAGG
TGATGTGTTTGATCCTCATGGGACATTGAGTGGAGGTGCTCGATCCCAGGCAGCTTCCATTTTAACCAAGTTTCA
AGAACTCAAAGATGTTCAAGATGAACCTGAGAATCAAAGAGAATGAGCTGCGGGCTCTAGAAGAGGAATTAGCAGG
TCTTAAAAACACTGCTGAAAAGTATCGCCAACATAAACAGCAGTGGGAGATGAAAACCTGAAGAGGCAGATTTATT
ACAAACCAAGCTCCAGCAAAGCTCATATCACAAGCAACAAGAAGAATTAGATGCCCTTAAAAAACCAATTGAGGA
AAGTGAGGAGACTTTGAAAAACACTAAAGAAATCCAAAGAAAAGCAGAAGAAAAATATGAAGTATTGGAAAATAA
AATGAAAAATGCAGAAGCTGAAAGAGAGCGAGAAGTGAAGATGCTCAGAAAAAACTGGATTGTGCCAAAAACAA
GGCAGATGCATCTAGCAAGAAGATGAAAGAAAAACAACAGGAAGTTGAAGCTATCACTCTGGAACCTGGAAGAGCT
CAAGAGAGAGCATACATCTTACAAACAACAGCTTGAAGCTGTAAATGAAGCTATCAAATCCTATGAAAGTCAGAT
TGAAGTAATGGCAGCTGAGGTGGCTAAAAATAAGGAGTCAGTAAATAAAGCTCAAGAAGAGGTGACCAAGCAAAA
AGAGGTGATAACAGCCCAAGACACTGTAATTAAGCTAAATATGCAGAAAGTGGCAAAACACAAGGAGCAAAAACAT
GATTCTCAGCCTTAAAAATTAAGGAATTAGACCACCACATCAGCAAAACATAAACGGGAGGCTGAAGATGGTGTCTG
AAAGGTATCCAAAATGTTGAAAGATTATGACTGGATTAATGCAGAGAGACACCTCTTTGGCCAACCCAATAGTGC
CTATGATTTTCAAACTAACAACCTTAAAGAAGCTGGTCAGAGACTTCAGAAGTTGCAAGAAATGAAGGAGAACT
AGGAAGAAATGTCAATATGAGAGCTATGAATGTATTGACAGAAGCTGAAGAGCGATGCAATGACTTGATGAAGAA
GAAGAGAATTGTAGAAAAATGACAAATCCAAAATTCTTACAACCTATAGAAGACCTTGACCAGAAGAAAAACCAAGC
CCTAAATATTGCATGGCAAAAGGTGAACAAGGACTTTGGGTCTATTTTTTCTACTCTTTTGCCTGGTGCTAATGC
TATGCTTGCAACCACCAGAGGGTCAAACCTGTTTTGGATGGTCTGGAGTTCAAGGTTGCCTTAGGAAATACCTGGAA
AGAAAACCTAACTGAACTTAGTGGTGGTCAGAGGCTTTAGTGGCCTTGTCATTAATACTGTCCATGCTTCTCTT
CAAACCTGCTCCAATTTATATCCTTGATGAGGTAGATGCAGCCTTGGATCTTCTCATACCCAAAACATTGGACA

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FIGURE 374B

GATGCTGCGTACTCATTTCACACATTCTCAGTTCATTGTGGTGTCACTAAAAGAAGGTATGTTCAACAATGCAAA
CGTTCTTTTCAAAACCAAGTTTGTGGATGGTGTCTTCTACAGTAGCCAGATTACTCAATGTCAAAATGGAAAGAT
TTCAAAGGAAGCAAAATCCAAGGCAAAACCACCCAAAGGAGCACATGTGGAAGTTTAACTACAAAGTTATTTCT
TCATCTTGACCTGTTTTTTTAAATGTAACTTTTAAGGACTTGAGATAACTAATTTGTTTATATACAAAAATTAA
TGTTACTGTGTTACTTAACCCATGTTTTCTCTTTATATAATCACTTATCGCTTACAAATGAGCATATATTCCTCA
TCTCTTAACTAGTCTAATTATGGTCCAATTATTGTGGTTGTGATTTTATGCATATCCATCAAAATGTTTTTTTC
TTATGCGGGTCTTTTATATATTAGGGATCCTGAGATACCCGATTCTATATGTAAAAGCTAATATACAAAAAGCA
GATTAAATTACATGATAAATGTAGCTGAAAAAAAAAAAAA

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FIGURE 375

MHIKSIILEGFKSYAQRTEVNGFDPLFNAITGLNGSGKSNILDSICFLLGISNLSQVRASNLQDLVYKNGQAGIT
KASVSITFDNSDKKQSPGLGEVHDEITVTRQVVIGGRNKYLINGVNANNTRVQDLFCVGLNVNPHFLIMQGRI
TKVLNMKPPEILSMIEEAAGTRMYEYKKIAAQKTIEKKEAKLKEIKTILEEEITPTIQKLKEERSŠYLEYQKVMR
EIEHLSRLYIAYQFLLAEDTKVRSAEELKEMQDKVIKLQEELSENDKKIKALNHEIEELEKRKDKETGVILRSLE
DALAEAQRVNTKSQSADFLLKKKNLACEESKRKELEKNMVEDSKTLAAKEKEVKKITDGLHALQEASNKDAEALAA
AQQHFNAVSAGLSSNEDGAEATLAGQMMACKNDISKAQTEAKQAQMKLKHAQQELKNKQAEVKKMDSGYRKDQEA
LEAVKRLKEKLEAEMKKLNYEENKEESLLEKRRQLSRDIGRLKETYEALLARFPNLRFAVKDPEKNWNRNCVKGL
VASLISVKDTSATTALELVAGERLYNVVVDTEVTGKKLLERGELKRRYTIIPLNKISARCIAPETLRVAQNLVGP
DNVHVALSLVEYKPELQKAMEFVFGTTFVCDNMDNAKKVAFDKRIMTRTVTLGGDVFDPHGTLSSGGARSQAASIL
TKFQELKDVQDELRIKENELRALEEEELAGLKNTAEKYRQLKQQWEMKTEEADLLQTKLQQSSYHKQQEELDALKK
TIEESEETLKNTKEIQRKAEKYEVLNKMKNAAEAERERELKDAQKKLDCAKTKADASSKKMKEKQQEVEAITLE
LEELKREHTSYKQQLEAVNEAIKSYESQIEVMAAEVAKNKESVNKAQEEVTKQKEVITAQDTVIKLNMQKWQNT
SKTMILSLKIKELDHHISKHKREAEADGAAKVSKMLKDYDWINAERHLFGQPN SAYDFKTNNPKEAGQRLQKLQEM
KEKLGRNVNMRAMNVLTEAEERCNDLMKKKRIVENDKSKILTTIEDLDQKKNQALNIAWQKVNKDFGSIFSTLLP
GANAMLAPPEGQTVLDGLEFKVALGNTWKENLTESGGQORSLVALSLILSMLLFKPAPIYILDEVDAALDLSHTQ
NIGQMLRTHFTHSQFIVVSLKEGMFNNANVLFKTKFVDGVSTVARFTQCQNGKISKEAKSKAKPPKGAHVEV

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FIGURE 376

ACTAAGACCGCAAGGCATTCAATTCCTCCTACGGTGGATGCGGACGCCGGGAGGAGAGAGCCCCAGAGAGAGGA
GCTGGGAGCGGAGGCGCAGGCAATGCTCAGCCCTGGATGTAGCTGAGAGGCTGGGAGAAGAGACGACCGCTGGAG
ACCGAGCGGCGTGGGGAAGACCTAGGGGGGTGGGTGGGGGAAGCAGACAGGAGAACACTCGAAATCAAGCGCTTT
ACAGATTATTTTATTTTGTATAGAGAACACGTAGCGACTCCGAAGATCAGCCCCAATGAACATGTCAGTGTTGAC
TTTACAAGAATATGAATTCGAAAAGCAGTTCAACGAGAATGAAGCCATCCAATGGATGCAGGAAAACCTGGAAGAA
ATCTTTCTGTTTTCTGCTCTGTATGCTGCCTTTATATTCGGTGGTTCGGCACCTAATGAATAAACGAGCAAAGTT
TGAAGTGAAGGAAGCCATTAGTGCTCTGGTCTCTGACCCTTGCACTCTCAGTATATTCGGTGTCTCTCGAACTGG
TGCTTATATGGTGACATTTTGATGACCAAAGGCCTGAAGCAGTCAGTTTGTGACCAGGGTTTTTACAATGGACC
TGTCAGCAAATTCCTGGGCTTATGCATTTGTGCTAAGCAAAGCACCCGAACCTAGGAGATACAATATTCATTATTCT
GAGGAAGCAGAAGCTGATCTTCCTGCACTGGTATCACCACATCACTGTGCTCCTGTACTCTTGGTACTCCTACAA
AGACATGGTTGCCGGGGGAGGTTGGTTTCATGACTATGAACTATGGCGTGCACGCCGTGATGTACTCTTACTATGC
CTTGCGGGCGGCAGGTTTCCGAGTCTCCCGGAAGTTTGCCATGTTTCATCACCTTGTCCTCAGATCACTCAGATGCT
GATGGGCTGTGTGGTTAACTACCTGGTCTTCTGCTGGATGCAGCATGACCAGTGTCACTCTCACTTTTCAAGACAT
CTTCTGGTCTCACTCATGTACCTCAGCTACCTTGCTCTTCTGCCATTTCTTCTTTGAGGCCTACATCGGCAA
AATGAGGAAAAACAACGAAAGCTGAATAGTGTGGAACTGAGGAGGAAGCCATAGCTCAGGGTCATCAAGAAAAAT
AATAGACAAAAAGAAAATGGCACAAGGAATCACACGTGGTGCAGCTAAAACAAAACAAAACATGAGCAAACACAAA
ACCCAAGGCAGCTTAGGGATAATTAGGTTGATTTAACCAGTAAGTTTATGATCCTTTTAGGGTGAGGACTCACT
GAGTGCACCTCCATCTCCAAGCACTGCTGCTGGAAGACCCCATTCCTCTTTATCTATCAACTCTAGGACAAGGG
AGAACAAAAGCAAGCCAGAAGCAGAGGAGACTAATCAAAGGCAAACAAAGGCTATTAACACATAGGAAAATATGT
ATTTACTAAGTGTCACATTTCTCTAAGATGAAAGATTTTTACTCTAGAACTGTGCGAGCACAACACACACAATC
CTTTCTAACTTTATGGACACTAACTGGAGCCAATAGAAAAGACAAAATGAAAGAGACACAGGGTGTATATCTA
GAACGATAATGCTTTTGCAAACTAAAGCCTTTTTAAGAAATGCCAGCTGCTGTAGACCCCATGAGAAAAGATG
TCTTAATCATCCTTATGAAAACAGATGTAAACAATATATTTCAACTAATTCATCTTCACTGCATAGCCTCAGG
CTAGTGAGTTTGCCAAAACCAAGGGGGTGAATACTTCCCCAAGATTCTTCTGGGAGGATGGAACAGTGCAGC
CCAGGTCCCATGGGGGCAGCTCCATCCAGAGCATTCTGTAGATTGAAGTGAATTTCTACTCTTAAGTGAGAT
ATGAAGTATTATCCTTTTGTTAGTTGCCCGGGCTTTTGAACAGAAGAGTAAATACAGAATTGAAAAAGATAAA
CACTCAACCAACAATGTGAAAACGGGTCTGTAGTATTTGTAAAAAGGCCCGGCCAGGACCACTGTGAGCTGG
AAAAGGGAGAAAGGCAGTGGGAAAAGAGGTGAGCCGAAGATCAATTCGACAGACAGACGGTGTGTATGCCCTCC
CTGTTTGACTTCACACACACTCATACTTTCCAAATGAAACCCACAGTATAGCGCATATTTTCGATATTTTGT
GAATTCCAAAAGGAAATCACAGGGCTGTTGAAATATTGGGGGAACACTGTGTTTCTGCATCATCTGCATTGCT
CCCCAAGCAATGTAGAGGTGTTTAAAGGGCCCTCTGCTGGCTGAGTGGCAATACTACAACAACTTCAAGGCAAG
TTTGGCTGAAAACAGTTGACAACAAAGGGCCCCCATACACTTATCCCTCAAATTTTAAAGTGATATGAAATACTTG
TCATGTCTTTGGCCAAATCAGAAGATATTCATCCTGCTTCAAGTCAGCTTCAGAAATGTTTTAAAGGGACTTTA
GCTCTGGAACCTCAAATCAATTTATTAAGAGCCATATCTTTAAAAAAAAGCTGGATAATATTATCTGTAATA
TTTCAGTCCTTTACAAGCCAAATACATGTGTCAATGTTTCTAGTATTTCAAAGAAGCAATTATGTAAAGTTGTTT
AATGTGACATAATAGTATTATAATTGGTTAAGTAGCTTAATGATTAGGCAAACCTAGATGAAAAGATTAGGGGCTT
CCACACTGCATAGATCACACGCACATAGCCACGCATACACACACAGACACACAGATGTGGGGTACACTGAATTC
AAAGCCCAAATGAATAGAAACACATTTTCTGGCTAGCAGAAAAAACAAAACAAACTGTTGTTTCTCTTTCTTG
CTTTGAGAGTGACAGTAAAGGGATTTTTTCGAATTATTTTTATATTATTTAGCTTTAATTGTGCTGTCGTTT
ATGAAACAGAGCTGCTCTGCTTTTCTGTCAGAGATGGCAAGGGCTTTTTCAGCATCTCGTTTATGTGTGGAATTT
AAAAAGAATAAAGTTTTATTCCATTCTGAAAAA

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FIGURE 377

MNMSVLTLQEYEFKQFNENAIQWMQENWKKSFLFSALYAAFIFGGRHLMNKRAKFE LRKPLVLWSLTLAVFSI
FGALRTGAYMVYILMTKGLKQSVCDQGFYNGPVSKFWAYAFVLSKAPELGDTIFIILRKQKLIFLHWYHHITVLL
YSWYSYKDMVAGGGWFMTMNYGVHAVMYSYYALRAAGFRVSRKFAMFITLSQITQMLMGCVVNYLVFCWMQHDQC
HSHFQNIWFSSLMYLSYLVLFCHFFFEAYIGKMRKTTKAE

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FIGURE 378

CGGGCACTCACCGTGTGTAGTTGGCATCTCCGCGCGTCCGGACACCCGATCCCAGCATCCCTGCCTGCAGGACTG
TTCGTGTTTCAGCTCGCGTCCCTGCAGCTGTCCGAGGTGCTCCAGTTGGAGGCTGAGGTTCCCGGGCTCTGTGCTG
AGTGGGCGGGCGGCACCGGCGGAGATGCCTGGGAAGAAGGCGCGCAAGAACGCTCAACCGAGCCCCGCGGGGCTC
CAGCAGAGCTGGAAGTCGAGTGTGCTACTCAACTCAGGAGATTTGGAGACAACTGAACTTCCGGCAGAACTTC
TGAATCTGATATCCAACTCTTCTGCTCAGGAACCTTGACTGCATCAAAAACCTGCATGAGGGGACTCCTTCAAAA
GAGTTTTCTCAGGAGGTGCACGTTTCATCAATTTGAAGAAAGACTGCATTGTAATTGAGAGGAATGTGAAGGTGC
ATTCATGGGTGCCCTTGGAAACGGAAGATGGAATACATCAAAGTGAATTTCTGTTCAAGTTTTCCAGATTATCA
TTCTTTGGGATGAGAGAACATTATAAAACCACTTTGTTTTATTTTAAAGCAAGAATGGAAGACCCTTGAAAATAAA
GAAGTAATTATTGACACATTTCTTTTTTACTTAGAGAATCGTTCTAGTGTTTTTGCCGAAGATTACCGCTGGCCT
ACTGTGAAGGTAGATGACCTGTGATTAGACTGGGCGGCTGGGGAGAAAACAGTTCAGTGCATTGTTGTTGTTGCTG
TTTTTGGTGTTTTTGCTTTTCAGTGCCAACCTCAGCACATTGTATATGATTCGGTTTATACATATTACCTTGTTATA
ATGAAAAAACTCATTCTGAGAACACTGAAATGTTATACTCAGTGTTGATTTCTTCGGTCACTACACAACGTAAAA
TCATTTGTTTTCTTTTGACTCAAATTTGTATTGCTTCTGTTTCAGATGATCTTTCATTCAATGTGTTCTGTTGGGCG
TTACTAGAACTATGGAAACTGGAAAATAACTTTGAAAAAATTGGATAAAGTATAGGAGGGTTACTTGGGGCCA
GTAAATCAGTAGACTGAACATTCAATATAATAAAGAACATGGGGATTTTGTATAACCAGGGATAATAAAAAGAA
AAAGAAGTTAATTTTTAATTGATGTTTTTGAACCTTAGTAGAACAAATATTCAGAAGTAAGTTGATAAGATATGA
ATGTTTCTAAAGAGTTTCTAAAGGTTGAAATGCTCCTTGTCACATTAGTGTGCATCCTACAAAAGTGATCTCT
TAATGTAAATTAAGAATATTTTCATAATTGGAATATACTTTTCTAAAAAAAAGGAACAGTTAGTTCTCATCTAG
AATGAAAGTTCCATATATGCATTGGTGAATATATATGTATACACATACTTACATACTTATATGGGTATCTGTATA
GATAATTTGTATTAGAGTATTATATAGCTTCTTAGTAGGGTCTCAAGTAAGTTCATTTTTTTTTATCTGGGCTATA
TACAGTCTCAAATAAATAATGTCTTGATTTTATTTTCAGCAGGAATAATTTTATTTATTTGCTATTTATAATT
AAAGTATTTTTCTTTAGTTTGAAATGTGTATTAAAGTTACATTTTGTAGTTACAAGAGTCTTATAACTACTTGAA
TTTTTAGTTAAATGTCTTAATGTAGGTTGTAGTCACTTTAGATGGAAAATTACCTCACATCTGTTTTCTTCAGT
ATTACTTAAGATTGTTTATTTAGTGGTAGAGAGATTTTTTTTTTTCAGCCTAGAGGCAGCTATTTTACCATCTGGT
ATTTATGGTCTAATTTGTATTTAAACATATGCACACATATAAAAAGTTGATACTGTGGCAGTAACTATTAAAAGT
TTTCACTGTT

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FIGURE 379

MPGKKARKNAQPSAPAPAELEVECATQLRRFGDKLNFRQKLLNLISKLFCSGT

FIGURE 380

CGGGCACTCACCGTGTGTAGTTGGCATCTCCGCGCGTCCGGACACCCGATCCCAGCATCCCCTGCCTGCAGGACTG
TTCGTGTTTCAGCTCGCGTCCCTGCAGCTGTCCGAGGTGCTCCAGTTGGAGGCTGAGGTTCCCGGGCTCTGTGCTG
AGTGGGCGGCGGCACCGGCGGAGATGCCTGGGAAGAAGGCGCGCAAGAACGCTCAACCGAGCCCCGCGGGGCTC
CAGCAGAGCTGGAAGTCGAGTGTGCTACTCAACTCAGGAGATTTGGAGACAACTGAACTTCCGGCAGAACTTC
TGAATCTGATATCCAACTCTTCTGCTCAGGAACCTTGACTGCATCAAAAACTTGCATGAGGGGACTCCTTCAAAA
GAGTTTTCTCAGGAGGTGCACGTTTCATCAATTTGAAGAAAGACTGCATTGTAATTGAGAGGAATGTGAAGGTGC
ATTCATGGGTGCCCTTGGAAACGGAAGATGGAATACATCAAAGTGAATTTCTGTTCAAGTTTTCCAGATTATCA
TTCTTTGGGATGAGAGAACATTATAAAACCACTTTGTTTTATTTTAAAGCAAGAATGGAAGACCCTTGAAAATAAA
GAAGTAATTATTGACACATTTCTTTTTTACTTAGAGAATCGTTCTAGTGTTTTTGCCGAAGATTACCGCTGGCCT
ACTGTGAAGGTAGATGACCTGTGATTAGACTGGGCGGCTGGGGAGAAACAGTTCAGTGCATTGTTGTTGTTGCTG
TTTTTGGTGTTTTGCTTTTCAGTGCCAACTCAGCACATTGTATATGATTTCGGTTTATACATATTACCTTGTTATA
ATGAAAAAATCATTCTGAGAACTGAAATGTTATACTCAGTGTTGATTCTTCGGTCACTACACAACGTAAAA
TCATTTGTTTTCTTTTGACTCAAATTGTATTGCTTCTGTTTCAGATGATCTTTTCATTCAATGTGTTCCCTGTTGGGCG
TTACTAGAACTATGGAACACTGGAATAAATTTGAAAAAATTGGATAAAGTATAGGAGGGTACTTGGGGCCA
GTAAATCAGTAGACTGAACATTCAATATAATAAAGAACATGGGGATTTTGTATAACCAGGGATAATAAAAAGAA
AAAGAAGTTAATTTTTAATTGATGTTTTTGAACCTTAGTAGAACAAATATTCAGAAGTAACCTTGATAAGATATGA
ATGTTTCTAAAGAGTTTCTAAAGGTTGAAATGCTCCTTGTCACATTAGTGTGCATCCTACAAAAGTGATCTCT
TAATGTAAATTAAGAATATTTTCATAATTGGAATATACTTTTCTTAAAAAAAAGGAACAGTTAGTTCTCATCTAG
AATGAAAGTTCCATATATGCATTGGTGAATATATATGTATACACATACTTACATACTTATATGGGTATCTGTATA
GATAATTTGTATTAGAGTATTATATAGCTTCTTAGTAGGGTCTCAAGTAAGTTCATTTTTTTTTATCTGGGCTATA
TACAGTCCTCAAATAAATAATGTCTTGATTTTATTTTCAGCAGGAATAATTTTATTTATTTTGCCTATTTATAATT
AAAGTATTTTTCTTTAGTTTGAAATGTGTATTAAAGTTACATTTTTTGAGTTACAAGAGTCTTATAACTACTTGAA
TTTTTAGTTAAATGCTTAATGTAGGTTGTAGTCACTTTAGATGGAAAAATTACCTCACATCTGTTTTCTTCAGT
ATTACTTAAGATTGTTTATTTAGTGGTAGAGAGATTTTTTTTTTTCAGCCTAGAGGCAGCTATTTTACCATCTGGT
ATTTATGGTCTAATTTGTATTTAAACATATGCACACATATAAAAGTTGATACTGTGGCAGTAACTATTAAAAGT
TTTCACTGTT

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FIGURE 381

MPGKKARKNAQPSPARAPAELEVECATQLRRFGDKLNFRQKLLNLISKLFCSGT

FIGURE 382

AGCCTGCCCTTGGGGCTGCCACGCCCTTCAGATCCTTTGCTCCGGAGAGAGACCTGTCCGAGCAGAGGCCTG
GACTACATCTCCCGGCGTGCTGGCAGTGTGGTGGCCTCTGTGCGCCGTCTGCACTCGTTGCAGGCGACG**ATGCA**
GAGGGCTGTAAGTGTGGTGGCCCGTCTGGGCTTTGCGCTGCAGGCATTCCCCCGGCCCTTGTGTCTGCTCACTTAG
TTGCGCACAGGAGGTGCTCCGAGGACACCGCTCTATGACTTCCACCTGGCCACGGCGGGAAAATGGTGGCGTT
TGCGGGTTGGAGTCTGCCAGTGCAGTACCGGGACAGTCACACTGACTCGCACCTGCACACAGCCAGCACTGCTC
GCTCTTTGACGTGTCTCATATGCTGCAGACCAAGATACTTGGTAGTGACAGGTGTAAGCTGATGGAGAGTCTAGT
GGTTGGAGACATTGCAGAGCTAAGACCAAACAGGGGACACTGTCGCTGTTTACCAACGAGGCTGGAGGCATCTT
AGATGACTTGATTGTAACCAATACTTCTGAGGGCCACCTGTATGTGGTGTCCAACGCTGGCTGCTGGGAGAAAGA
TTTGGCCCTCATGCAGGACAAGGTGAGGGAGCTTCAGAACAGGGGAGAGATGTGGGCCTGGAGGTGTTGGATAA
TGCCCTGCTAGCTCTGCAAGGCCCACTGCAGCCCAGGTACTACAGGCCGGCGTGGCAGATGACCTGAGGAACT
GCCCTTCATGACCAAGTGTGTGATGGAGGTGTTTGGCGTGTCTGGCTGCCGCGTGACCCGCTGTGGCTACACAGG
AGAGGATGGTGTGGAGATCTCGGTGCCGGTAGCGGGGGCAGTTACCTGGCAACAGCTATTCTGAAAAACCCAGA
GGTGAAGCTGGCAGGGCTGGCAGCCAGGGACAGCCTGCGCCTGGAGGCAGGCCTCTGCCTGTATGGGAATGACAT
TGATGAACACACTACACCTGTGGAGGGCAGCCTCAGTTGGACACTGGGGAAGCGCCGCCGAGCTGCTATGGACTT
CCCTGGAGCCAAGGTCATTGTTCCCCAGCTGAAGGGCAGGGTGCAGCGGAGGCGTGTGGGGTTGATGTGTGAGGG
GGCCCCCATGCGGGCACACAGTCCCATCCTGAACATGGAGGGTACCAAGATTGGTACTGTGACTAGTGGCTGCCC
CTCCCCCTCTCTGAAGAAGAATGTGGCGATGGGTTATGTGCCCTGCGAGTACAGTCGTCCAGGGACAATGCTGCT
GGTAGAGGTGCGGCGGAAGCAGCAGATGGCTGTAGTCAGCAAGATGCCCTTTGTGCCCACAACTACTATACCCT
CAAG**TGAA**AGCTGGCTCAGGGTGGGGCTGTCCCTTCAGGAGTTTTGCCCTACAAGGGGTTAGTCAAGAAGCTGA
GGCAGAACTCACTGGGGGTGGGCAGTTAAGGTGGAGGCTGATTCTAATTGTCTGGTTGAGGGGCCACACCACCTA
TTCCCCCACCTAACTCATGCCATTCCAGCTTCCTTCAGGACCCTGCTTCTGAGTGACGGACCAGCTCACACAAT
GTCTTGTTTCAGTCCATGATCCCACTGACCTACTCTTGCTGCTGGAGGGTAATGAGAAGCTTTGGTTCTGCCAT
CTCTCCCACTCTGCCAGGTGCTGGCTGTGGAGCAAAGGCTCACCTTTGTGGAGAGGATAAAACCTKCCCAACCTA
CCTCACCATGGTTTTTTCATTGCAAAGGGTAATAACATGGGCAGTGGGACTTAGGCTACCCCTCCAGTTTGC
TTTCCGTAAATGCAAATTGTCCTTACTGCAAGTCAGGAATGATTGCTGACTCACAGTAGGGCTGCTATGCCTGTG
TGTAACCTTGGGGATGGCTGAGGGAACATAGACTCACTCTTCCACATTCCCAAGTTGGTCTAGTGTGCTGCCAG
TAGCAAACCATGGCAGACTACACCCTATTCTGAGTTCCAGGGCTGCTGTAGGGCAGGGTGGGCTTCTCCCCAGA
CTTGCTTACCCTGGGCTGATCTTTGCCCTGGTATGCATTAATGGACTCCACTGAATCCTGAAAAAAAAATTAA°
ACTTCCTTCTTACTTGCCA

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FIGURE 383

MQRAVSVVARLGFR LQAFFPALCRPLSCAQEVLRRTP LYDFHLAHGGKMVAFAGWSLPVQYRDSHTD SHLHTRQH
CSLFDVSHMLQTKILGSDRCKLMESLVVGDIAELRPNQGTLSLFTNEAGGILDDLIVTNTSEGHLYVVS NAGCWE
KDLALMQDKVRELQNQGRDVGLEVL DNALLALQGPTAAQVLQAGVADDLRKLPFMTSAVMEVFGVSGCRVTRCGY
TGEDGVEISVPVAGAVHLATAILKNPEVKLAGLAARDSLRLEAGLCLYGNDIDEHTTPVEGSLSWTLGKRRRAAM
DFPGAKVIVPQLKGRVQRRRVGLMCEGAPMRAHSPILNMEGTKIGTVTSGCPSPSLKKNVAMGYVPCEYSRPGTM
LLVEVRRKQQMAVVSKMPFVPTNYITLK

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FIGURE 384

AGCGCAGCACTCCCCGCTCGTTGGCCCGGGTATCCAGCGCGGACCCACGCGATACGCTGACGCCCCGACGCCGA
TCCGGCCGAGCCAAGTAAGGGGGACGGCCCGAGACGGAGAAGGGAGAGAGTGGGAGTTTCCCAGCCCGCAGAACT
TTCGAAGTTGAGAAGAGAACCCCTGGAACGTGCGCTCAGCACTGGGATTTTCTGGACTCAACGATGACTCTGAAT
AATGTCACCATGCGCCAGGGCACTGTGGGCATGCAGCCACAGCAGCAGCGCTGGAGCATCCAGCTGATGGCAGG
CATCTGATGGTCCAGAAAGAGCCCCACCAGTACAGCCACCGCAACCGCCATTCTGCTACCCCTGAGGACCACTGC
CGCCGAAGCTGGTCCTCTGACTCCACAGACTCAGTCATCTCCTCTGAGTCAGGGAACACCTACTACCGAGTGGTG
CTCATAGGGGAGCAGGGGGTGGGCAAGTCCACTCTGGCCAACATCTTTGCAGGTGTGCATGACAGCATGGACAGC
GACTGCGAGGTGCTGGGAGAAGATACATATGAACGAACCCCTGATGGTTGATGGGGAAAGTGCAACGATTATACTC
CTGGATATGTGGGAAAATAAGGGGGGAAAATGAATGGCTCCATGACCACTGCATGCAGGTGCGGGGACGCATACCTG
ATTGTCTACTCAATCACAGACCGAGCGAGCTTCGAGAAGGCATCTGAGCTGCGAATCCAGCTCCGCAGGGCCCCG
CAGACAGAGGACATTCCCATAATTTTGGTTGGCAACAAAAGTGACTTAGTGCGGTGCCGAGAAGTGTCTGTATCA
GAAGGGAGAGCCTGTGCAGTGGTGTTTACTGCAAGTTTCATCGAGACCTCTGCAGCTGTCCAGCACAAACGTGAAG
GAGCTGTTTGAGGGCATTGTGCGACAGGTGCGCCTTCGGCGGGACAGCAAGGAGAAGAAATGAACGGCGGCTGGCC
TACCAGAAAAGGAAGGAGAGCATGCCCAGGAAAGCCAGGCGCTTCTGGGGCAAGATCGTGGCCAAAAACAACAAG
AATATGGCCTTCAAGCTCAAGTCCAAATCCTGCCATGACCTCTCTGTACTCTAGGAACCCAGGGTCACCCAGATG
TCCCTTTGATGGCCCTTGTTGAAGGCCATTGGGACCAATAATCTATATTAGATTGAATACTTAAGTTAGATGTGG
TTTCCCCCATTGTAGCAGGGAGCTAGCGTATTAGCCTTGTGGGCAACATGATGCATGGGAAATGAAAGATTTTG
TAAAAAGTCAGTATTTATTTCCAGGAAAAGCCTGACCTTGCTATTTGAACACCCAAGACTCTTTAGAGGATGTGT
TTGGTGTTACATGTGTTTCTTCTATTTTGGATAGTAGGGAAGTAAAGCTTACAAAGAATGCCTAGAACAAGAAC
TTTTCATCATTAATAATTTTCCCAGTGTTCTGATATGTGACTTTGAGGCCAATGAGTCATAAACAATATAAGA
AAGCTGTCAATGAGTTTCTTCAAAGGAGGGGAAAACCTTTCTACGAATCTAAGATCCATGGAGCTAGAATTGTAGAA
CTAGGCTCATCAGAATCGTGACTATTATTGCTCCATCAAACCTGTGAAAAGAAATGATGTGGACCTTGCTGGAAAC
AAAGGCTTAGCAAAACAATTTTGTTCATGCCCACCGAGACATATAGAATTGGGAACTGATACATGTGTCCCTTA
TAGGCTCAAAAATTATATCTTACAATTTCTTATTTAGGGGAAATTTATTTGAATCAGATTCTATTTAGTCAAACC
ACCTTTTATGTTTTATTATTTTGAATTCATGGAGCCATCATAAAAAATTTTTTAAATCAGAATTATTGATACC
CTGTAGTGCAAAATGTCAATTTTAAATGTATAATCAGAAGTCTGAATTTTCATAAAACATATAGCATAAAAAACCT
CCAGTACTTTGGTTGACCTTGATGTGTCAGCTCTGCTCTATTTATTATTATTTTGCAAAATAACCATTTTAAAC
ATTTGATAAAGCATATTTATGAACATATTTCTTAATAAGAAAAATATCCATTTTATTACCATTTTCTATCTTTT
CAAAATATGCAAGTTTTTACCTATATGTCTTATAATAAAGAAATAAAATATTTGA

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FIGURE 385

MTLNNVTMRQGTVGMQPQQQRWSIPADGRHLMVQKEPHQYSHRNRHSATPEDHCRRSWSSDSTDVISSESGNTY
YRVVLIGEQQGVGKSTLANIFAGVHDSMDSCEVLGEDTYERTLMVDGESATIILLDMWENKGENEWLHDHCMQVG
DAYLIVYSITDRASFEEKASELRIQLRRARQTEDIPIILVGNKSDLVRCREVSVSEGRACAVVFDCKFIETSAVQ
HNVKELFEGIVRQVRLRRDSKEKNERRLAYQKRKESMPRKARRFWGKIVAKNNKNMAFKLKSCHDLSVL

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FIGURE 386A

ACGTTGCCCGGGATGCGGACAGGTTCCGCCGCTCCAGCGCCCCATCCTGAGCCGATTATCTGCAATTATGAAAT
 GAAGTAACTCAAGATGAGCAAGTTAAAAGTGATACCAGAAAAAGCCTTACCAATAATTCTAGGATCGTAGGACT
 CCTGGCTCAACTGGAGAAGATCAATGCTGAGCCTTCAGAATCAGACACTGCCGATATGTTACATCAAAAATTCT
 TCATCTGGCTCAGAGTCAAGAAAAACAAGGAGAGAAATGACAGCCAAAGTTCTACAGGAATGGAAATTCTGCT
 GTCAACATTAGAGAACACAAAAGATCTTCAAACCTACACTTAATATCTTAAGCATTCTTGTTGAGCTGGTGTGACG
 TGGTGGAGGTCGAAGAGTGAGTTTCTTAGTCACCAAAGGTGGTTCACAAATATTGTTGCAGTTACTTATGAATGC
 CAGCAAAGAATCTCCCCACATGAGGACTTAATGGTACAGATTCAATCTATTCTTGCAAAGATTGGACCAAAAGA
 TAAAAAATTTGGAGTAAAGGCTAGAATTAATGGGGCTCTGAATATAACCCTGAATTTGGTCAAGCAGAATTTGCA
 GAATCATCGCTTGGTTCTACCTTGCTTTCAGCTTTTACGAGTATATTCTGCCAACTCTGTGAATTCAGTATCCTT
 AGGGAAAAATGGAGTTGTGGAAGTATGTTTAAATCATTGGACCATTTAGTAAGAAGAATTCCAGTCTTATAAA
 GGTGCTTTAGACACTCTTGCTGCATTGCTAAAAATCAAAAACAAATGCCAGGAGAGCTGTAGACAGAGGATATGT
 CCAAGTGCTTTTAAACAATTTATGTAGATTGGCACCGCCATGATAACCGGCATAGAAACATGCTCATTTCGGAAAGG
 AATTTTACGGAGTTTAAAAAGTGTTACAAACATCAAGTTGGGAAGAAAAGCATTATTGATGCCAATGGGATGAA
 AATTCTGTATAATACTTCGCAATTGCCTGTTATTCTGTGACTGGTCTGTGGCTCAGCTCTACAGCTTACCTCC
 TGAAGTGGATGACGTAGTAGATGAAAGTGATGACAACGATGATATTGATGTAGAAGCTGAAAACGAAACTGAGAA
 TGAAGATGACCTAGATCAAAATTTTAAAGATGATGATATTGAAACAGATATTAACAAACTAAAACCCCCAGCAAGA
 ACCGGGACGAACAATAGAAGATCTAAAAATGTATGAACACCTTTTCCCTGAGCTTGTTGATGATTTTCAGGACTA
 TGATTTAATCTCAAAGAACCAAAGCCTTTTGATTTGAGGGAAGAGTACGTGGTCTATTGTTGTTTCTACGGC
 AGGCGAGGGAACATCTGGGAATTCTGGCAATTTAAGAAAAGTTGTAATGAAGGAGAACATATCTTCTAAAGGAGA
 TGAAGGTGAAAAGAAGTCTACCTTTATGGATCTAGCAAAAGAAGATATTAAAGATAATGATAGAACATTACAACA
 GCAGCCAGGTGATCAAAATAGAACTATTTTCATCAGTCCATGGTTTAAACAATGATATTGTAAAGGCCTTGGACCG
 AATTACATTGCAGAATATTCTTCTCAAACAGCCCCAGGTTTTACTGCAGAAATGAAGAAGGACTGCAGTCTTCC
 TCTTACTGTCTTACCTGTGCTAAAGCATGTCCACACATGGCTACTTGTGGAAATGTTCTGTTTGAGGGAAGAAC
 AGTTCAGCTAGGGAAGCTTTGCTGCACTGGAGTTGGAAGTGAAGATGATGAAGATACTGAGTCAAATTCATCGGT
 AGAACAAAGCATCGGTTGAAGTACCTGATGGACCAACACTCCATGACCCAGACCTCTATATTGAGATTGTGAAAAA
 TACGAAGTCTGTCCCAGAATATTCAGAGGTGGCTTATCCCGATTATTTTGGTCAATTCCGCCTCCATTCAAAGA
 GCCTATTTTAGAAAGGCCTTATGGTGTACAAAGGACAAAAATTGCTCAAGATATTGAAAGGCTAATACATCAGAG
 TGATATCATAGATCGTGTGGTATATGACTTGGATAACCCAAATTACACCATTCCAGAAGAGGGAGATATTTTGAA
 ATTTAACTCCAAATTTGAGTCTGGGAATCTGCGCAAAGTAATTCAAATTAGAAAAAATGAATATGATCTTATTCT
 GAACTCAGACATAAACAGCAATCATTATCATCAGTGGTTTTACTTTGAAGTCAGTGGAAATGCGACCAGGTGTTGC
 TTACAGGTTTAAACATCATTAACTGTGAAAAGTCCAACAGTCAGTTTAAATTATGGTATGCAACCACTCATGTATTC
 GGTTCAAGGAAGCATTAAATGCCAGACCATGGTGGATTCTGATGGGGACTGACATTTGTTACTATAAAAAATCATT
 CTAAGAAGTTCAGTTGCTGCAGGTGGGCAAAAGGGAATCCTACTATACAATTACATTTACTGTCAATTTTCC
 ACATAAAGATGATGTTTGCTACTTTGCTTATCACTATCCATATACGTATTCAACTTTACAGATGCATCTTCAAAA
 ATTGGAATCAGCACACAATCCTCAGCAAATCTATTTTCGGAAAGATGTGTTATGTGAAACCTGTCTGGAAACAG
 CTGCCCCTTGGTGACTATAACAGCAATGCCAGAGTCTAATTATTATGAACATATCTGCCATTTTCAGAAATCGCCC
 TTACGTTTTCTGTCTGCTCGGGTACATCCTGGAGAACTAATGCAAGTTGGGTTATGAAAGGAACGTTGGAATA
 TCTCATGAGCAATAACCCCACTGCTCAGAGCTTACGAGAATCTTATATTTTAAATTTGTCCTATGTTAAATCC
 AGATGGTGTATCAATGGAAATCATCGCTGTTCTTTAAGTGGAGAGGATTGAAATAGGCAGTGGCAAAGTCCAAG
 TCCGGATTACATCCTACAATTTACCATGCTAAGGGGCTGTTGCAATACTTGGCTGCAGTGAAGCGTTTACCCTT
 GGTTTATTGTGATTATCATGGCCATTCCCGAAAGAAGATGATTTTATGTATGGTTGCAGCATCAAAGAGACAGT
 GTGGCATAACCAATGATAATGCAACTTCATGTGATGTTGTGGAGGATACGGGATACAGGACATTGCCTAAGATACT
 GAGCCATATCGCCCCAGCATTTTGCATGAGCAGCTGTAGCTTCGTAGTGGAAAAATCTAAAGAATCCACAGCACG
 TGTGTAGTTTGGAGGGAAATAGGAGTACAAAGAAGTTATACCATGGAGAGTACTTTATGTGGCTGTGATCAGGG
 AAAATACAAGGGTTTACAGATTGGTACCCGAGAACTGGAAGAGATGGGAGCAAAATTTTGTGTTGGTCTTTTACG
 TTTGAAAAGACTGACCTCTCCATTGGAGTATAATCTGCCCTCCAGCCTGCTTGACTTTGAAAATGATTTAATTGA
 ATCAAGCTGCAAAGTAAGTACCCCTACCCTTATGTCTTGGATGAAGATGAACCTCGATTCTTGAAGAAGTTGA
 TTACAGTGCAGAAAGTAATGATGAGTTAGATATTGAGTTGGCTGAAAATGTAGGAGATTATGAACCTTCTGCTCA

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FIGURE 386B

AGAAGAAGTACTTTCTGACTCTGAATTATCAAGAACATACCTACCTTGAAGCCCGCTGCCATCTCTTGTTAACTGC
AAAGAATAAATGAAATATCTTGGTTTTTTATTTCCCAGGAAGCTTGAGAGAAATGAGTTTATACAGAGCTGACTCA
AAAAGACAAAAAGTAACTTGGGCCAGTTTGGTTTCAAGATAATAAATGTGTTATTAATTAATGATAAAAATTGGCG
CTTGTTTTATTTTCGATATTCAATGCACCTTTATGTAGCATTGAATGATCAAATATTGGATTTACCTTTAAAAAAA
AAAAACCTGAGTATCATTGCATGAATTTTTATCTCCCTATGGTTATATCCTGCATCAAGTGGATAATTTTGAAGT
GTGTTTCAAGATATAAAATTGAAATTTTAGAGTTGTTGAAAATCCTGACTTGTTGAAAATAATATATATGTACAT
GGATTTCTATAGATGTGTTTGTGTTTAGAAGTGGGTAGATATTGCAGATAAGACTGTTCTTCAGAATCATGTTAACT
ATTGGGTTGTGACTGAAGTAGTGCAGGGTTTGCCTTGAAACCATTACATTCTACATTTACCAAATTAAACAAATA
AAAACCTGTATTAAATGTTGC

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FIGURE 387

MSKLKVIPEKSLTNNRIVGLLAQLEKINAEPSESDTARYVTISKILHLAQSQEKTRREMTAKGSTGMEILLSTLE
NTKDLQTTLNILSILVELVSAGGRRVSFLVTKGGSQILLQLLMNASKESPPHEDLMVQIHSILAKIGPKDKKFG
VKARINGALNITLNLVKQNLQNHRLVLPCLQLLRVYSANSVNSVSLGKNGVVELMFKIIGPFSKKNSSLIKVALD
TLAALLKSKTNARRAVDRGYVQVLLTIYVDWHRHDNRHRNMLIRKILRSLKSVTNIKLGRKAFIDANGMKILYN
TSQLPVIPVTGPVAQLYSLPPEVDDVVDESDDNDDIDVEAENETENEDDLDQNFKNDDIETDINKLKPQQEPGRT
IEDLKMYEHLFPELVDDFQDYDLISKEPKPFVFEGKVRGPIVVPTAGEGTSGNSGNLRKVVMKENISSKGDEGEK
KSTFMDLAKEDIKDNDRTLQQQPGDQNRTISSVHGLNNDIVKALDRITLQNIPSQTAPGFTAEMKKDCSLPLTVL
TCAKACPHMATCGNVLFEGRTVQLGKLCCTGVGTEDDEDTESNSSVEQASVEVPDGPTLHDPDLYIEIVKNTKSV
PEYSEVAYPDYFGHIPPPFKEPILERPYGVQRTKIAQDIERLIHQSDIIDRVVYDLNPNYTIPEEGDILKFNSK
FESGNLRKVIQIRKNEYDLILNSDINSNHYHQWFYFEVSGMRPGVAYRFNIINCEKSNSQFNMGQPLMYSVQEA
LNARPWWIRMGTDICYKNHFSRSSVAAGGQKGKSYTITFTVNFPKHDDVCYFAYHYPYTYSTLQMHLOKLESA
HNPQQIYFRKDVLCETLSGNSCPLVTITAMPESNYEHIHCFRNRPHYVFLSARVHPGETNASWVMKGTLEYLMSN
NPTAQSLRESYIFKIVPMLNPDGVINGNHRCSLSGEDLNRQWQSPSPDLHPTIYHAKGLLQYLAAVKRLPLVYCD
YHGHSRKKNVFMYGCSIKETVWHTNDNATSCDVVEDTGYRTLKILSHIAPAFCMSSCSFVVEKSKESTARVVW
REIGVQRSYTMESTLCGCDQGKYKGLQIGTRELEEMGAKFCVGLLRLLKRLTSPLEYNLPSSLLDFENDLIESSCK
VTSPTTYVLDEDEPRFLEEVDYSAESNDELDIELAENVGDYEPSAQEEVLSDSELSRTYLP

FIGURE 388

GGCGGACGCTGGAAAGCGCCGTTCTGACTCTAATGTACTTAGACACTTGAAGCCACAAAAGGATTTATCCCCGA
GGTTCTCATCTGCTCGCGAGGATGCCTTTTCTCTTCTGCTTGCAGAAATAACAGCAGCCTAGCTGTTGCCCGTG
ACCAGTGAGAAAGGCAGCGTCGCGGGCTGATTAGGTTTACCCCAAAGGGTGCCGGCGCCGAATTGGTTTCTAACG
AGAAGTTTTAAATGATCCGTTCCAAAAAAGGGTAGGAGCCGCGAGACCTCCAAGTCCCAGAGAAAAACAAGTC
TCGTCTGGCAAAGTTCTCGGCCACGCGGTCCGCGGCCAAGGGCCAACGGTCCCTCGCCCCACGTTGCCCGAGCA
CTGCGCGTGCGCGAGCCGCTGTCAAACGCGCTGACGGAGGCCGAGAAGAAAAAAGGCGGGAGCCGTCAATCCCG
GGTTGAGCAAAATGCGCGGGGAGAAGGAGATGCAGGAGTTACCCGTAGCTTCTTCCGAGGCCGCCGGACCTCA
GCACGCTTACGCATTCCATCGTGCGGCGGAGGTAAGTCTAGCTCACTCGGGCCGAGCCACCTGGAGCCCCGAGGAGA
AGCAGGCACTGAAGCGGCTGGTGGAGGAGGAGCTGCTGAAGATGCAGGTGGATGAAGCCGCTTCCAGGGAAGACA
AACTGGACCTTACCAAGAAGGGCAAGAGGCCTCCCACCCCTTGTAGCGACCCGGAGAGAAAAAGGTTCCGCTTCA
ATTGAGAGTCGGAGTCCGGCTCTGAAGCCTCCAGCCCAGACTACTTTGGACCCCCAGCAAAGAATGGGGTGGCAG
CAGAAGTCAGCCCAGCCAAAGAGGAGAATCCAAGGCGAGCCTCAAAGGCAGTTGAGGAGAGCAGTGATGAGGAAC
GGCAGAGGGACCTGCCCGCACAGAGGGGAGAGGAGAGCAGTGAGGAGGAGGAAAAGGGGTACAAGGGGAAGACTA
GGAAGAAACCTGTGGTAAAGAAGCAGGCACCAGGCAAGGCCTCAGTCAGTAGGAAGCAGGCCAGGGAAGAAAGTG
AGGAGAGCGAGGCAGAACCCGTTGAGAGACAGCAAAGAAGGTGGAGGGAAATAAAGGAAGTAAAGGCCTGAAGG
AAAGTGAACAGGAGAGTGAAGAGGAGATCCTAGCCCAGAAGAAAGAGCAGAGAGAGGAGGAAGTGGAGGAGGAAG
AGAAAGAAGAGGATGAGGAAAAGGGGATTGGAACCCAGAACCAGGAGCAATGGCCGGAGAAAGTCAGCTAGGG
AGGAGAGGAGCTGTAAGCAGAAAAGCCAGGCAAAGAGGCTCTTGGGAGACTCAGACAGCGAGGAAGAGCAGAAAG
AGGCAGCCAGCAGTGGGGATGACAGTGGGAGAGATAGAGAACCCCCAGTGCAGAGGAAGAGTGAGGACAGGACCC
AGCTTAAGGGTGGGAAGAGGTTGAGTGGAAGCAGCGAGGACGAGGAAGACAGTGGGAAGGGGGAACCCACAGCTA
AAGGCTCTAGAAAGATGGCCAGACTGGGCAGCACCAGTGGTGAGGAAAGTGACTTGGAGAGGGAGGTAAGTGACA
GCGAGGCAGGGGGAGGCCCCAGGGGGAGAGGAAGAACCCTCTTCCAAGAAGAGCTCCAGGAAAGGCAGGACAC
GAAGCTCCTCTTCTCCTCAGATGGAAGTCCAGAGGCCAAAGGAGGGAAGGCTGGCTCAGGTCGCCGTGGAGAGG
ACCACCCGGCTGTGATGAGGCTGAAGCGCTACATTGCGGCCCTGTGGTGCCCATCGAAACTACAAGAAGCTGTTGG
GCTCCTGTTGCTCACACAAGGAGCGCCTGAGTATCCTCCGGGCAGAACTGGAAGCGCTAGGCATGAAGGGTACCC
CTTCCCTAGGGAAGTGTCGGGCCCTGAAGGAGCAGAGGGAGGAGGCAGCTGAGGTGGCCTCCTTGATGTTGCGA
ACATCATCAGTGGCTCGGGCCGGCCACGCAGACGTACAGCCTGGAACCCCTTAGGAGAAGCAGCACCCCCAGGGG
AGCTGTACCGACGGACCCTGGACTCAGATGAAGAGCGCCCCGTCCCGCACCCCCAGACTGGTCACATATGCGTG
GCATCATCAGCAGTGATGGCGAGAGTAAGTGAAGCTCTGCCACCCCCAGGAGGGACCCTTGATACATGTACAAAGC
ATACATAGCACCCCTTGCCCTGTGTCTGTGGAACAGAAGCAGCTTCCTTCAGAGAAGACTGCAGCTCCCAAGGAC
ACAAGCTGTTGGGATGCTACTTCTCAGCTTACGCTGTCCCTTTAAGGTGTTTATTTTTTAAGACTCAATAAAGG
AGTGTTTTTAATCACCTCAAAAAAAA

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FIGURE 389

MAREKEMQEFTRSFFRGRPDLSTLTHSIVRRRYLAHSGRSHLEPEEKQALKRLVEEELLKMQVDEAASREDKLDL
TKKGKRPTPCSDPERKRFRFNSESESGSEASSPDYFGPPAKNGVAAEVSPAKEENPRRASKAVEESSDEERQRD
LPAQRGEESSEEEKGYKGKTRKKPVVKKQAPGKASVSRKQAREESESEAEVPQRTAKKVEGNKGTSLKESEQ
ESEEI LAQKKEQREEEVEEEKEEDEEKGDWKPRTRSNRRKSAREERSCKQKSQAKRL LGSDSEEEQKEAAS
SGDDSGRDREPPVQRKSEDRTQLKGGKRLSGSSEDEEDSGKGEP TAKGSRKMARLGSTSGEESDLEREVSDSEAG
GGPQGERKNRSSKKSSRKGRTRSSSSSDGSPEAKGGKAGSGRRGEDHPAVMLKRYIRACGAHRNYKKLLGSCC
SHKERLSILRAELEALGMKGTPSLGKCRAKEQREEA AEVASLDVANIISGSGRPRRR TAWNPLGEAAPP GELYR
RTLDSDEERPRPAPPDWSHMRGIISDGEN

FIGURE 390

CTCCCTTTGGGCAAGGACCTGAGACCCTTGIGCTAAGTCAAGAGGCTCAATGGGCTGCAGAAGAACTAGAGAAGG
ACCAAGCAAAGCC**ATG**ATATTTCCATGGAAATGTCAGAGCACCCAGAGGGACTTATGGAACATCTTCAAGTTGTG
GGGGTGGACAATGCTCTGTGTGATTTCCTGGCACATCATGGAACCGACTGCTGGACTTACCATTATTCTGAAAA
ACCCATGAACTGGCAAAGGGCTAGAAGATTCTGCCGAGACAATTACACAGATTAGTTGCCATACAAAACAAGGC
GGAAATTGAGTATCTGGAGAAGACTCTGCCTTTAGTCGTTCTTACTACTGGATAGGAATCCGGAAGATAGGAGG
AATATGGACGTGGGTGGGAACCAACAAATCTCTTACTGAAGAAGCAGAGAACTGGGGAGATGGTGAGCCCAACAA
CAAGAAGAACAAGGAGGACTGCGTGGAGATCTATATCAAGAGAAACAAAGATGCAGGCAAATGGAACGATGACGC
CTGCCACAACTAAAGGCAGCCCTCTGTTACACAGCTTCTTGCCAGCCCTGGTCATGCAGTGGCCATGGAGAATG
TGTAAGAAATCATCAATAATTACACCTGCAACTGTGATGTGGGGTACTATGGGCCCCAGTGTCACTTTGTGATTCA
GTGTGAGCCTTTGGAGGCCCCAGAGCTGGGTACCATGGACTGTACTCACCCCTTGGGAACTTCAGCTTCAGCTC
ACAGTGTGCCTTCAGCTGCTCTGAAGGAACAACTTAACTGGGATTGAAGAAACCACCTGTGGACCATTGGA
CTGGTCATCTCCAGAACCAACCTGTCAAGTGATTCACTGTGAGCCTCTATCAGCACCAGATTGGGGATCATGAA
CTGTAGCCATCCCCTGCCAGCTTCAGCTTTACCTCTGCATGTACCTTCATCTGCTCAGAAGGAACTGAGTTAAT
TGGAAGAAGAAAACCATTTGTGAATCATCTGGAATCTGGTCAAATCCTAGTCCAATATGTCAAAAATTGGACAA
AAGTTTCTCAATGATTAAGGAGGGTGATTATAACCCCTCTTCATTCCAGTGGCAGTCATGGTTACTGCATTCTC
TGGGTTGGCATTATCATTTGGCTGGCAAGGAGATTAAAAAAGGCAAGAAATCCAAGAGAAGTATGAATGACCC
ATAT**TAA**ATCGCCCTTGTTGAAAGAAAATTCTTGGAATACTAAAAATCATGAGATCCTTTAAATCCTTCCATGAA
ACGTTTTGTGTGGTGGCACCTCCTACGTCAAACATGAAGTGTGTTTCTTCAGTGCATCTGGGAAGATTTCTACC
TGACCAACAGTTCCTTCAGCTTCATTTGCCCCCTCATTTATCCCTCAACCCCAAGCCACAGGTGTTTATACAG
CTCAGCTTTTTGTCTTTTCTGAGGAGAAACAAATAAGACCATAAAGGGAAAGGATTCATGTGGAATATAAAGATG
GCTGACTTTGCTCTTTCTTGACTCTTGTTTTTCAGTTTTCAATTCAGTGTGTACTTGATGACAGACACTTCTAAAT
GAAGTGAAATTTGATACATATGTGAATATGGACTCAGTTTTCTTGCAGATCAAATTTACGTCGTCTTCTGTAT
ACTGTGGAGGTACACTCTTATAGAAAGTTCAAAAAGTCTACGCTCTCCTTTCTTTCTAACTCCAGTGAAGTAATG
GGGTCTCTCAAGTTGAAAGAGTCTTATTTGCACTGTAGCCTCGCCGTCTGTGAATTGGACCATCCTATTTAAC
TGGCTTCAGCCTCCCCACCTTCTTCAGCCACCTCTCTTTTTTCAGTTGGCTGACTTCCACACCTAGCATCTCATGA
GTGCCAAGCAAAAGGAGAGAAGAGAGAAATAGCCTGCGCTGTTTTTTAGTTTGGGGGTTTTGCTGTTTCCTTTTA
TGAGACCCATTCCATTTCTTATAGTCAATGTTTCTTTTATCACGATATTATTAGTAAGAAAACATCACTGAAAT
GCTAGCTGCAAGTGACATCTCTTTGATGTATATGGAAGAGTTAAAAACAGGTGGAGAAATTCCTTGATTACAAAT
GAAATGCTCTCCTTTCCCTGCCCCAGACCTTTTATCCACTTACCTAGATTCTACATATTCTTTAAATTTTCATC
TCAGGCCTCCCTCAACCCACCACTTCTTTTATAACTAGTCCTTTACTAATCCAACCCATGATGAGCTCCTCTTC
CTGGCTTCTTACTGAAAGGTTACCCTGTAACATGCAATTTTGCATTTGAATAAAGCCTGCTTTTTAAGTGTTAA

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FIGURE 391

MIFPWKCQSTQRDNLWNIFKLWGWTMLCCDFLAHHGTDWCYHYSEKPMNWQRARRFCRDNYTDLVAIQNKAEIEY
LEKTLPFSSRSYYWIGIRKIGGIWTWVGTKSLTEEAENWGDGEPNNKKNKEDCVEIYIKRNKDAGKWDDACHKL
KAALCYTASCQPWSCSGHGECVEIINNYTCNCDVGYYGPQCQFVIQCEPLEAPELGTMDC THPLGNFSFSSQCAF
SCSEGTNLTGIEETTCGPFGNWSSPEPTCQVIQCEPLSAPDLGIMNC SHPLASF SFTSACTFICSEGTELIGKKK
TICSSGIWSNPSPICQKLDKSF SMIKEGDYNPLFIPVAVMVTAFSGLAFI IWLARRLKKGKSKRSMNDPY

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FIGURE 392A

AACTCATGCGGCCAGAGCGGGAAAGAGACTCGTCTTTGCGTCCGAGTTCTGGAGCCGCCGACCCCGACTCCTGG
GGCCGCGGCAGCGGCTGCGAGGGGACGGGCGTCCGCTGTCTCCTGGGTTCCCTCGTAGCGACCCGCGGGATCGG
AAAAAAGGAGAAGATGAGGAGGAGGGTGGCAGCAGCGCGGCCGCGGGGACCAGCGCGGACGGCGGCAGC
GAGGAGAGCAGCTCCTCACTGTCAAGCAGAGCTGCGGACTGCTAATTTGACAGGACATGCTGAGAAGGTGGGAA
TAGAAAATTTTGAGCTCCTGAAGGTCCTAGGAACTGGAGCTTATGGAAAAGTATTTCTAGTTTCGTAAAATAAGTG
GCCATGATACTGGAAAGCTGTATGCCATGAAAGTTTTGAAAAGGCAACAATCGTTCAAAAGGCCAAAACCACAG
AGCATACAAGGACAGAACGACAAGTCCTGGAACACATTAGGCAGTCGCCATTTTGGTAACATTACATTATGCTT
TCCAGACAGAAACCAAACCTTCATCTCATTTTAGATTATATAAATGGTGGTGAACTTTTTACTCATCTTTCTCAA
GAGAGCGTTTCACAGAGCATGAGGTGCAGATTTATGTTGGAGAGATTGTGCTTGCCCTCGAACATCTCCACAAGT
TGGGGATTATATATCGTGATATTAAGCTTGAGAATATTCTACTTGATTCTAATGGCCATGTGGTGCTGACAGATT
TTGGTCTGAGTAAGGAGTTTGTGGCTGATGAAACTGAAAGAGCATATTCCTTTTGTGGAACATTGAATACATGG
CACCAGATATTGTGAGAGGGGAGATTACAGGACATGACAAGGCAGTTGACTGGTGGAGTTTGGGTGTTCTAATGT
ATGAATTACTAAGTGGAGCATCTCCTTTCACTGTTGATGGAGAAAAAATTCCTAAGCTGAGATATCTAGGAGAA
TATTAAGAGTGAGCCTCCATATCCCCAAGAAATGAGTGCTTTAGCGAAAGACCTAATTCAGCGTCTTTTGATGA
AAGATCCCAAGAAGAGATTGGGATGTGGTCCACGTGATGCAGATGAAATCAAAGAACATCTCTTCTTTTCAGAAAA
TAAATTGGGATGATTTAGCCGCCAAAAAAGTGCTGCACCATTTAAGCCAGTCATTTCGAGATGAATTAGATGTGA
GTAACCTTTCAGAGAAGAGTTACAGAAATGGATCCCACTTATTCTCCCGCAGCCCTGCCCCAGAGTTCTGAGAAGC
TGTTTCAGGGCTATTCTTTGTTGCTCCTTCCATCCTATTCAAGCGTAATGCAGCTGTCATAGACCCTCTTCAGT
TTCACATGGGAGTTGAACGTCCTGGAGTGACAAATGTTGCCAGGAGTGCAATGATGAAGGACTCTCCATTCTATC
AACACTATGACCTAGATTTGAAGGACAAACCCCTGGGAGAAGGTAGTTTTTCAATTTGTGAAAGTGTTGCATA
AAAAAGTAACCAAGCTTTGCAAGTCAAAATAATCAGCAAAAGGATGGAAGCCAATACTCAAAAGGAAATAACAG
CTCTGAAACTCTGTGAAGGACACCCCAATATTGTGAAGTTGCATGAAGTTTTTCATGATCAGCTTCACACGTTTC
TAGTGATGGAACCTTCTGAATGGAGGAGAAGCTGTTTGACGCATTAAGAAAAAAGAAGCACTTCAGTGAGACGGAAG
CCAGCTACATCATGAGGAAGCTTGTTCAGCTCTAAGCCACATGCATGATCTTGGAGTGGTGCACAGGGATCTGA
AACCTGAGAATTTATTGTTTACCGATGAAAATGACAATTTGGAAATTAATAAATTGATTTTGGATTGTCACGGC
TAAAGCCACCGGATAATCAGCCCTGAAGACTCCATGCTTACCCTTCATTTCATGCCGCCAGAGCTCTTGAATC
AGAACGGCTACGATGAGTCTGTGACCTGTGGAGCTTGGGCGTCATTTTGTACACAATGTTGTCAGGACAGGTTTC
CCTTCCAATCTCATGACCGAAGTTTGACGTGTACCAGCGCGGTGGAATCATGAAGAAAAATTAAGGAGGAGATT
TCTCCTTTGAAGGAGAAGCCTGGAAGAAATGTATCCCAAGAGGCTAAAGATTTGATCCAAGGACTTCTCACAGTAG
ATCCAAACAAAAGGCTTAAATGTCTGGCTTGAGGTACAATGAATGGCTACAAGATGGAAGTCAGCTGTCTTCCA
ATCCTCTGATGACTCCGGATATTCTAGGATCTTCCGGAGCTGCCGTGCATACCTGTGTGAAAGCAACCTTCCACG
CCTTTAACAAATACAAGAGAGAGGGGTTTTGCCTTCAGAATGTTGATAAGGCCCTTTGGCTAAGAGAAGAAAA
TGAAAAAGACTAGCACCAGTACCGAGACGCGCAGAGGGTCCAGTGAGAGTTCCCATTCCTTCTTCTCATTCTC
ACGGTAAACTACACCCACCAAGACACTGCAGCCAGCAATCCTGCCGACAGCAATAACCCGAGACCCTCTTCC
AGTTCTCGGACTCAGAGCTTAGGCATGGTAGGAGTGATCAGTGATCCATTGCACCTTTATTCCTCAGCATATGC
CTGAGTCGATCTTTTATGCTTTTAAAAATGTTTCCCGTTGGTCTCATTGGAATCTGCCTCCTAATGATTTTTTC
AGGAAAACCTGTTTGGTTATCCTCATTCAAAGCACTGGACAGAGAATGTTACTGTGAATAGAGCACATATTACT
CTTTTACGAACCTAGCATGATGCCAACAAGACTATTCTTGAAGAGCAAAGGTTCTGTAAATTTAATTAGGGC
TAGATTTGAGCTGCTTGTAAGTCACAGGTTTTCCAGATGTCTGCCAACAAGAAATGACTCATACTGTGATGATAC
CTTTTGCTTTGCCTTGTGGACAATGTGGGTTTTTGAATTTGCACCCTTCAAACAATGATTTATCAGAGAAAGGG
GTCTGTTTTTCAAAAAAGATTCTGTAATGAATTTTATGTGTGGCATATACTTATTTCTTGAGAGAAGATTTAACT
TATTGTTTTTATTTTATGGTTACATATGATGATAACCTGCTATTATTAACTTTTTTCTAAAAAGTGAAAAAAAT
AAAAAGATATAAGAACTCAAGGTCCCATACTCTGTATTCCGGATCCATCTGAGATGCATGCTAAGCTATGTGTA
TGTTTTTAATTTTGCACTGCTCTTTTCTGGCAATTTGTTTTAATGGTTATTGCAGAATATTAAGGTACATGTCTC
TCTGTTTTAAGTAATATTGCACTTTTAAAAAAGTATGAATAAAGCAAACTATTTTATAAAGTGCACTGTTTTAA
GCATTTGCACTGTATTTTTGCCATTTATTTTCATTTTCTACTTTAAATTTGTCTTCACATGCCCTCTTCTACTTTG
TATGCAACAAGTAGAATGGGGCCTTGTGTGTATGTAGTCAGCCACTTATGCACCAATGTGAGGAAAACCTAAA
GGGAAATTAACATAACACTGTGCTTCATATTTGTACACTGTGTTGTACTACAGTGAGGAATTTCTCTCTGTAGT

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FIGURE 392B

CATATATTATGTACATAATATTTTAGAATCATACCTATGACTTGTTTGGAAATTTTCTGTTGAATTTTAAATCC
AGAAAGCATATTTTATAAACTTATGCAGAGCACTTTTATTGCTCAAAAAGTTCTGAATTCATACAGAAAACAAGTA
CTATGTGATGAAAACATTCATTGAAAGATTGCGGCATTTAAAAATACAATTAATTCGTTCCCTATGCAAAAAA
AAAAAA

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FIGURE 393

MEEEGSSGGAAGTSADGGDGGEQLLTVKHELRTANLTGHAEKVGIENFELLKVLGTGAYGKVFLVRKISGHDTG
KLYAMKVLKKATIVQKAKTTEHTRTERQVLEHIRQSPFLVTLHYAFQTETKLHLILDYINGGELFTHLSQRERFT
EHEVQIYVGEIVLALEHLHKLGIYRDIKLENILLDSNGHVVLTDGFLSKEFVADETERAYSFCGTIEYMAPDIV
RGGDSGHDKAVDWWSLGVLMYELLTGASPFTVDGEKNSQAEISRRIKSEPPYPQEMSALAKDLIQRLLMKDPKK
RLGCGPRDADEIKEHLFFQKINWDDLAACKVPAPFKPVIRDELVDVSNFAEEFTMDPTYSPAALPQSSEKLFQGY
SFVAPSILFKRNAVIDPLQFHMVERPGVTNVARSAMMKDSPFYQHYDLDLKDKPLGEGSFSICRKCVHKKSQ
ALQVKIISKRMEANTQKEITALKCEGHPNIVKLHEVFHDQLHTFLVMELLLNGGELFDALRKKKHFSETEASYIM
RKLVSALSHMHDLGVVHRDLKPENLLFTDENDNLEIKIIDFGFARLKPPDNQPLKTPCFTLHSCRPELLNQNGYD
ESCDLWSLGVILYTMLSGQVPFQSHDRSLTCTSAVEIMKKIKKGDFSFEGEAWKNVSQEAKDLIQGLLTVDPNKR
LKMSGLRYNEWLQDGSQSSNPLMTPDILGSSGAHVHTCVKATFHAFNKYKREGFCLQNVDKAPLAKRRKMKKTS
TSTETRRGSSSESSSSSSSHGKTTPTKTLQPSNPADSNNPETLQFSDSELRHGRSDQ

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FIGURE 394

TATATTGGCAGTTATTGAGGGTAAAGCAATATATTGTAACAGAATGTATAAATATTTTTGATAAAACAGTCTATA
TTTTATTAAAAAATGAATTATAACCCATTTTCAGTTTTGCCTGCATCATAAGAGTGAGCACTCCATTGCTTTCTT
TCCTGGCCACACTGCTACAATCCAGCACTAACTATCCATGTCCAGGGTAAGGATCGAGATCGAGAAGCCCACACT
GCCAGTGAAAAAGCTACGTCCTTACTGCATAAATTAGAGGAAGCAATTTTCGGAACAACGGAACCTTCAAACCTATA
AATACTGAATTATCGAACACTTGCCAGGCACCTTCAGCAGAAGACAAGGAACTGAAGAAGCTTTTTAGATGAGGA
ATTTCTCTACTATGATTCCCTGTCCTGCGCAGATGCAATTCAACAACCTCTTCAAGAAAAATTGAAGCAGTGTTG
CCACAACTATATGGTGGTCAAGAAGCAAGAATACATCAGACACCCCTGACCTTGAAACATACGTGCTGGTACAC
ACCTCTGCTGGATGCCTTATCTCTGGATAGTTTTACAGCAGTTCCAACCCCTGGAATCAACACCTTTCTCAGGTGT
AGCCAACCAAATCCACACTCTGTGTGAAAGGCCACATATGGAGAAGTAAAGGATGGTGCTTTGGATGTAAAAAG
ACAACACAAGTGCCAGGCCCCACAAGTGGCCCCAGCCCAGGAACGAATCTCTCAGGCTGCATCAGGATGAATGA
TGACCCAAGTATGGAAGAGAATGGTGTGTAACGCGTGTGTCTGAGAGCCTGCTGCAGTCCAGGGGATATTCTCTC
ACTACCATTACCCAGACACACTTCATCGACAGACGGTACTATAACTTCAAGTGATCCTGGATTAGAAATTCTGAA
TATGGCTTCTTGTGACCTTGACAGAACTCGCTCTGTAAAGAAAGAGGAGGATACAAGATCAGCTTCTCCCACGAT
AGAGGCCCAAGGCACAAGTCCAGCTCATGATAATATTGCATTCCAAGACTCTACGAGTAAGGATAAAACCATATT
AAATCTGGAAGCCAAAAGAGGAACCAGAAACAATAGAAGAACATAAAAAAGAACATGCTTCAGGAGACTCTGTGGT
TTCCCTCTTCTGTAAACCACTGTGAAATCGGTTAACGTTAGACAAAAGTGAGAACACTTCTGCTAATGAGAAGGA
GGTGGAGGCAGAATTTCTCAGATTATCTTTGGGATTTAAGTGTGACTGGTTTACCTTGGAGAAGAGAGTGAAGCT
TGAAGAGAGGTCCCGTGACTGGGCAGAAGAAAATTTGAAGAAAGAAATCACTAACTCTTTAAACTATTAGAGTC
TTTAACACCTCTGTGTGAAGATGACAACCAGGCACAGGAAATCATTAGAAGCTGGAGAAGAGTATAAAGTTTCT
TAGCCAGTGTGCAGCACGAGTGGCCAGTAGGGCTGAGATGTTGGGAGCCATCAATCAGGAAAGCCGGGTTAGTAA
AGCAGTTGAAGTGATGATTGAGCACGTAGAAAACCTTGAAGAGGATGTATGCCAAAGAGCACGCTGAATTAGAAGA
ACTGAAACAGGTTCTTCTGCAGAATGAAAGGTCTTTCAATCCTCTTGAAGATGATGATGACTGCCAAATTAAGAA
ACGTTTCTAGCTTCTCTAAACTCCAAGCCATCTTCTCTACGAAGAGTGACTATTGCCTCTTTACCCAGAAATATTGG
AAATGCAGGAATGGTGGCTGGGATGGAAAATAATGATCGATTGAGTAGAAGGTCAAGCAGTTGGCGTATTTTGGG
GTCAAAGCAGAGTGAACACCGTCCCTCATTACCTCGATTTATTAGCACCTATTCTGGGCAGATGCTGAAGAAGA
AAAATGTGAACTAAAACTAAAGATGACTCAGAGCCATCTGGAGAAGAAACAGTAGAAAGGACAAGGAAGCCAAG
TCTTTCTGAAAAGAAAAATAATCCATCAAAGTGGGATGTCTCTTTCAGTTTATGACACAATAGCTTCTGGGCAAC
AAATCTCAAGTCTCCATCAGAAAGGCTAATAAGGCCCTCTGGCTCTCTATTGCATTCTTGTACTGTTTGCAGC
TTTGATGAGCTTCTCACAGGCCAATTATTCCAGAAGTCTGTGGATGCCGCTCCACACAGCAAGAGGACTCATG
GACGTCTCTAGAACATATCTTGTGGCCATTTACCAGACTCCGACACAATGGGCCACCACCAGTGTGACAGCAGGA
CATCCTAATATATGGATCTTGATTTTTAAGTTTCAGTATCTGAACTTCGTAAATTAGTAACTTTTAGCTGGGAAA
GTATAGCATGAAACCAGAGGTTCTCAGAATGACCGTAAGATAGCTTACATTTCTCTTTTTGCCTTTATCTCCCC
AACTAAATACAATGGG

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FIGURE 395

LESTPFSGVANQIHTLCERPTYGEVKDGDALDVKRQHKCPGPTSGPSPGTNLSGCIRMNDDPSMEENGVERVCPES
LLQSRGYSSLPLPRHTSSTDGTITSSDPGLEILNMASCDLDRNSLCKKEEDTRSASPTIEAQGTSPAHDNIAFQD
STSKDKTILNLEAKEEPETIEEHKKEHASGDSVVSPLPVTTVKSVNVRQSENTSANEKEVEAEFLRLSLGFKCDW
FTLEKRVKLEERSRDWAEENLKKEITNSLKLLESITPLCEDDNQAQEI IKKLEKSIKFLSQCAARVASRAEMLGA
INQESRVSKAVEVMIQHVENLKRMYPKEHAELEELKQVLLQNERSFNPLEDDEDCQIKKRSASLNSKPSSLRRVT
IASLPRNIGNAGMVAGMENNDRFRRSSSWRILGSKQSEHRPSLPRFISTYSWADAEEEKCELKTKDDSEPSGEE
TVERTRKPSLSEKKNNPSKWDVSSVYDTIASWATNLKSSIRKANKALWLSIAFIVLFAALMSFLTGLFQKSVDA
APTQQEDSWTSLEHILWPFTRLRHNGPPP

FIGURE 396A

CGAAAGGCCGGCCTTGGCTGCGACAGCCTGGGTAAGAGGTGTAGGTGCGCTTGGTTTTCTGCTACCCGGAGCTGG
GCAAGCGGGTGGGAGAACAGCGAAGACAGCGTGAGCCTGGGCCGTTGCTCGAGGCTCTCGCCCGGCTTCTCTTG
CCGACCCGCCACGTTTGTGTTGGATTTAATCTTCAGGTTGCCGGCGCCCGCCCGCTGGCCTCGCGGTGTGAG
AGGGAAGCACCCGTGCTGTGGCTGGTGGCTGGCGCCTGGAGGGTCCGCACACCCGCCCGCGCGCGCTTTGC
CCGCGGCAGCCGCTCCCTGAACCGCGGAGTCGTGTTGTGTTGACCCGCGGGCGCGGTGGCGCGCGGCCGAG
GCCGGTGTGCGCGGGGCGGGCGGTGCGCGCGGAGGCAGAGGAAGAGGGAGCGGGAGCTCTGCGAGGCCGGGCGC
CGCC**ATG**GAACTGGGCCCGAGCCCCGACCGCGCCGCTGCTCTTCGCTGCAGCCCCCTCCCGCTGCGAGCC
CGTCGTGAAGGCGCTATTTGGCGCTTCAGCCGCGGGGGACTGTGCTGTACCAACCTGACCGTCACTATGGA
CCAGCTGCAGGGTCTGGGCAGTGATTATGAGCAACCACTGGAGGTGAAGAACAACAGTAATCTGCAGAGAATGGG
CTCCTCCGAGTCAACAGATTCAAGTTTCTGTCTAGATTCTCCTGGGCCATTGGACAGTAAAGAAAACCTTGAAAA
TCCTATGAGAAGAATACATTCCCTACCTCAAAAGCTGTTGGGATGTAGTCCAGCTCTGAAGAGGAGCCATTCTGA
TTCTCTTGACCATGACATCTTTCAGTCTATCGACCCAGATGAGAACAAGGAAAATGAAGCCTTTGAGTTTAAGAA
GCCAGTAAGACCTGTATCTCGTGGCTGCTGCACTCTCATGGACTCCAGGAGGGTAAAGATCTCTTCACACAGAG
GCAGAACTCTGCCCAGCTCGGAATGCTTTCCTCAAATGAAAGAGATAGCAGTGAACCAGGGAATTTCACTCTCT
TTTTACACCCAGTCACCTGTGACAGCCACTTTGTCTGATGAGGATGATGGCTTCGTGGACCTTCTCGATGGAGA
GAATCTGAAGAATGAGGAGGAGACCCCTCGTGCATGGCAAGCCTCTGGACAGCTCCTCTCGTCACTGAGAACTAC
AAACCTTGACAACCGATGCAAGCTGTTGACTCCCCTTCCCTGTGTAGCTCCAGCACTCGGTCACTGTTGAAGAG
ACCAGAACGATCTCAAGAGGAGTCTCCACCTGGAAGTACAAAGAGGAGGAAGAGCATGTCTGGGGCCAGCCCCAA
AGAGTCAACTAATCCAGAGAAGGCCCATGAGACTCTTCATCAGTCTTTATCCCTGGCATCTTCCCCCAAAGGAAC
CATTGAGAACATTTTGACAATGACCCAAGGGACCTTATAGGAGACTTCTCCAAGGGTTATCTCTTTCATACAGT
TGCTGGGAAACATCAGGATTTAAATACATCTCTCCAGAAATTATGGCATCTGTTTTGAATGGCAAGTTTGCCAA
CCTCATTAAAGAGTTTGTATCATCGACTGTGATAACCATATGAATACGAGGGAGGCCACATCAAGGGTGCAGT
GAACTTGACATGGAAGAAGAGGTTGAAGACTTCTTATTGAAGAAGCCATTGTACCTACTGATGGCAAGCGTGT
CATTGTTGTGTTTCACTGCGAGTTTTCTTCTGAGAGAGGTCCCCGCATGTGCCGGTATGTGAGAGAGAGAGATCG
CCTGGGTAATGAATACCCCAAACCTCCACTACCCTGAGCTGTATGTCTGAAGGGGGGATACAAGGAGTTCTTTAT
GAAATGCCAGTCTTACTGTGAGCCCCCTAGCTACCGGCCCATGCACCACGAGGACTTTAAAGAAGACCTGAAGAA
GTTCCGCACCAAGAGCCGGACCTGGGCAGGGGAGAAGAGCAAGAGGGAGATGTACAGTCGTCTGAAGAAGCTCT**TG**
AGGGCGGCAGGACCAGCCAGCAGCAGCCCAAGCTTCCCTCCATCCCCCTTTACCCTCTTTGCTGCAGAGAACTT
AAGCAAAGGGGACAGCTGTGTGACATTTGAGAGGGGGCCTGGGACTTCCATGCCTTAAACCTACCTCCCACACT
CCCAAGGTTGGAGCCAGGGCATCTTGCTGGCTACGCCTCTTCTGTCCCTGTTAGACGTCTCTCGTCCATATCAG
AACTGTGCCACAATGCAGTTCTGAGCACCGTGTCAAGCTGCTCTGAGCCACAGTGGGATGAACCAGCCGGGGCCT
TATCGGGCTCCAGCCATCTCATGAGGGGAGAGGAGACGGAGGGGAGTAGAGAAGTTACACAGAAATGCTGCTGGC
CAAATAGCAAAGACAACCTGGGAAGGAAAGGTCTTTGTGGGATAATCCATATGTTTAAATTTATTCAACTTCATCA
ATCACTTTATTTTATTTTTTTTTTCTAACTCCTGGAGACTTATTTTACTGCTTCATTAGGTTGAAATACTGCCATT
CTAGGTAGGGTTTTATTATCCAGGGACTACCTCGGCNNNNNNNNNNNNNNNNNNNNNGAAGTGGGTAAGAAAAT
GCAAACCTGTTATAAGTTATCGGACAGAAAGCTAGGTGCTCTGTACCCCCAGGAGGCGCTGTGGTACTGGGGCT
GCTGCTATTTAAGCCAAGAACTGAGGTCTGGTGAGAGCGTTGGACCCAGGCTTGGCTGCCTGACATAAGCTAAA
TCTCCCAGACCCACCACTGGCTACCGATATCTATTTGGTGGGAGGTGTGGCCCTGTTCTTCTCACCCAGTTCC
ATGACATTGGCTGGTATAGGAGCCACAGTCAGGAAAGCACTTGAGGCAGCATCTGTTGGGCCACCCCGGCTCAG
TGCTGGAATGTTGCAGTGTAGGTTTCCAGGCAAGGGGGTGGGGGTAGGTGGGCTCCACAGGATGGGGGAGGAG
CATGTCCACTGAGTATCTTCTTATGTTGCTGTGATATTGATAGCTTTTATTTTCTAATTTTTAAAAAATGGTCA
TATTATGAGTCAAAGAGTATCAAATCAGTGTTGGATGGACCACCAAGGGTGAGGAGAGGGGCTGGAAGCCCTGG
GCATTAGGAGAAGGGAGTGGGTGCTGGCATGGACATGACTGGATAGAATTTTCTCAGGAGGGAGCTTGGTGGATT
TTGAAGGTAAACTTTCTGGGTTTATCATGTTTTAATTTTAGAGACAGGGAGTGATGAATCATACCGGTTGTCC
CCTTATCTAACTCCATAAAAGTGGGAATTTCAAAGAACACCTCATCCAAGGAGCTGGGGCAGACTTCATTGATT
CTAGAGAGACCTGTTTCAGTGCCTACTCATCCCTGCCCTCTGGTGCCAGCCTCCTTACCATCACGGCTTCACTGA
GGTGTAGGTGGGTTTTTCTTAAACAGGAGACAGTCTCTCCCTCTTACCTCAACTTCTGGGGTGGGAATCAGTG
ATACTGGAGATGGCTAGTTGCTGTGTTACGGGTTTGAGTTACATTTGGCTATAAAACAATCTTGTTGGGAAAAAT

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FIGURE 396B

GTGGGGGAGAGGACTTCTTCCTACACGCGCATTGAGACAGATTCCAACCTGGTTAATGATATTGTTTGTAAAGAAAG
AGATTCTGTTGGTTGACTGCCTAAAGAGAAAGGTGGGATGGCCTTCAGATTATACCAGCTTAGCTAGCATTACTA
ACCAACTGTTGGAAGCTCTGAAAATAAAAGATCTTGAACCCAT

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FIGURE 397

MELGPSAPRRLLFACSPPPASQPVVKALFGASAAGGLSPVTNLIVTMDQLQGLGSDYEQPLEVKNNNSNLQRMGS
SESTDSGFCLDSPGPLDSKENLENPMRRIHSLPQKLLGCSPALKRSHSDSLDHDIFQLIDPDENKENEAFEFKKP
VRPVSRGCLHSHGLQEGKDLFTQRQNSAQLGMLSSNERDSSEPGNFIPLFTPQSPVTATLSDEDDGFVDLLDGEN
LKNEEETPSCMASLWTAPLVMRTTNLDNRCKLFDSPSLCSSSTRSVLKRPERSQEESPPGSTKRRKSMMSGASPKE
STNPEKAHETLHQSLSLASSPKGTTIENILDNDPRDLIGDFSKGYLFHTVAGKHQDLKYISPEIMASVLNGKFANL
IKEFVIIDCRYPYEYEGGHIKAVNLHMEEEVEDFLLKKPIVPTDGKRVIVVFHCEFSSERGPRMCRYVRERDRL
GNEYPKLHYPELYVLKGGYKEFFMKCQSYCEPPSYRPMHHEDFKEDLKKFRTKSRTWAGEKSKREMYSLKKL

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FIGURE 398A

CGGGCAGCGTGGACCCCGGATGAGTTGCTTTTAGGCTTGCTGGCCCGGGGCTGTCCAGGCACGCGAGGCCCT
CAGGTACGCCCTCTCTCCCTGCAGGATCCGGCCCTCAAAGACGAGGGTCACGCACGCGTTACAACCCGAAACA
GTAGACAAGATTTAATTTTTTAAAGAGCGTGTTTCTTCGGGGCTTGCCGTTTCGTTTCGTTTCAGCCTCAGGAAT
TTATGGTCGCCTTTTTGAATGAGCAACAAATGCTTCAACAAGTTCCAGAAAAACATAAATTTTCTGCTGAAGAA
GAGAAAATCTTGGAGTTTGGACTGAATTTAATTGTTTTAGGAATGCTTAAAGCAATCAAAACATAAACCAAAA
TTTACCTTCTATGATGGTCCCTCTTTTGCAACTGGACTGCCTCACTATGGACATATACTTGCGGGTACAATTAA
GATATAGTTACAAGATATGCTCACCAGAGTGGGTTTCATGTTGACAGAAGATTGGATGGGATTGCCATGGCTTA
CCTGTGGAATATGAAATTGATAAGACACTGGGAATCAGAGGACCAGAGGATGTGGCCAAAATGGGGATTACAGAG
TATAACAATCAGTGCCGAGCAATTGTGATGAGATATTCTGCTGAGTGGAAGTCTACTGTTAGCAGACTTGGCCGA
TGGATTGACTTTGACAATGACTATAAACTCTGTATCCACAATTCATGGAATCAGTCTGGTGGGTCTTCAAACAA
CTCTATGATAAAGGCCCTTGTTTATAGAGGTGTGAAAGTCATGCCCTTCTCTACGGCATGTAACACTCCACTTTC
AACTTCGAGTCACACCAGAATTATAAGGATGTTCAAGATCCTTCAGTATTTGTAACCTTTCCTTTGGAAGAAGAT
GAAACTGTATCTTTAGTTGCTTGGACAACCACTCCCTGGACTCTACCTAGTAACCTTGCTGTGTGTGTTAATCCA
GAAATGCAATATGTGAAAATTAAAGATGTTGCCAGAGGACGATTACTCATTTTAATGGAAGCCAGATTGTAGCC
CTCTATAAATTGGAGAGTGACTATGAGATCCTTGAAAGATTTCTTGGTGCCATCTTAAAGGCAAGAAGTACAGG
CCCCTGTTTGACTATTTCTTGAAGTGTAAGAGAATGGCGCTTTCACTGTGCTTGTTGACAACATATGTGAAGGAA
GAAGAAGGCACAGGGGTTGTCCACCAAGCTCCTTACTTCGGTGCTGAGGACTATCGGGTCTGTATGGACTTTAAC
ATTATTCGGAAGACTCACTCCCTGTTTGCCCTGTGGATGCTTCAGGCTGCTTCACAACGGAGGTGACAGATTC
GCAGGACAGTATGTGAAGGATGCTGACAAAAGTATCATCAGGACTTTGAAGGAACAAGGCCGACTTCTGGTTGCC
ACCACCTTCACTCACAGTACCCTTTTTGCTGGAGATCAGACACTCCTCTAATTTACAAAGCAGTGCCAGCTGG
TTTGTCGAGTGGAAGACATGGTGGACCAGCTCCTAAGGAACAATGACCTGTGCTACTGGGTCCAGAGTTGGTA
CGAGAAAAACGATTGGAATTGGCTGAAAGATGCACGTGACTGGACAATTTCCAGAAACAGATACTGGGGCACC
CCCATCCCCTGTGGGTGAGGATGACTTTGAGGAGGTGGTATGCATTGGGTGAGTGGCGGAACCTTGAAGAACTG
TCAGGAGCAAAGATCTCAGATCTCCACAGAGAGAGTGTGACCACCTGACCATTCCCTTCACGCTGTGGGAAGGGA
TCCTTGACCCGATCTCTGAAGTGTTGACTGTTGGTTTGAGAGTGGCAGCATGCCCTATGCTCAGGTTTCAATAC
CCGTTTGAAAACAAGAGGGAGTTTGAGGATGCTTTTCTGAGATTTTCAATGCGGAGGGCATCGACCAACCAGA
GGATGGTTTTATACCTGCTGGTGCTGGCCACGGCCCTCTTTGGACAACCGCTTTCAAGAACGTAATTGTGAAT
GGGCTTGCTCTGGCAAGTGATGGCCAAAAATGAGCAACCGAAAAAGAATTATCCAGATCCAGTTTCCATCATC
CAGAAGTATGGTGCTGATGCCCTCAGATTATATCTGATTAACCTCCCTGTGGTGAGAGCAGAAAACTCCGCTTT
AAAGAAGAGGGTGTGCGGGACGTCTTAAGGATGTACTGCTCCCATGGTACAATGCCTATCGCTTCTTAATCCAG
AACGTTCTGAGGCTCCAGAAGGAGGAAGAAATAGAATTTCTCTACAATGAGAACACGGTTAGAGAAAGCCCCAAC
ATTACAGACCGGTGGATCCTGTCTTTCATGCAGTCTCTCATTGGCTTCTTTGAGACTGAAATGGCAGCTTATAGG
CTTTATACTGTGGTGCTCGCCTGGTCAAGTTTGTAGATATTCTGACCAATTGGTATGTTAGAATGAACCGCAGA
AGATTAAAGGGTGAAAATGGGATGGAGGATTGTGTCATGGCCCTAGAAACCTTGTTTAGTGTTCTGCTTTCTCTT
TGCAGACTTATAGCTCCCTACACACCTTTTCTCACTGAATTGATGTACCAGAACTAAAGGTGCTGATTGACCTT
GTTTCTGTTTCAAGGACACACTCAGCATTCACTACCTCATGCTGCCCCGTGTTTCGAGAAGAATTGATTGAC
AAGAAAACAGAGAGTGCAATCTCAGATGCAGTCTGTGATTGAACTTGAAGAGTGATCAGAGACCGAAAACT
ATTCCCATAAAGTATCCTTTGAAAGAAATTGTGGTTATCCATCAAGATCCAGAAGCTCTTAAAGATATCAAGTCT
TTGGAGAAGTATATCATTGAGGAACCTCAATGTTTCAAAAAGTTACACTGTCTACAGATAAAAACAAGTATGGCATT
CGGCTAAGGGCAGAACCGATCACATGGTCTTGGGGAAGCGTCTGAAGGGAGCCTTTAAGGCAGTGATGACGTCC
ATCAAGCAGTTGAGCAGTGAGGAGCTGGAGCAGTTCCAGAAGACTGGGACCATTGTTGTGGAAGGCCATGAATTG
CACGATGAAGACATCCGCCTCATGTACACCTTTGATCAGGCCACAGGTGGGACTGCGCAATTTGAAGCACACTCA
GATGCTCAGGCTTTGGTCTCTTAGATGTCACTCCTGACCAGTCAATGGTAGATGAAGGAATGGCTCGGGAAGTC
ATCAATCGCATACAGAACTTCGCAAAAAGTGCAATCTGGTTCCAACCTGATGAAATCACAGTGTACTATAAAGCA
AAGTCTGAAGGAACATATCTGAATAGTGTTATTGAAAGCCACACAGAGTTTCATATTTACCACCATAAAGGCTCCC
TTGAAACCATATCCAGTTTCTCCATCGGATAAAGTCTTATTCAAGAAAAAACACAGTTGAAGGGATCTGAACTG
GAAATTACACTCACCAGAGGATCTTCCCTTCTGGTCTGCTTGTGTCATATGTCAATCTTAACATTTGTGCAAT
GGCAGTGAACAAGGTGGAGTATTGCTCCTGGAATCCAAAAGGTGACAATAGGTTGGACCTTTTAAAGCTGAAG

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FIGURE 398B

AGTGTTGTCAGTACATTTTTGGTGTGAAAAATACAGAGCTGGCTGTCTTCCATGATGAAACAGAAATACAAAAC
CAAACGACTTACTGAGTCTTAGTGGAACACACTTTGTGTGACTGCAGGATCGGCTCCCTCTCTGATCAACAGT
TCTAGTACTCTTCTTTGTCAGTATATCAACCTACAGCTCCTGAATGCAAAGCCACAAGAGTGTTAATGGGGACA
GTGGGCACTCTCCTGCTTGAAAACCCACTTGGGCAGAAATGGACTCACCCACCAAGGTCTTCTGTATGAAGCAGCC
AAGGTGTTTGGCCTTCGGAGCAGGAAGCTAAAGCTGTTTCTGAATGAGACCCAAACGCAGGAAATTACAGAAGAC
ATCCCCGTGAAGACTTTGAATATGAAGACTGTGTATGTTTCTGTGTTACCAACAACAGCAGACTTCTAGCATGTA
CTTATCAATGTTGTTTCGGTCAGCCCTTCCCTAATTACACCTATCCCCTACACATACATGCACATAGACACACACA
TGAACACACTGAAGATATTTCCCTTCAGGTGTGTGTAAAATATGCTGCTTGGATTGAAATTCAAATGGGATTGATT
AGTCAAGTAACTTGAGACCTCACAGTAATCTTCACACTTAACCTTAGACACCTATGCAGTCATGTTGGGAGCAGG
TTACAATGTTACTTCAGCCACAGTTTATTTCTATTCTTGAGTTCTTAAGTACAGAAGATAGAAGTGATTTAAAT
GGCATAGTATATATATCATTCTTGGCCTTTTAAAATTTATTTGAGACCTCTTGATGAAATGGACATATTATATA
TTTCTGCCACCTGGATTTTCTGGATAATTTGATGGAATATTTAAGTTTCAGTAAATCAGAACAATAAACAAAC
TCAGATAT

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FIGURE 399

MLQQVPENINFPAAEEKILEFWTEFNCFQECLKQSKHKPKFTFYDGPPFATGLPHYGHILAGTIKDIVTRYAHQS
GFHVDRRFGWDCGLPVEYEIDKTLGIRGPEDVAKMGITEYNNQCRAIVMRYSAEWKSTVSRLGRWIDFDNDYKT
LYPQFMESVWVFKQLYDKGLVYRGVKVMPFSTACNTPLSNFESHQNYKDVQDPSVFTFPLEEDETIVSLVAWTT
TPWTLPSNLAVCVNPEMQYVKIKDVARGRLILMEARLSALYKLES DYEILERFPGAYLKGGKYRPLFDYFLKCK
ENGAFTVLVDNYVKEEEGTGVVHQAPYFGAEDYRVCMDFNII RKDSL P VCPVDASGCFTTEVTDFAGQYVKDADK
SIIRTLKEQGRLLVATTFTHSYPFCWRS D TPLIYKAVPSW FVRVENMVDQLLRNNDLCYWVPELVREKRFGNWLK
DARDWTISRNYWGTP IPLWVSDDFEVVCIGSVAELEELSGAKISDLHRESVDHLTI PSRCGKGS LHRISEVFD
CWFESGSMPIYAQVHYPFENKREFEDAFPADFIAEGIDQTRGWFTLLVLATALFGQPPFKNVIVNGLVLASDGQK
MSKRKKNYPDPVSI IQKYGADALRLYLINSPVVR AENLRFKEEGVRDVLKDVLLPWYNAYRFLIQNVLR LQKEEE
IEFLYNENTVRESPNITDRWILSFMQSLIGFFETEMAA YRLYTVPRLVKFVDILT NWYVRMNRRLKGENGMED
CVM ALET LFSVLLSLCRLIAPYTPFLTELMYQNLKVLIDPVS VQDKDTLSIHYLM LPRVREELIDKKTESAVSQM
QSVIELGRVIRDRKTIPIKYPLKEIVVIHQDPEALKDIKSLEKYIIEELNVRKVTLSTDKNKYGIRLRAEPDHMV
LGKRLKGAFKAVMTSIKQLSSEEELEQFQKTGTIVVEGHELHDEDIRLMYTFDQATGGTAQFEAHSDAQA LVLLDV
TPDQSMVDEGMAREVINRIQKL RKKCNLVPTDEITVYYKAKSEGTYLNSVIESHTEFI FTTIKAPLKPYPVSPSD
KVL IQEKTQLKGSELEITLTRGSSLP GPACAYVNLN ICANGSEQGGVLLLENPKGDNRLDLLKLKSVVTSIFGVK
NTELAVFHDETEIQNQTDLLSLSGKTL CVTAGSAPSLINSSSTLLCQYINLQLLNAKPQECLMGTVGTLLLENPL
GQNGLTHQGLLYEAAKVFLRSRKLKFLNETQTQEITEDIPVKTLNMKTVYVSVLPTTADF

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FIGURE 400

GAAAAGCGCGCGGGGATTCCAGGAGTCGTGGTTTCTTGCCCTTGATGTACTGGAGCAATCAGATCACACGGCGG
CTTGAGAGTGAGTGCAAGTTTTTATGAGTGGAATTAGCCCTCAGCAGATGGGGGAGCCAGAAGGCAGTTGGAGT
GGGAAGAACCCAGGGACCATGGGCGCCTCCAGGCTCTATACCCTGGTGCTGGTCCTGCAGCCTCAGCGAGTTCTC
CTGGGCATGAAAAAGCGAGGCTTCGGGGCCGGCCGGTGGAATGGCTTTGGGGGCAAAGTGCAAGAAGGAGAGACC
ATCGAGGATGGGGCTAGGAGGGAGCTGCAGGAGGAGAGCGGTCTGACAGTGGACGCCCTGCACAAGGTGGGCCAG
ATCGTGTTTGAGTTCGTGGGCGAGCCTGAGCTCATGGACGTGCATGTCTTCTGCACAGACAGCATCCAGGGGACC
CCCGTGGAGAGCGACGAAATGCGCCCATGCTGGTTCCAGCTGGATCAGATCCCCTTCAAGGACATGTGGCCCGAC
GACAGCTACTGGTTTCCACTCCTGCTTCAGAAGAAGAAATTCCACGGGTACTTCAAGTTCCAGGGTCAGGACACC
ATCCTGGACTACACACTCCGCGAGGTGGACACGGTCTTAGCGGGAGCCCAGGGCAGCCCCTGGGCAGGAGACGTGG
CTGCTGAACAGCTGCAAACCATCTTCACCTGGGGGCATTGAGTGGCGCAGAGCCGGGTTTCATCTGGAATTAAT
GGATGGAAGGGAAAAATAAGCTATCTAGCGGTGAAAAA

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FIGURE 401

MSGISPQQMGEPEGWSGKNPGTMGASRLYTLVLVLQPQRVLLGMKKRGFGAGRWNFGGKVEGETIEDGARRE
LQEESGLTVDALHKVGQIVFEFVGEPELMDVHVFCDSIQGTPVESDEMPCWFQLDQIPFKDMWPDDSYWFPLL
LQKKKFHGYFKFQGQDTILDYTLREVDTV

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FIGURE 402

GGCACGAGGCAGGCCACCCGCCGCTAAGCTGAGAAGGGAGAGCGAGCTTAGGACCGCCTGCCCGGGGCAACCCCG
AACCAAGCTTTAGCCGCCGAGGCCGCGTGTCCCAAAGGCCAGTCATCCCTCCTCTGTGTTGCC**ATG**GGAATTCAA
GGCCTGGCCAAACTAATTGCTGATGTGGCCCCCAGTGCCATCCGGGAGAATGACATCAAGAGCTACTTTGGCCGT
AAGGTGGCCATTGATGCCTCTATGAGCATTATCAGTTCCTGATTGCTGTTGCCAGGGTGGGGATGTGCTGCAG
AATGAGGAGGGTGAGACCACCAGCCACCTGATGGGCATGTTCTACCGCACCATTCGCATGATGGAGAACGGCATC
AAGCCCGTGTATGTCTTTGATGGCAAGCCGCCACAGCTCAAGTCAGGCGAGCTGGCCAAACGCAGTGAGCGGCGG
GCTGAGGCAGAGAAGCAGCTGCAGCAGGCTCAGGCTGCTGGGGCCGAGCAGGAGGTGGAAAAATTCTACTAAGCGG
CTGGTGAAGGTCACTAAGCAGCACAAATGATGAGTGCAACATCTGCTGAGCCTCATGGGCATCCCTTATCTTGAT
GCACCCAGTGAGGCAGAGGCCAGCTGTGCTGCCCTGGTGAAGGCTGGCAAAGTCTATGCTGCGGCTACCGAGGAC
ATGGACTGCCTCACCTTCGGCAGCCCTGTGCTAATGCGACACCTGACTGCCAGTGAAGCCAAAAAGCTGCCAATC
CAGGAATTCACCTGAGCCGGATTCTGCAGGAGCTGGGCCTGAACCAGGAACAGTTTGTGGATCTGTGCATCCTG
CTAGGCAGTGACTACTGTGAGAGTATCCGGGGTATTGGGGCCAAAGCGGGCTGTGGACCTCATCCAGAAGCACAAG
AGCATCGAGGAGATCGTGCGGCGACTTGACCCCAACAAGTACCCTGTGCCAGAAAATTGGCTCCACAAGGAGGCT
CACCAGCTCTTCTTGGAACCTGAGGTGCTGGACCCAGAGTCTGTGGAGCTGAAGTGAGCGAGCCAAATGAAGAA
GAGCTGATCAAGTTCATGTGTGGTGAAGAGCAGTTCTCTGAGGAGCGAATCCGCAGTGGGGTCAAGAGGCTGAGT
AAGAGCCGCCAAGGCAGCACCCAGGGCCGCTGGATGATTTCTTCAAGGTGACCGGCTCACTCTCTTCAGCTAAG
CGCAAGGAGCCAGAACCCAAGGGATCCACTAAGAAGAAGGCAAAGACTGGGGCAGCAGGGAAGTTTAAAGGGGA
AAATAAATGTGTTTCCCCATTATACCTCCTTCACCCCAAGATATTGCGCTCTTGTACCCTTAAGAGCTACAGCT
AGAGAAACCTTCACGGGGTGGAGAGAGGATTCTAAGGCTTTTCTAGCGTGACCCTTTTTCAGTAGTGCTAGTCCCT
TTTTTACTTGATCTTAATGGCAAGAAGGCCACAGAGGTACTTTTCTTTTTTAGCTCAGGAAAATATGTCAGGCT
CAAACCACTTCTCAGGCAGTTTAATGGACACTAAGTCCATTGTTACATGAAAGTGATAGATAGCAACAAGTTTTG
GAGAAGAGAGAGGGAGATAAAAGGGGGAGACAAAAGATGTACAGAAATGATTTCTGGCTGGCCAACTGGTGGCC
AGTGGGAGGTGATGGTGGACCTAGACTGTGCTTTTCTGTCTTGTTACGCCTTGACCCACCTTGAGAGAGAGCCAC
CAGGAAGGCGCATCTTAGCAGATGGGAGGAACTGCTGAGAGAAGATGGGCAGAAAGCTGGAGCCCCCTGGAGTTGG
CTGTGTCTGTGTTTGTGACTGATTACTGGCTGTGTCTTGGGTGGGCAGAACTCGAACTTGCTATGTAATTTGTG
TCTAGTTATTACAGAGGAGTAAGATGGTGATGTTACCTGGCAATCAGCTGAGTTGAGACTTTGGAATAAGACACT
GGTTTTCATGCGCTGTTTTTGTGTTTAAAGTTATGAAGAAAAAAGTCAATAAAATTCTAAAAGTAAAAAAAAAAAA
AAAAAA

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FIGURE 403

MGIQGLAKLIADVAPSAIRENDIKSYFGRKVAIDASMSIYQFLIAVRQGGDVLQNEEGETTSHLMGMFYRTIRMM
ENGIKPVYVFDGKPPQLKSGELAKRSERRAEAEKQLQQAQAAGAEQEVEKFTKRLVKVTKQHNDCKHLLSLMGI
PYLDAPSEAEASCAALVKAGKVYAAATEDMDCLTFGSPVLMRHLTASEAKKLP IQEFHLSRILQELGLNQE QFVD
LCILLGSDYCESIRGIGPKRAVDLIQKHKSIEEIVRRLDPNKYPVPENWLHKEAHQLFLEPEVLD PESVELKWSE
PNEEELIKFMCGEKQFSEERIRSGVKRLSKSRQGSTQGRLD DFFKVTGSLSSAKRKEPEPKGSTKKKAKTGAAGK
FKRGK

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FIGURE 404

AGTCCTGCGATTTCGGGTGTAGAGGGAGCAGGGGCCTGCGGGGACCTGGTGTGGGTGGAGTGGGGACAAGCGGTG
GAGAAGGGTACGCCAGGGTCGCTGAGAGACTCTGTTCTCCCTGGAGGGACTGGTTGCCATGAGAGCAGCCGTCTG
AGGGGACGCAGCCTGCACTACGCGCCCCAAGAGGCTGTGCGTGGCGAGCAGGTCACGTGACGGGAGCGCGGGCTT
TGGAAGGCGGCTGAACGTACAGGCCACCCGCCGCTAAGCTGAGAAGGGAGAGCGAGCTTAGGACCGCCTGCCCCGG
GCAACCCCGAACCAAGCTTTAGCCGCCGAGGCCGCGTGTCCCAAAGGCCAGTCATCCCTCCTCTGTGTTGCCATG

GGAATTCAAGGCCTGGCCAACTAATTGCTGATGTGGCCCCAGTGCCATCCGGGAGAATGACATCAAGAGCTAC
TTTGGCCGTAAAGGTGGCCATTGATGCCTCTATGAGCATTTATCAGTTCCTGATTGCTGTTGCCAGGGTGGGGAT
GTGCTGCAGAATGAGGAGGGTGAGACCACCAGCCACCTGATGGGCATGTTCTACCGCACCATTCGCATGATGGAG
AACGGCATCAAGCCCGTGTATGTCTTTGATGGCAAGCCGCCACAGCTCAAGTCAGGCGAGCTGGCCAAACGCAGT
GAGCGGCGGGCTGAGGCAGAGAAGCAGCTGCAGCAGGCTCAGGCTGCTGGGGCCGAGCAGGAGGTGGAAAAATTC
ACTAAGCGGCTGGTGAAGGTCACTAAGCAGCACAAATGATGAGTGCAAACATCTGCTGAGCCTCATGGGCATCCCT
TATCTTGATGCACCCAGTGAGGCAGAGGCCAGCTGTGCTGCCCTGGTGAAGGCTGGCAAAGTCTATGCTGCGGCT
ACCGAGGACATGGACTGCCTCACCTTCGGCAGCCCTGTGCTAATGCGACACCTGACTGCCAGTGAAGCCAAAAAG
CTGCCAATCCAGGAATTCACCTGAGCCGGATTCTGCAGGAGCTGGGCCTGAACCAGGAACAGTTTGTGGATCTG
TGCATCCTGCTAGGCAGTGACTACTGTGAGAGTATCCGGGGTATTGGGCCAAGCGGGCTGTGGACCTCATCCAG
AAGCACAAGAGCATCGAGGAGATCGTGCGGCGACTTGACCCCAACAAGTACCCTGTGCCAGAAAATTGGCTCCAC
AAGGAGGCTCACCAGCTCTTCTTGGAACCTGAGGTGCTGGACCCAGAGTCTGTGGAGCTGAAGTGGAGCGAGCCA
AATGAAGAAGAGCTGATCAAGTTCATGTGTGGTGAAGCAGTTCTCTGAGGAGCGAATCCGCAGTGGGGTCAAG
AGGCTGAGTAAGAGCCGCCAAGGCAGCACCCAGGGCCGCTGGATGATTTCTTCAAGGTGACCGGCTCACTCTCT
TCAGCTAAGCGCAAGGAGCCAGAACCCAAGGGATCCACTAAGAAGAAGGCAAAGACTGGGGCAGCAGGGAAGTTT
AAAAGGGGAAAATAAATGTGTTTCCCCATTATACCTCCTTCACCCAGAAATATTTGCCGTCTTGTAACCTTAAGA
GCTACAGCTAGAGAAACCTTCACGGGGTGGAGAGAGGATTCTAAGGCTTTTCTAGCGTGACCCTTTTCAGTAGTG
CTAGTCCCTTTTTTACTTGATCTTAATGGCAAGAAGGCCACAGAGGTACTTTTCTTTTTTAGCTCAGGAAAATA
TGTCAGGCTCAAACCACTTCTCAGGCAGTTTAAATGGACACTAAGTCCATTGTTACATGAAAGTGATAGATAGCAA
CAAGTTTTGGAGAAGAGAGAGGGAGATAAAAGGGGGAGACAAAAGATGTACAGAAATGATTTCTGGCTGGCCAA
CTGGTGGCCAGTGGGAGGTGATGGTGGACCTAGACTGTGCTTTTCTGTCTTGTTACGCCTTGACCCACCTTGAGA
GAGAGCCACCAGGAAGGCGCATCTTAGCAGATGGGAGGAAGTCTGAGAGAAGATGGGCAGAAAGCTGGAGCCCC
TGGAGTTGGCTGTGTCTGTGTTTGTGACTGATTACTGGCTGTGTCTTGGGTGGGCAGAACTCGAAGTTGCTATG
TAATTTGTGTCTAGTTATTCAGAGGAGTAAGATGGTGTGTTACCTGGCAATCAGCTGAGTTGAGACTTTGGAA
TAAGACACTGGTTTTTCATGCGCTGTTTTGTTTTAAAGTTATGAAGAAAAAAGTCAATAAAATTCTAAAAGTAAA
AAAAAAAAAAAAAAAA

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FIGURE 405

MGIQGLAKLIADVAPSAIRENDIKSYFGRKVAIDASMSIYQFLIAVRQGGDVLQNEEGETTSHLMGMFYRTIRMM
ENGIKPVYVFDGKPPQLKSGELAKRSERRAEAEKQLQQAQAAGAEQEVEKFTKRLVKVTKQHNDCKHLLSLMGI
PYLDAPSEAEASCAALVKAGKVYAAATEDMDCLTFGSPVLMRHLTASEAKKLPIQEFHLSRILQELGLNQEQFVD
LCILLGSDYCESIRGIGPKRAVDLIQKHKSIEEIVRRLDPNKYPVPENWLHKEAHQLFLEPEVLDPEVELKWSE
PNEELIKFMCGEKQFSEERIRSGVKRLSKSRQGSTQGRLDFFKVTGSLSSAKRKEPEPKGSTKKKAKTGAAGK
FKRGK

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FIGURE 406

GCACGCCCAGCGAGTTCCAGAGGCGCCAGTGGAAGCTGCGGCGGCGGTGTCTCGCGTTCGGCGGGATTTCCTTTC
 GCTCCGGCTCGGCCCTAGGTCTACGTCCCCAGCTCCAGCCGCCGGCTCGGACTCGGTCTCTGACCCCAACTCGGT
 CCCCTAGTCCGGCCCCGGCTCCGGGCCCCCAACCCTCGCTCCGGCCCCGGCCCGGCCCCACCCAGCCCTGCCG
 CCGGCCCCAGGCCCGGCCGCGCCGTCCCGCCTGGAGCCGCCGCGCGCCCCAGCCCCCTGCACCCCTCGG
 CCCCTCGCCTTCCTCTTCCCGGCGCGGCCCCCGGCTTCCGCGCGCCGCCGCCACCAATCCTCTTGCTACCATG

TCCGTGGAGCTCGAGGAGGCCCTGCCAGTGACGACCGCCGAGGGAATGGCCAAGAAGGTGACCAAGGCTGGCGGC
 TCGGCGGCGTTGTCCCCATCTAAGAAGAGGAAGAATAGCAAGAAGAAGAACCCAGCCGGGCAAGTACAGCCAGCTG
 GTGGTGGAGACCATCCGTAGGTGGGCGAGCGCAACGGCTCGTCGCTGGCCAAGATCTACACCGAGGCCAAGAAG
 GTTCCGTGGTTTCGACCAGCAGAATGGGCGCACCTACCTCAAGTACTCGATCAAGGCGCTGGTGCAGAACGACACG
 CTTCTGCAGGTGAAGGGCACCGGCGCCAACGGTTTCCTTCAAGCTCAACCGCAAGAAGCTGGAGGGCGGCGGGGAG
 CGGCGCGGAGCCCCGGCGGCGCCACCGCCCCGGCCCCCACCGCGCACAAAGCGAAGAAGGCAGCCCCGGGCGCG
 GCCGGCTCCCGGCGCGCGGACAAGAAGCCCGCCAGGGGCCAGAAGCCGGAGCAGCGCTCGCACAGAAGGGCGCT
 GCGGCCAAGAAGGACAAAGGCGGCAAGGCCAAGAAGACGGCGGCGCGCGGGGGCAAGAAGGTGAAGAAGGCGGCC
 AAGCCCAGCGTCCCCAAAGTGCCCAAGGGCCGCAAGTGAGCGTGTTCGGCCGGTCAGAGCGGCCGGCGTGGGCTTT
 TCGGTGTTTTTGTTCCTTACCCCAAGTGACGTAGATTTTGTACGGCTCACGCCGGCCGGGGCCGCGAGGCCTGG
 TCTGAGCCTCAGGGAGGGGCCCCGGGTCTCTCAGTCTTTCCCTCCCCAACGATGTAGCGTTTTTCGTTGTTT
 GCTTTAGGTTTTTGAAACAGCCCCGGCGACGCTCTATTGGCTCTCGGCCTTGGCAACGGCCGTCGTCATGGTTA
 CTGGCCCCTAGGCGCCGATGGCCGAGGCCGCGCCTGCCACCGGGCGGGTTCGCTGGTTGGCCGGGCCCAGGCGC
 GCGGGGACGCGGAGGCCGCGCATCCTTTCCAGCTCCCCACCTCCTTGCTTTGGGTGCGCGACAAACAATCGC
 TCCGGGCTCAGGGCTGCGCGGCTCTTCCCTTCATTCCATGGGCCTTTTTTTGGGCACAATAAAGCGTTTAAACCT
 TTC

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FIGURE 407

MSVELEEALPVTTAEGMAKKVTKAGGSAALSPSKKRKNSKKKNQPGKYSQLVVETIRRLGERNGSSLAKIYTEAK
KVPWFDQQNGRTYLYKYSIKALVQNDTLLQVKGTGANGSFKLNRKKLEGGGERRGAPAAATAPAPTAHKAKKAAPG
AAGSRRADKKPARGQKPEQRSHKKGAGAKKDKGGKAKKTAAAGGKKVKAAPSVPKVPKGRK

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FIGURE 408

ACGCGTCCGCTTCGGAATGAGAGACTCAACCATAATAGAAAAGATGGAGAACTATTAACCACCATTCCTTCAGTGG
GCTGTGATTTTCAGAGGGGAATACTAAGAAATGGTTTTCCATACTGGAACCCAAAGGTAAAGACACTCAAGGACA
GACATTTTGGCAGAGCATAGATGAAAATGGCAAGTTCCTGGCTTTCCTTCTGCTCAACTTTCATGTCTCCCTC
TTCTTGGTCCAGCTGCTCACTCCTTGCTCAGCTCAGTTTTCTGTGCTTGGACCCTCTGGGCCCATCCTGGCCATG
GTGGGTGAAGACGCTGATCTGCCCTGTACCTGTTCCCGACCATGAGTGCAGAGACCATGGAGCTGAGGTGGGTG
AGTTCACGCCAAGGCAGGTGGTGAACGTGTATGCAGATGGAAAGGAAGTGAAGACAGGCAGAGTGCACCATAT
CGAGGGAGAACTTCGATTCTGCGGGATGGCATCACTGCAGGGGAAGGCTGCTCTCCGAATACACAACGTACAGCC
TCTGACAGTGGAAAGTACTTGTGTTATTTCCAAGATGGTGACTTCTACGAAAAGCCCTGGTGGAGCTGAAGGTT
GCAGCATTGGGTTCTGATCTTCACATTGAAGTGAAGGGTTATGAGGATGGAGGGATCCATCTGGAGTGCAGGTCC
ACTGGCTGGTACCCCCAACCCCAATAAAGTGGAGCGACACCAAGGGAGAGAACATCCCGGCTGTGGAAGCACCT
GTGGTTGCAGATGGAGTGGGCCTGTATGCAGTAGCAGCATCTGTGATCATGAGAGGCAGCTCTGGTGGGGGTGTA
TCCTGCATCATCAGAAATTCCTCCTCGGCCTGGAAAAGACAGCCAGCATATCCATCGCAGACCCCTTCTTCAGG
AGCGCCAGCCCTGGATCGCGGCCCTGGCAGGGACCCTGCCTATCTCGTTGCTGCTTCTCGCAGGAGCCAGTTAC
TTCTTGTGGAGACAACAGAAGGAAAAAATTGCTCTGTCCAGGGAGACAGAAAGAGAGCGAGAGATGAAAGAAATG
GGATACGCTGCAACAGAGCAAGAAATAAGCCTAAGAGAGAAGCTCCAGGAGGAACCTCAAGTGGAGGAAAAATCCAG
TACATGGCTCGTGGAGAGAAGTCTTTGGCCTATCATGAATGGAAGTGGCCCTCTTCAAACCTGCGGATGTGATT
CTGGATCCAGACACGGCAAACGCCATCCTCCTTGTTTCTGAGGACCAGAGGAGTGTGCAGCGTGTGAAGAGCCG
CGGGATCTGCCAGACAACCCTGAGAGATTTGAATGGCGTTACTGTGTCCTTGGCTGTGAAAACCTTCACATCAGGG
AGACATTACTGGGAGGTGGAAGTGGGGGACAGAAAAGAGTGGCATATTGGGGTATGTAGTAAGAACGTGGAGAGG
AAAAAAGGTTGGGTCAAAATGACACCGGAGAACGGATACTGGACTATGGGCCTGACTGATGGGAATAAGTATCGG
GCTCTCACTGAGCCCAGAACCAACCTGAAACTTCCTGAGCCTCCTAGGAAAGTGGGGATCTTCTGGAATATGAG
ACTGGAGAGATCTCGTTCTATAATGCCACAGATGGATCTCATATCTACACCTTCCGCACGCCTCTTTCTCTGAG
CCTCTATATCCTGTTTTTCAGAATTTTGACCTTGGAGCCCACTGCCCTGACCATTGCCCCAATACCAAAAGAAGTA
GAGAGTTCCCCCGATCCTGACCTAGTGCCTGATCATTCCCTGGAGACACCACTGACCCCGGGCTTAGCTAATGAA
AGTGGGGAGCCTCAGGCTGAAGTAACATCTCTGCTTCTCCCTGCCACCCTGGAGCTGAGGTCTCCCTTCTGCA
ACAACCAATCAGAACCATAAGCTACAGGCACGCACTGAAGCACTTTACTGATATTTCATTCCATTATTCCATATGA
CAGTTGTTTTGAGTTTCGTACCACCTTATTGTCCCCTTATACAGATAAGGAAACTGGGGTGCAGAAAGGTGAATT
AACTTTACAAAGTAGACATGACAAGTGAACAGCAGAGCTGGGATCTAAACAGCAATAACTAACATTAACAGAGAA
TTTAAATGTTCTTAGTGCTGTGTTATAAGCTTTGGTGGATGTCACTCCTTTAATCCTCACAACACCTGTCCGG
TAGTCATATTTGCAAGTATGGAAGCTGAGGCAGGGCAACATGAAGTAACCTACATAATTCATACAGTAATTTGT
GCAGTTGGGAGATGTTACGCCTTAGTCCCTGGCTAATTGCCTGTTCTTTTCCAGCCTGATTTTTTTTCCACAGG
AAGAGCCCACATGTAGCCCTGAGGTTTCCTTCCCAGGACAGCTGCAGGGTAGAGATCATTTTAAAGTGCTTGTGGA
GTTGACATCCCTATTGACTCTTCCCAGCTGATATCAGAGACTTAGACCCAGCACTCCTTGGATTAGCTCTGCAG
AGTGTCTTGGTTGAGAGAATAACCTCATAGTACCAACATGACATGTGACTTGGAAAGAGACTAGAGGCCACACTT
GATAAATCATGGGGCACAGATATGTTCCCACCCAACAAATGTGATAAGTGATTGTGCAGCCAGAGCCAGCCTTCC
TTCAATCAAGGTTTCCAGGCAGAGCAAATACCTAGAGATTCTCTGTGATATAGGAAATTTGGATCAAGGAAGCT
AAAAGAATTACAGGGATGTTTTTAATCCCACTATGGACTCAGTCTCCTGGAAATAGGTCTGTCCACTCCTGGTCA
TTGGTGGATGTTAAACCCATATTCCTTTCAACTGCTGCCTGCTAGGGAAAAGTCTCCTCATTATCATCACTATT
ATTGCTCACCCTGTATCCCTCTACTTGGCAAGTGGTTGTCAAGTTCTAGTTGTTCAATAAATGTGTTAATAAT
GAAAAA

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FIGURE 409

MKMASSLAFLLLNFHVSFLVQLLTPCSAQFSVLGSPGPIILAMVGEDADLPCHLFPTMSAETMELRWVSSSLRQV
VNVYADGKEVEDRQSAPYRGRSILRDGITAGKAALRIHNVTASDSGKYLCYFQDGFYEKALVELKVAALGSDL
HIEVKGYEDGGIHLECRSTGWYPQPQIKWSDTKGENIPAVEAPVVADGVGLYAVAASVIMRGSSGGGVSCIIRNS
LLGLEKTASISIADPFFRSAQPWIAALAGTLPISLLLLAGASYFLWRQQKEKIALSRETEREREMKEMGYAATEQ
EISLREKLQEELKWRKIQYMARGEKSLAYHEWKMALFKPADVILDPDTANAILLVSEDQRSVQRAEEPRLPDNP
ERFEWRYCVLGCENFTSGRHYWEVEVGDRKEWHIGVCSKNVERKKGWVKMTPENGYWTMGLTDGNKYRALTEPRT
NLKLPEPPRKVGIFLDYETGEISFYNATDGSHIYTFPHASFSEPLYPVFRILTLEPTALTICPIPKEVESSPDPD
LVPDHSLETPLTPGLANESGEPQAEVTSLLLPAHPGAEVSPSATTNQNHKLQARTEALY

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FIGURE 410

CGCACTCCCTGCTGGGTGAGCAGCACTGTAAAGATGAAGCTGGCTAACTGGTACTGGCTGAGCTCAGCTGTTCTT
GCCACTTACGGTTTTTTGGTTGTGGCAAACAATGAAACAGAGGAAATTAAAGATGAAAGAGCAAAGGATGTCTGC
CCAGTGAGACTAGAAAGCAGAGGGAAATGCGAAGAGGCAGGGGAGTGCCCCCTACCAGGTAAGCCTGCCCCCTTG
ACTATTCAGCTCCCGAAGCAATTCAGCAGGATCGAGGAGGTGTTCAAAGAAGTCCAAAACCTCAAGGAAATCGTA
AATAGTCTAAAGAAATCTTGCCAAGACTGCAAGCTGCAGGCTGATGACAACGGAGACCCAGGCAGAAACGGACTG
TTGTTACCCAGTACAGGAGCCCCGGGAGAGGTTGGTGATAACAGAGTTAGAGAATTAGAGAGTGAGGTTAACAAG
CTGTCTCTGAGCTAAAGAATGCCAAAGAGGAGATCAATGTACTTCATGGTCGCCTGGAGAAGCTGAATCTTGTA
AATATGAACAACATAGAAAATTATGTTGACAGCAAAGTGGCAAATCTAACATTTGTTGTCAATAGTTTGATGGC
AAATGTTCAAAGTGTCCTCAGCCAAGAACAATACAGTCACGTCCAGTTCAACATCTAATATATAAGATTGCTCT
GACTACTACGCAATAGGCCAAAAGAAGCAGTGAGACCTACAGAGTTACACCTGATCCCAAAAATAGTAGCTTTGAA
GTTTACTGTGACATGGAGACCATGGGGGGAGGCTGGACAGTGCTGCAGGCACGTCTCGATGGGAGCACCAACTTC
ACCAGAACATGGCAAGACTACAAAGCAGGCTTTGGAAACCTCAGAAGGGAATTTTGGCTGGGGAACGATAAAATT
CATCTTCTGACCAAGAGTAAGGAAATGATTCTGAGAATAGATCTTGAAGACTTTAATGGTGTGCGAACTATATGCC
TTGTATGATCAGTTTTATGTGGCTAATGAGTTTCTCAAATATCGTTTACACGTTGGTAACTATAATGGCACAGCT
GGAGATGCATTACGTTTCAACAAACATTACAACCACGATCTGAAGTTTTTCACCACTCCAGATAAAGACAATGAT
CGATATCCTTCTGGGAACGTGTGGGCTGTACTACAGTTCAGGCTGGTGGTTTGATGCATGTCTTCTGCAAACCTTA
AATGGCAAATATTATCACCAAAAATACAGAGGTGTCCGTAATGGGATTTTCTGGGGTACCTGGCCTGGTGTAAGT
GAGGCACACCCTGGTGGCTACAAGTCCTCCTTCAAAGAGGCTAAGATGATGATCAGACCCAAGCACTTTAAGCCA
TAAAATCACTCTGTTTATTCCTCCAGGTATTCGTTATCTAATAGGGCAATTAATTCCTTCAGCACTTTAGAATATG
CCTTGTTTCATATTTTTCATAGCTAAAAAATGTTTGACATCCTTTGAGATATTTTATTACTAAAATCTGCC

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FIGURE 411

MKLANWYWLSSAVLATYGFLVVANNETEEIKDERAKDVCPVRLESRGKCEEAGECPYQVSLPPLTIQLPKQFSRI
EEVFKEVQNLKEIVNSLKKSCQDCKLQADDNGDPGRNGLLLPSTGAPGEVGDNRVRELESEVNKLSSELKNAKEE
INVLHGRLEKLNLVNMNNIENYVDSKVANLTFVVNSLDGKCSKCPSEQEQSRPVQHLYKDCSDYYAIGKRSSE
TYRVTPDPKNSSFEVYCDMETMGGGWTVLQARLDGSTNFTRTWQDYKAGFGNLRREFWLGNDKIHLLTKSKEMIL
RIDLEDFNGVELYALYDQFYVANEFKYLRLHVGNYNGTAGDALRFNKHYNHDLKFFTPDKDNDRYPSGNCGLYY
SSGWWFDACLSANLNGKYHHQYRGVRNGIFWGTWPGVSEAHPPGGYKSSFKEAKMMIRPKHFKP

FIGURE 412

TCCCAGCTGCGCGTCGCGAGTCCCGACGCGAGAAGGGCTGGAGTCGGCGTCCAGCCTAGAGCCCCGGTGGGAGCC
AGGCCGGGACGCGTGCACCATGCCCTACCTGCTCATCAGCACCCAGATCCGCATGGAGGTGGGCCCCACTATGGT
GGGCGATGAACAGTCGGATCCAGAGCTGATGCAGCATCTGGGGGCTTCAAAGAGAAGAGCCTTGGGAAACAACCTT
TTATGAATACTACGTCGATGACCCTCCCCGCATAGTCCTGGACAAGCTGGAACGCAGGGGCTTCCGTGTGCTGAG
CATGACGGGGGTGGGCCAGACGCTGGTGTGGTGTCTGCACAAGGAGTGACCTTCTCATGCTGATTTGCAGACGGG
GCACCCCTGTGGAGGGGCTGCTGTGGGCCCTGACCTCCAAGCTCCTGCCTCACCGTCTGCCTTGCTCCTCTCTTC
CCAAATCATCACCGCCATGGGGCCAGCCCCAAAGGGCAGTGAATGGCCTTCTCTGAAACCCTGCGTCAAGCAGTG
GGAGAGGGCAGTGGCCGGTGCCCTGGTGCTCCCAGCTGCCCTCCTGCTTCGGGCCTGGGCCGAGGGCCTTGTGTA
GGCCATGTTCTCGGGCAGCTGCCCCGGGCCGAGCTGGGCACTCCAGCGGCCCTGGCGCGTGGCTCCTGCATAG
CTAGCCCAAGCCAATAAAGGGCTGTGATGAGTGGCTGC

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FIGURE 413

MPYLLISTQIRMEVGPTMVGDEQSDPELMQHLGASKRRALGNNFYEYYVDDPPRIVLDKLERRGFRVLSMTGVGQ
TLVWCLHKE

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FIGURE 414

GCGTCTGCCAGGAGCTACGGCCGGAAG**ATG**GCGGCGGCCGAGAGTTGTCGCTACTGGAGAAGTCCCTGGGACTG
 AGTAAGGGGAATAAATACAGTGCTCAGGGCGAGCGACAGATTCCAGTTCTTCAGACAAACAATGGTCCAAGTCTA
 ACAGGATTGACTACTATAGCAGCTCATCTAGTCAAGCAAGCCAACAAAGAATATTTGCTGGGGAGTACTGCAGAA
 GAAAAAGCAATCGTTCAGCAGTGGTTAGAATACAGGGTCACTCAAGTAGATGGGCACTCCAGTAAAAATGACATC
 CACACACTGTTGAAGGATCTTAATTCATATCTTGAAGATAAAGTCTACCTTACAGGGTATAACTTTACATTAGCA
 GATATACTATTGTACTATGGACTTCATCGCTTTATAGTTGACCTGACAGTTCAAGAAAAGGAGAAATATCTTAAT
 GTGTCTCGCTGGTTTTGTGCACATTCAGCATTATCCAGGCATCAGGCAACATCTGTCTAGTGTTGTCTTCATCAAG
 AACAGACTATATACTAATTCCCACT**TAGA**AGCTGTCCATGCCATACAGAAGATCTATTAAAAGTGTTTTAAATGGA
 AAATGTACTCTAGACCACAGGACTAATGTAAATTAATATACAGTCATTCATTATTTGTTGAAGTTGATAGAATTT
 TTGAAGTGTAACCTTGTGTCTGAATGTTTTATTTGTTCTTTAGCTGAAGTTTTGCAATTTTTATGTCAAAAATTCA
 ATTGCTATTAAACAAGTTGAGATCCAGTTATAAATTAACCTTGTTTTTAGTAGATGACATTTATTTCAATAAAAG
 TTGCAAATCGGGCTTAATCTTAAATTTGGTGGTCATTTCAATGGTTGACATATTTGGCTATTTATTAACCTCTCT
 TTCATATTCTAAAATTCATTTTCCCCTTATGGATATTTATGGTAGTTTGTTAAGAAGTATAAATTGTGCCAAGG
 AAGCCAAAAGGGAAGACAGATGGATTTGTTTTAAATGTTTATGTGAGCTAGTAAATGTGGGAAAAAAAAAAAAA
 AAAAAAAAAAAAAAAAAA

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FIGURE 415

MAAAEELSLEKSLGLSKGNKYSAQGERQIPVLQTNNGPSLTGLTTIAAHLVKQANKEYLLGSTAEKAIVQOWL
EYRVTQVDGHSSKNDIHTLLKDLNSYLEDKVYLTGYNFTLADILLYYGLHRFIVDLTVQEKEKYLNVSRWFCHIQ
HYPGIRQHLSSVVFIGNRLYTNSH

FIGURE 416

CCGGGACTTTGCAGGCAGCGGCGGCCGGGGCGGAGCGGGATCGAGCCCTCGCCGAGGCCTGCCGCCATGGGGCC
GCGCCGCCGCGCCGCGCTGTACCCGGGCGCGCGGGCCGTGAGCGTC**ATGC**CTTGGCCGGGGCCCTGCGGGC
GGCCCATGCGCGCCGGCGCTGGAGGCCCTGCTCGGGGCGGGCGGCTGCGGCTGCTCGACTCCTCGCAGATCGTC
ATCATCTCCGCCGCGCAGGACGCCAGCGCCCCGCGGCTCCCACCGGCCCCGCGGCGCCCGCGGCCCGCTGC
GACCCTGACCTGCTGCTCTTCGCCACACCGCAGGCGCCCCGGCCACACCCAGTGCGCCGCGGCCCGCGCTCGG
CGCCCGCCGGTGAAGCGGAGGCTGGACCTGGAACTGACCATCAGTACCTGGCCGAGAGCAGTGGGCCAGCTCGG
GGCAGAGGCCGCCATCCAGGAAAAGGTGTGAAATCCCCGGGGGAGAAGTCACGCTATGAGACCTCACTGAATCTG
ACCACCAAGCGCTTCTTGAGCTGCTGAGCCACTCGGCTGACGGTGTCTGTCGACCTGAAGTGGGCTGCCGAGGTG
CTGAAGGTGCAGAAAGCGCGCATCTATGACATACCAACGTCTTTGAGGGCATCCAGCTCATTGCCAAGAAGTCC
AAGAACCACATCCAGTGGCTGGGCAGCCACACCACAGTGGGCGTGGCGGACGGCTTGAGGGGTTGACCCAGGAC
CTCCGACAGCTGCAGGAGAGCGAGCAGCAGCTGGACCACCTGATGAATATCTGTACTACGCAGCTGCGCCTGCTC
TCCGAGGACACTGCAGGCCAGCGCTGGCCTACGTGACGTGTCAGGACCTTCGTAGCATTGCAGACCCTGCAGAG
CAGATGGTTATGGTGATCAAAGCCCCCTCTGAGACCCAGCTCCAAGCCGTGGACTCTTCGGAGAACTTTCAGATC
TCCCTTAAGAGCAAACAAGGCCGATCGATGTTTTCTGTGCCCTGAGGAGACCGTAGGTGGGATCAGCCCTGGG
AAGACCCCATCCAGGAGGTCACTTCTGAGGAGGAGAACAGGGCCACTGACTCTGCCACCATAGTGTACACCACCA
CCATCATCTCCCCCTCATCCCTACCACAGATCCAGCCAGTCTCTACTCAGCCTGGAGCAAGAACCCTGTGTG
TCCCGGATGGGCAGCCTGCGGGCTCCCGTGGACGAGGACCGCTGTCCCGCTGGTGGCGGCCGACTCGCTCCTG
GAGCATGTGCGGGAGGACTTCTCCGGCCTCCTCCCTGAGGAGTTTCATCAGCCTTTCCCCACCCACGAGGCCCTC
GACTACCCTTCGGCCTCGAGGAGGGCGAGGGCATCAGAGACCTCTTCGACTGTGACTTTGGGGACCTCACCCCC
CTGGATTTCT**GA**CAGGGCTTGAGGGACCAGGGTTTCCAGAGTAGCTCACCTTGTCTCTGCAGCCCTGGAGCCCC
CTGTCCCTGGCCGTCTCCAGCCTGTTTGGAAACATTTAATTTATACCCCTCTCCTCTGTCTCCAGAAGCTTCT
AGCTCTGGGGTCTGGCTACCGCTAGGAGGCTGAGCAAGCCAGGAAGGGAAGGAGTCTGTGTGGTGTGTATGTGCA
TGCAGCCTACACCCACACGTGTGTACCGGGGGTGAATGTGTGTGAGCATGTGTGTGTGCATGTACCGGGGAATGA
AGGTGAACATACACCTCTGTGTGTGCACTGCAGACACGCCCCAGTGTGTCCACATGTGTGTGCATGAGTCCATCT
CTGCGCGTGGGGGGCTCTAACTGCACCTTTCCGGCCCTTTTGCTCGTGGGGTCCCACAAGGCCAGGGCAGTGCCT
GCTCCCAGAATCTGGTGTCTGTACCAGGCCAGGTGGGGAGGCTTTGGCTGGCTGGGCGTGTAGGACGGTGAGAGC
ACTTCTGTCTTAAAGTTTTTCTGATTGAAGCTTTAATGGAGCGTTATTTATTTATCGAGGCCTCTTTGGTGAG
CCTGGGGAATCAGCAAAAGGGGAGGAGGGGTGTGGGGTTGATACCCCAACTCCCTCTACCCTTGAGCAAGGGCAG
GGGTCCCTGAGCTGTTCTTCTGCCCCATACTGAAGGAAGTGGGCTGGGTGATTTATTTATTGGGAAAGTGAGG
GAGGGAGACAGACTGACTGACAGCCATGGGTGGTCAGATGGTGGGGTGGGCCCTCTCCAGGGGGCCAGTTCAGGG
CCCAGCTGCCCCCAGGATGGATATGAGATGGGAGAGGTGAGTGGGGGACCTTCACTGATGTGGGCAGGAGGGT
GGTGAAGGCCTCCCCAGCCAGACCCTGTGGTCCCTCCTGCAGTGTCTGAAGCGCTGCCTCCCCACTGCTCTG
CCCCACCTCCAATCTGCACCTTTGATTGTCTTCTAACAGCTCTGTTCCCTCTGCTTTGGTTTTAATAAATATT
TTGATGACGTT

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FIGURE 417

MALAGAPAGGFCAPALEALLGAGALRLLDSSQIVIIISAAQDASAPPAPTGPAAPAAGPCDPDLLLLFATPQAPRPT
PSAPRPALGRPPVKRRRLDLETDHQYLAESSGPARGRGRHPGKGVKSPGEKSRYETSLNLTTRFLELLSHSADGV
VDLNWAAEVLKVQKRRIYDITNVLEGIQLIAKKSKNHIQWLGSHTTVGVGGRLEGLTQDLRQLQESEQQLDHLMN
ICTTQLRLLSEDTDSQRLAYVTCQDLRSIADPAEQMVMVIKAPPETQLQAVDSSNFQISLKSQGPIDVFLCPE
ETVGGISPGKTPSQEVTSEENRATDSATIVSPPPSSPPSSLTTDPSQSLLSLEQEPLLSRMGSLRAPVDEDRLS
PLVAADSLLEHVREDFSGLLPEEFISLSPHEALDYHFGLEEGERDLFDCDFGDLTPLDF

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FIGURE 418

CCTTGCTATAGAAGACCTGGGACAGAGGACTGCTGTCTGCCCTCTCTGGTCACCCCTGCCTAGCTAGAGGATCTGT
GACCCAGCCATGAGGACCCCTCGCCATCCTTGCTGCCATTCTCCTGGTGGCCCTGCAGGCCCAGGCTGAGCCACT
CCAGGCAAGAGCTGATGAGGTTGCTGCAGCCCCGGAGCAGATTGCAGCGGACATCCCAGAAGTGGTTGTTTCCCT
TGCATGGGACGAAAGCTTGGCTCCAAAGCATCCAGGCTCAAGGAAAAACATGGACTGCTATTGCAGAATACCAGC
GTGCATTGCAGGAGAACGTCGCTATGGAACCTGCATCTACCAGGGAAGACTCTGGGCATTCTGCTGCTTGAGCTTG
CAGAAAAAGAAAAATGAGCTCAAAATTTGCTTTGAGAGCTACAGGGAATTGCTATTACTCCTGTACCTTCTGCTC
AATTCCTTTCTCATCTCAAATAAATGCCTTGTTAC

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FIGURE 419

MRTLAILAAILLVALQAQAEPLQARADEVAAAPEQIAADIPVVVSLAWDESLAPKHGSRKNMDCYCRIPACIA
GERRYGTCTIYQGRLWAFCC

FIGURE 420

AGCGGGTGC GGGGCGGGACCGGCCCGGCCTATATATTGGGTTGGCGCCGGCGCCAGCTGAGCCGAGCGGTAGCTG
GTCTGGCGAGGTTTTATACACCTGAAAGAAGAGAATGTC AAGACGAAGTAGCCGTTTACAAGCTAAGCAGCAGCC
CCAGCCCAGCCAGACGGAATCCCCCAAGAAGCCCAGATAATCCAGGCCAAGAAGAGGAAAACTACCCAGGATGT
CAAAAAAGAAGAGAGGAGGAGGTCACCAAGAAACATCAGTATGAAATTAGGAATTGTTGGCCACCTGTATTATCTGG
GGGGATCAGTCCTTGCATTATCATTGAAACACCTCACAAAGAAATAGGAACAAGTGATTCTCCAGATTTACAAA
TTACAGATTTA AAAATCTTTTTATTAATCCTTCACCTTTGCCTGATTTAAGCTGGGGATGTTCAAAAGAAGTCTG
GCTAAACATGTTAAAAAAGGAGAGCAGATATGTTTCATGACAAACATTTTGAAGTTCTGCATTCTGACTTGGAAACC
ACAGATGAGGTCCATACTTCTAGACTGGCTTTTAGAGGTATGTGAAGTATACACACTTCATAGGGAAACATTTTA
TCTTGCACAAGACTTTTTTGTATAGATTTATGTTGACACAAAAGGATATAAAATAAAAAATATGCTTCAACTCATTGG
AATTACCTCATTATTTCATTGCTTCCAACTTGAGGAAATCTATGCTCCTAAACTCCAAGAGTTTGCTTACGTCAC
TGATGGTGCTTGCAGTGAAGAGGATATCTTAAGGATGGAACCTCATTATATTAAGGCTTTAAATGGGAACCTTG
TCCTGTAACAATCATCTCCTGGCTAAATCTCTTTCTCCAAGTTGATGCTCTTAAAGATGCTCCTAAAGTTCTTCT
ACCTCAGTATTCTCAGGAAACATTCATTCAAATAGCTCAGCTTTTAGATCTGTGTATTCTAGCCATTGATTTCATT
AGAGTTCAGTACAGAATACTGACTGCTGCTGCCTTGTGCCATTTTACCTCCATTGAAGTGGTTAAGAAAGCCTC
AGGTTTGGAGTGGGACAGTATTTTCAAGATGTGTAGATTGGATGGTACCTTTTGTCAATGTAGTAAAAAGTACTAG
TCCAGTGAAGCTGAAGACTTTTAAGAAGATTCTATGGAAGACAGACATAATATCCAGACACATACAACTATTT
GGCTATGCTGGAGGAAGTAAATTACATAAACACCTTCAGAAAAGGGGGACAGTTGTCACCAGTGTGCAATGGAGG
CATTATGACACCACCGAAGAGCACTGAAAAACCACCAGGAAAACACTAAAGAAGATAACTAAGCAAACAAGTTGG
AATTCACCAAGATTGGGTAGAAGTGGTATCACTGAAGTAAAGTTTACAGAAAGTAGTGTGTGATTGATTG
CCCTAGCCAATTCACAAGTTACACTGCCATTCTGATTTTAAACTTACAATTGGCACTAAAGAATACATTTAATT
ATTTCTATGTTAGCTGTTAAAGAAACAGCAGGACTTGTTTACAAAGATGTCTTCATTCCCAAGTTTACTGGATA
GAAGCCAACCACAGTCTATACCATAGCAATGTTTTCTTTAATCCAGTGTTACTGTGTTTATCTTGATAAACTA
GGAATTTTGTCACTGGAGTTTGGACTGGATAAGTGCTACCTTAAAGGGTATACTAAGTGATACAGTACTTTGAA
TCTAGTTGTTAGATTCTCAAAATTCCTACACTCTTGACTAGTGCAATTTGGTTCTTGAAAATTAAATTTAACTT
GTTTACAAAGGTTTAGTTTTGTAATAAGGTGACTAATTTATCTATAGCTGCTATAGCAAGCTATTATAAACTTG
AATTTCTACAAATGGTGAAATTTAATGTTTTTTAACTAGTTTATTTGCCTTGCCATAACACATTTTTTAACTAA
TAAGGCTTAGATGAACATGGTGTTCAACCTGTGCTCTAAACAGTGGGAGTACCAAAGAAATTATAAACAAGATAA
ATGCTGTGGCTCCTTCCTAACTGGGGCTTTCTTGACATGTAGGTTGCTTGGAATAACCTTTTTGTATATCACAA
TTTGGGTGAAAACTTAAGTACCCTTTCAAACATTTTATATGAGGAAGTCACTTTACTACTCTAAGATATCCCTA
AGGAATTTTTTTTTTAAATTTAGTGTGACTAAGGCTTTATTTATGTTTGTGAAACTGTTAAGGTCCTTTCTAAT
TCCTCCATTGTGAGATAAGGACAGTGTCAAAGTGATAAAGCTTAACACTTGACCTAACTTCTATTTTCTTAAGG
AAGAAGAGTATTAAATATATACTGACTCCTAGAAATCTATTTATTA AAAAAAGACATGAAAACCTTGCTGTACATA
GGCTAGCTATTTCTAAATATTTTAAATTAGCTTTTCTAAAAAAAATCCAGCCTCATAAAGTAGATTAGAAAAC
TAGATTGCTAGTTTATTTTGTATCAGATATGTGAATCTCTTCTCCCTTTGAAGAACTATACATTTATTGTTAC
GGTATGAAGTCTTCTGTATAGTTTGTTTTTAACTAATATTTGTTTCAGTATTTTGTCTGAAAAGAAAACACCAC
TAATTGTGTACATATGTATTATATAAATTAACCTTTAATACTGTTTATTTTAGCCCATTTGTTTAAAAAATAA
AAGTTAAAAAATTTAACTGCTTAAAGTAAAAA AAAAAAAAAAAAAAAAAA

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FIGURE 421

MSRRSSRLQAKQQPQPSQTESPQEAQIIQAKKRKTTQDVKKRREEVTKKHQYEIRNCWPPVLSSGGISPCIIETP
HKEIGTSDFSRFTNYRFKNLFINPSPLPDLSWGCSKEVWLNMLKKESRYVHDKHFEVLHSDLEPQMRISILLDWLL
EVCEVYTLHRETFYLAQDFFDRFMLTQKDINKNMLQLIGITSLFIASKLEEIYAPKLQEFAYVTDGACSEEDILR
MELIILKALKWELCPVTIISWLNLFLOVDALKDAPKVLLPQYSQETFIQIAQLLDLCILADSLEFQYRILTAAA
LCHFTSIEVVKKASGLEWDSISECVDWMVPFVN VVKSTSPVKLKTFFKIPMEDRHNIQTHTNYLAMLEEVNYINT
FRKGGQLSPVCNGGIMTPPKSTEKPPGKH

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FIGURE 422

AAACTTCCCGCACGCGTTACAGGAGCCAGGTCGGTATAAGCGCCAGCGGCCTCGCCGCCCGTCAAGCTGTCCACA
TCCCTGGCCTCAGCCCGCCACATCACCTGACCTGCTTACGCCAGATTTTCTTCAATCACATCTGAATAAATCA
CTTGAAGAAAGCTTATAGCTTCATTGCACCATGTGTGGCATTGCGGCGCTGTTTGGCAGTGATGATTGCCTTTCT
GTTCAAGTGTCTGAGTGCTATGAAGATTGCACACAGAGGTCCAGATGCATTCCGTTTTGAGAATGTCAATGGATAC
ACCAACTGCTGCTTTGGATTTCACCGGTTGGCGGTAGTTGACCCGCTGTTTGGAAATGCAGCCAATTCGAGTGAAG
AAATATCCGTATTTGTGGCTCTGTTACAATGGTGAAATCTACAACCATAAGAAGATGCAACAGCATTGTTGAATTT
GAATACCAGACCAAAGTGGATGGTGAGATAATCCTTCATCTTTATGACAAAGGAGGAATTGAGCAAACAATTTGT
ATGTTGGATGGTGTGTTTGCATTGTTTTACTGGATACTGCCAATAAGAAAGTGTTCCCTGGGTAGAGATACATAT
GGAGTCAGACCTTTGTTTAAAGCAATGACAGAAGATGGATTTTTGGCTGTATGTTTCAAGCTAAAGGTCTTGTT
ACATTGAAGCACTCCGCGACTCCCTTTTTAAAGTGGAGCCTTTTCTTCTGGACACTATGAAGTTTTGGATTTA
AAGCCAAATGGCAAAGTTGCATCCGTGGAAATGGTTAAATATCATCACTGTCGGGATGAACCCCTGCACGCCCTC
TATGACAATGTGGAGAACTCTTTCAGGTTTTGAGATAGAACTGTGAAGAACAACCTCAGGATCCTTTTTAAT
AATGCTGTAAAGAAACGTTTGATGACAGACAGAAGGATTGGCTGCCTTTTATCAGGGGGCTTGGACTCCAGCTTG
GTTGCTGCCACTCTGTTGAAGCAGCTGAAAGAAGCCCAAGTACAGTATCCTCTCCAGACATTTGCAATTGGCATG
GAAGACAGCCCCGATTTACTGGCTGCTAGAAAGGTGGCAGATCATATTGGAAGTGAACATTATGAAGTCCTTTTT
AACTCTGAGGAAGGCATTACAGGCTCTGGATGAAGTCATATTTTCTTGGAACTTATGACATTACAACAGTTCGT
GCTTCAGTAGGTATGTATTTAATTTCCAAGTATATTCGGAAGAACACAGATAGCGTGGTGATCTTCTCTGGAGAA
GGATCAGATGAACCTACGCAGGGTTACATATATTTTACAAGGCTCCTTCTCCTGAAAAAGCCGAGGAGGAGAGT
GAGAGGCTTCTGAGGGAACCTCTATTTGTTTGATGTTCTCCGCGCAGATCGAACTACTGCTGCCCATGGTCTTGAA
CTGAGAGTCCCATTCTAGATCATCGATTTTCTTCTTATTACTTGCTCTGCCACCAGAAATGAGAATTCCAAAG
AATGGGATAGAAAAACATCTCCTGAGAGAGACGTTTGAGGATTCCAATCTGATACCCAAAGAGATTCTCTGGCGA
CCAAAAGAAGCCTTCAGTGATGGAATAACTTCAGTTAAGAATTCTTGGTTTAAAGATTTTACAGGAATACGTTGAA
CATCAGGTTGATGATGCAATGATGGCAAATGCAGCCCAGAAATTTCCCTTCAATACTCCTAAAACCAAAGAAGGA
TATTACTACCGTCAAGTCTTTGAACGCCATTACCCAGGCCGGGCTGACTGGCTGAGCCATTACTGGATGCCCAAG
TGGATCAATGCCACTGACCCTTCTGCCCCGACGCTGACCCACTACAAGTCAGCTGTCAAAGCTTAGGTGGTCTTT
ATGCTGTAATGTGAAAGCAAATATTTCTTCGTGTTGGATGGGGACTGTGGGTAGATAGGGGAACAATGAGAGTCA
ACTCAGGCTAACTTGGGTGTGAAAAAATAAAAGTCCTAAATCT

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FIGURE 423

MCGIWALFGSDDCLSVQCLSAMKIAHRGPDAFRFENVNGYTNC CFGHRLAVVDPLFGMQPIRVKKYPYLWLCYN
GEIYNHKKMQQHFEFEYQTKVDGEIILHLYDKGGIEQTICMLDGVFAFVLDTANKKVFLGRDTYGVRPLFKAMT
EDGFLAVCSEAKGLVTLKHSATPFLKVEPFLPGHYEVLDLKPNGKVASVEMVKYHHRDEPLHALYDNVEKLFPG
FEIETVKNLRLILFNNAVKKRLMTDRRIGCLLSGGLDSSLVAATLLKQLKEAQVQYPLQTFAIGMEDSPDLLAAR
KVADHIGSEHYEVLFNSEEGIQALDEVIFSLETYDITTVRASVGMYLISKYIRKNTDSVVIFSGEGSDELTQGYI
YFHKAPSPEKAEESERLLRELYLFDVLRADRTTAAHGLELRVPFLDHRFSSYYLSLPPEMRIPKNGIEKHLRE
TFEDSNLIPKEILWRPKEAFSDGITSVKNSWFKILQEYVEHQVDDAMMANAAQKFPFNTPKTKEGYYYRQVFERH
YPGRADWLSHYWMPKWINATDPSARTLTHYKSAVKA

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FIGURE 424

GGCACGAGGCAGCAAAATGGCGCCAGAAGTGGCGGGCTGAGGACGCCGTACCCCTCGGAAGGCAGCCCTGCG
GTCCCTTTGCCGCCCCTTCCCTCCCGACATGGAGGACGTGGAGGCGCGCTTCGCCACCTCTTGAGCCCATCC
GCGACCTCACCAAGAACTGGGAGGTGGACGTGGCGGCCAGCTGGGCGAGTATCTGGAGGAGCTGGATCAGATCT
GCATTTCTTTGACGAAGGCAAGACCACAATGAACTTCATTGAGGCAGCGTTGTTGATCCAGGGCTCTGCCTGCG
TCTACAGTAAGAAGGTGGAATACCTCTACTCACTCGTCTACCAGGCCCTTGATTTTCATCTCTGGAAAGAGGCGGG
CCAAGCAGCTCTCTTCGGTGCAGGAGGACAGGGCCAATGGGGTTGCCAGCTCCGGGGTCCCCAGGAGGCAGAGA
ATGAGTTCTGTGCTGGATGACTTCCCTGACTCCCGGACTAACGTGGATCTCAAGAATGATCAGACGCCCAGTG
AGGTCCTCATCATCCCCCTCTGCCC**ATGG**CCCTGGTGGCCCCCTGATGAAATGGAGAAGAACAACAATCCCCCTGT
ACAGCCGTCAGGGTGAGGTCTGGCCAGCCGGAAGGATTTAGGATGAACACGTGCGTTCCCCACCCCAGAGGGG
CCTTCATGTTGGAGCCAGAGGGCATGTCCCCATGGAACCAGCGGGCGTTTCCCCCATGCCAGGGACCCAGAAGG
ACACCGGGAGGACTGAGGAGCAGCCAATGGAAGTTTCCGTGTGCAGGAGCCCTGTCCAGCACTCGGCTTCTCCC
AGGAGCCAGGCCCTCTCCAGAAGGCCCGATGCCCTGGGTGGGGGCGAGGACGAGGATGCAGAGGAGGCAGTAG
AGCTTCCTGAGGCCTCGGCCCCCAAGGCCGCTCTGGAGCCCAAGGAGTCCAGGAGCCCGCAGCAGGTGGGACCCA
CATGGAGGCCTGCAGAACCTGAGCTGTGAACTGGCAACCCTGGCTCTGGGGCCGAGTCACCTTGACAAGGAGGA
CAGTGGTATGGCCTTGGCCCCAGACCACTGGTCTGGGGCAGAAGCCACCTGTCTTGAGCCCGTCTGCAACCA
GCCCTTTTGAAGAGCAGCTTCTGTGTTCCCTCCCTCTCTGAGCAGAACTGATGCTCCTCAGAGTAGTGGGCTGGC
GTCCAAGGATTTGAGCCCTGTGAGCTCACGGCAACCTGGGATGGCCGCCGTTGCCAAGGCGCCTCTCTGCAGT
CGGGCTGGTAGGAGGGAGTGTCTGGAGGCCATTGCTGCCTCCCTCAACCCCGGGGTCAACTGTACCCAGCCTAG
AGCCAAGAAATCCTTCCTTTTTATTCAATAAAACAAAATCAACCTGAAAAAAAAAAAAAAAAAAAA

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FIGURE 425

MALVAPDEMEKINNPLYSRQGEVLASRKDFRMNTCVPHPRRAFMLEPEGMSPMEPAGVSPMPGTQNDTGRTEEQP
MEVSVC RSPVPALGFSQEPGSPERPMPPLGGGEDEDAEEAVELPEASAPKAALEPKESRSPQQSAALPRRYMLRE
REGAPEPASCVKETPDLWQSLDPLNSLESKPFKKGRPYSVPPCVEEALGQKRKRKGAAKLQDFHQWYLVAYADHA
DSRRLRRKGPSFADMEVLYWTHVKEQLETLRKLQRREVAEQWLRPAEEDHLEDSPGRPGGSR

FIGURE 426

TTGGAACCAGAGAGAAGCCGGGATGGAACTCCAAACACCACAGAGGACTATGACACGACCACAGAGTTTGACTA
TGGGGATGCAACTCCGTGCCAGAAGGTGAACGAGAGGGCCTTTGGGGCCCAACTGCTGCCCCCTCTGTACTCCTT
GGTATTTGTCAATTGGCCTGGTTGGAAACATCCTGGTGGTCTTGGTCTTGTGCAATACAAGAGGCTAAAAACAT
GACCAGCATCTACCTCCTGAACCTGGCCATTTCTGACCTGCTCTTCTGTTCACGCTTCCCTTCTGGATCGACTA
CAAGTTGAAGGATGACTGGGTTTTTGGTGATGCCATGTGTAAGATCCTCTCTGGGTTTTATTACACAGGCTTGTA
CAGCGAGATCTTTTTTCATCATCCTGCTGACGATTGACAGGTACCTGGCCATCGTCCACGCCGTGTTTGCCCTTGCG
GGCACGGACCGTCACTTTTGGTGTCATCACCAGCATCATATTTGGGGCCCTGGCCATCTTGGCTTCCATGCCAGG
CTTATACTTTTCCAAGACCCAATGGGAATTCACTCACCACACCTGCAGCCTTCACTTTCCTCACGAAAGCCTACG
AGAGTGAAGCTGTTTCAGGCTCTGAACTGAACCTCTTTGGGCTGGTATTGCCTTTGTTGGTTCATGATCATCTG
CTACACAGGGATTATAAAGATTCTGCTAAGACGACCAAATGAGAAGAAATCCAAAGCTGTCCGTTTGATTTTTGT
CATCATGATCATCTTTTTTCTCTTTTGGACCCCTACAATTTGACTATACTTATTTCTGTTTTCCAAGACTTCCT
GTTACCCCATGAGTGTGAGCAGAGCAGACATTTGGACCTGGCTGTGCAAGTGACGGAGGTGATCGCCTACACGCA
CTGCTGTGTCAACCCAGTGATCTACGCCTTCGTTGGTGAGAGGTTCCGGAAGTACCTGCGGCAGTTGTTCCACAG
GCGTGTGGCTGTGCACCTGGTTAAATGGCTCCCCTTCTCTCCGTGGACAGGCTGGACAGGGTCAGCTCCACATC
TCCCTCCACAGGGGAGCATGAACCTCTGCTGGGTTCTGACTCAGACCATAGGAGGCCAACCCAAAATAAGCAGG
CGTGACCTGCCAGGCACACTGAGCCAGCAGCCTGGCTCTCCAGCCAGGTTCTGACTCTTGGCACAGCATGGAGT
CACAGCCACTTGGGATAGAGAGGGAATGTAATGGTGGCCTGGGGCTTCTGAGGCTTCTGGGGCTTCAGTCTTTTC
CATGAACTTCTCCCCCTGGTAGAAAGAAGATGAATGAGCAAAACCAAATATTCCAGAGACTGGGACTAATGTACCA
GAGAAGGGCTTGGACTCAAGCAAGATTTTCAATTTGTGACCATTAGCATTGTGCAACAAAGTCACCCACTTCCCA
CTATTGCTTGACAAACCAATTAACCCAGTAGTGGTGACTGTGGGCTCCATTCAAAGTGAGCTCCTAAGCCATG
GGAGACACTGATGTATGAGGAATTTCTGTTCTTCCATCACCTCCCCCCCCCGCCACCCTCCCACTGCCAAAGAA
CTTGGAAATAGTGATTTCCACAGTGACTCCACTCTGAGTCCAGAGCCAATCAGTAGCCAGCATCTGCCTCCCCCT
TCACTCCCACCGCAGATTTGGGCTCTTGGAAATCCTGGGGAACATAGAACTCATGACGGAAGAGTTGAGACCTAAC
GAGAAATAGAAATGGGGAACACTGCTGGCAGTGGAATAAGAAAGCCCTTAGGAAGAATTTTTATATCCACTAA
AATCAAACAATTCAGGGAGTGGGCTAAGCACGGGCCATATGAATAACATGGTGTGCTTCTTAAAATAGCCATAAA
GGGGAGGGACTCATCTTTCCATTTACCCTTCTTTTCTGACTATTTTTCAGAATCTCTCTTCTTTTCAAGTTGGG
TGATATGTTGGTAGATTCTAATGGCTTTATTGCAGCGGTTAATAACAGGCAAAAGGAAGCAGGGTTGGTTTCCCT
TCTTTTTGTTCTTCATCTAAGCCTTCTGGTTTTATGGGTCAGAGTCCGACTGCCATCTTGGACTTGTGACGAAA
AAAAATAATAATAATAATAAAGGCCTGCTGTGTAAGCTGACAGTATTTGTAGCTGATAGGGGGTTGGGAGGA
AGTGCTACTAGGAGGGTGGGTGAGATCTGTGTTGATGT

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FIGURE 427

METPNTTEDYDTTTEFDYGDATPCQKVNERAFGAQLLPPLYSLVFVIGLVGNILVVLVLVQYKRLKNMTSIYLLN
LAISDLLFLFTLPFWIDYKLKDDWVFGDAMCKILSGFYTTGLYSEIFFIILLTIDRYLAIVHAVFALRARTVTFG
VITSIIIWALAILASMPGLYFSKTQWEFTHHTCSLHFPHESLREWKLQALKNLFGVLPLLVMIICYTGIKI
LLRRPNEKKS KAVRLIFVIMIFFLFWTPYNLTILISVFQDFLFTHCEQSRHLDLAVQVTEVIAYTHCCVNPVI
YAFVGERFRKYLRQLFHRRVAVHLVKWLPFLSVDRLDRVSSTSPSTGEHELSAGF

FIGURE 428

GGCACGAGCCCAGAAACAAAGACTTCACGGACAAAGTCCCTTGGAACCAGAGAGAAGCCGGGATGGAAACTCCAA
ACACCACAGAGGACTATGACACGACCACAGAGTTTGACTATGGGGATGCAACTCCGTGCCAGAAGGTGAACGAGA
GGGCCTTTGGGGCCCAACTGCTGCCCCCTCTGTACTCCTTGGTATTTGTCATTGGCCTGGTTGGAAACATCCTGG
TGGTCTGGTCTTGTGCAATACAAGAGGCTAAAAACATGACCAGCATCTACCTCCTGAACCTGGCCATTTCTG
ACCTGCTCTTCTGTTCACGCTTCCCTTCTGGATCGACTACAAGTTGAAGGATGACTGGGTTTTTGGTGATGCCA
TGTGTAAGATCCTCTCTGGGTTTTATTACACAGGCTTGTACAGCGAGATCTTTTTCATCATCCTGCTGACGATTG
ACAGGTACCTGGCCATCGTCCACGCCGTGTTTGCTTGCGGGCACGGACCGTCACTTTTGGTGTCATCACCAGCA
TCATCATTTGGGGCCCTGGCCATCTTGGCTTCCATGCCAGGCTTATACTTTTCCAAGACCCAATGGGAATTCACCTC
ACCACACCTGCAGCCTTCACTTTCTCAGAAAGCCTACGAGAGTGGAAGCTGTTTCAGGCTCTGAAACTGAACC
TCTTTGGGCTGGTATTGCCTTTGTGGTTCATGATCATCTGCTACACAGGGATTATAAAGATTCTGCTAAGACGAC
CAAATGAGAAGAAATCCAAAGCTGTCCGTTTGATTTTTGTCATCATGATCATCTTTTTTCTCTTTTGGACCCCT
ACAATTTGACTATACTTATTTCTGTTTTCCAAGACTTCTGTTCACCCATGAGTGTGAGCAGAGCAGACATTTGG
ACCTGGCTGTGCAAGTGACGGAGGTGATCGCCTACACGCACTGCTGTGTCAACCCAGTGATCTACGCCTTCGTTG
GTGAGAGGTTCCGGAAGTACCTGCGGCAGTTGTTCCACAGGCGTGTGGCTGTGCACCTGGTTAAATGGCTCCCTT
TCCTCTCCGTGGACAGGCTGGAGAGGGTCAGCTCCACATCTCCCTCCACAGGGGAGCATGAACTCTCTGCTGGGT
TCTGACTCAGACCATAGGAGGCCAACCCAAAATAAGCAGGCGTGACCTGCCAGGCACACTGAGCCAGCAGCCTGG
CTCTCCAGCCAGGTTCTGACTCTTGGCACAGCATGGAGTCACAGCCACTTGGGATAGAGAGGGAATGTAATGGT
GGCCTGGGGCTTCTGAGGCTTCTGGGGCTTCAGTCTTTTCCATGAACTTCTCCCTGGTAGAAAGAAGATGAATG
AGCAAAACCAAATATTCCAGAGACTGGGACTAAGTGTACCAGAGAAGGGCTTGGACTCAAGCAAGATTTTCTGATT
TGTGACCATTAGCATTGTCAACAAAGTCACCCACTTCCCACTATTGCTTGCACAAACCAATTAACCCAGTAGT
GGTGACTGTGGGCTCCATTCAAAGTGAGCTCCTAAGCCATGGGAGACACTGATGTATGAGGAATTTCTGTTCTTC
CATCACCTCCCCCCCCCGCCACCCTCCCACTGCCAAGAACTTGGAAATAGTGATTTCCACAGTGACTCCACTCT
GAGTCCCAGAGCCAATCAGTAGCCAGCATCTGCCTCCCCCTTCACTCCCACCGCAGGATTTGGGCTCTTGGAAATCC
TGGGGAACATAGAACTCATGACGGAAGAGTTGAGACCTAACGAGAAATAGAAATGGGGGAACACTGCTGGCAGT
GGAACATAAGAAAGCCCTTAGGAAGAATTTTTATATCCACTAAAATCAAACAATTCAGGGAGTGGGCTAAGCACGG
GCCATATGAATAACATGGTGTGCTTCTTAAAATAGCCATAAAGGGGAGGGACTCATCATTTCCATTTACCCCTCT
TTTCTGACTATTTTTCAGAACTCTCTCTTTTCAAGTTGGGTGATATGTTGGTAGATTCTAATGGCTTTATTGC
AGCGATTAATAACAGGCAAAAGGAAGCAGGGTTGGTTCCCTTCTTTTGTCTTTCATCTAAGCCTTCTGGTTTT
ATGGGTCAGAGTTCCGACTGCCATCTTGGACTTGTCAGCAAAAAAAAAAAAAAAAAA

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FIGURE 429

METPNTTEDYDTTTEFDYGDATPCQKVNERAFGAQLLPPLYSLVFVIGLVGNILVVLVLVQYKRLKNMTSIYLLN
LAISDLLFLFTLPFWIDYKLKDDWVFGDAMCKILSGFYTGlySEIFFIILLTIDRYLAIVHAVFALRARTVTFG
VITSIIWALAILASMPGLYFSKTQWEFTHTCSLHFPHESLREWKLfQALKLNLFGLVLPLLVMiICYTGIiKI
LLRRPNEKKSKAVRLIFVIMIIFFLFWTPYNLTILISVFQDFLFTHECEQSRHLDLAVQVTEVIAYTHCCVNPVI
YAFVGERFRKYLRQLFHRRVAVHLVKWLPFLSVDRLERVSSTSPSTGEHELSAGF

FIGURE 430

AAGGACACGGGCAGCAGACAGTGGTCAGTCCTTTCTTGGCTCTGCTGACACTCGAGCCACATTCCGTCACCTGC
TCAGAATC**ATG**CAGGTCTCCACTGCTGCCCTTGCTGTCCTCCTCTGCACCATGGCTCTCTGCAACCAGTTCTCTG
CATCACTTGCTGCTGACACGCCGACCGCTGCTGCTTCAGCTACACCTCCCGGCAGATTCCACAGAATTCATAG
CTGACTACTTTGAGACGAGCAGCCAGTGCTCCAAGCCCGGTGTCATCTTCCTAACCAAGCGAAGCCGGCAGGTCT
GTGCTGACCCCACTGAGGAGTGGGTCCAGAAATATGTCAGCGACCTAGAGCTGAGTGCC**TG**AGGGGTCCAGAAGC
TTCGAGGCCCAGCGACCTCGGTGGGCCAGTGGGGAGGAGCAGGAGCCTGAGCCTGGGAAACATGCGTGTGACCT
CCACAGCTACCTCTTCTATGGACTGGTTGTTGCCAAACAGCCACACTGTGGGACTCTTCTTAACTTAAATTTTAA
TTTATTTATACTATTTAGTTTTTGTAAATTTATTTTCGATTTACAGTGTGTTTGIGATTGTTTGCTCTGAGAGTT
CCCCTGTCCCCCTCCCCCTTCCCTCACACCGCGTCTGGTGACAACCGAGTGGCTGTCATCAGCCTGTGTAGGCAGT
CATGGCACCAAAGCCACCAGACTGACAAATGTGTATCGGATGCTTTTGTTTCAGGGCTGTGATCGGCCTGGGGAAA
TAATAAAGCACGCTCTTTTAAAGGT

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FIGURE 431

MQVSTAALAVLLCTMALCNQFSASLAADTPTACCFSYTSRQIPQNFADYFETSSQCSKPGVIFLTRSRQVCAD
PSEEWQKYVSDLELSA

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FIGURE 432

GCTACACTAGAGCAGAGTACGAGTCTGAGGCGGAGGGAGTAATGCCAGGACAAGCGTTTAGAAAGTTTCTTCCAC
TCTTTGACCGAGTATTGGTTGAAAGGAGTGCTGCTGAACTGTAACCAAAGGAGGCATTATGCTTCCAGAAAAAT
CTCAAGGAAAAGTATTGCAAGCAACAGTAGTCGCTGTTGGATCGGGTTCTAAAGGAAAGGGTGGAGAGATTCAAC
CAGTTAGCGTGAAAAGTTGGAGATAAAGTTCTTCTCCCAGAATATGGAGGCACCAAAGTAGTTCTAGATGACAAGG
ATTATTTCTATTTTAGAGATGGTGACATTCTTGGAAAGTACGTAGACTTGAAATAAGTCACTATTGAAATGGCATC
AACATGATGCTGCCCATTCCTGAAGTTCTGAAATCTTTTCGTCATGTAAATAATTTCCATATTTCTCTTTTATA
ATAAACTAATGATACTAATGACATCCAGTGTCTCCAAAATTGTTTCCTTGTACTGATATAAACACTTCCAAATA
AAAATATGTAAAT

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FIGURE 433

MAGQAFRKFLPLFDRVLVERSAAETVTKGGIMLPEKSQGKVLQATVVAVGSGSKGKGGEIQPVSVKVGDKVLLPE
YGGTKVVLDDKDYFLFRDGDILGKYVD

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FIGURE 434

CTCCGCTGCTGTCGCCAGGAGTCACTTCACGAGAAGCCAGGTCACAACCGTCGGCCCTTGTCTGGAAAAGTAAAA
GTGGATCCTGCCACGTTTCGGAGCTCCCTGGCGCCTCGCCCGGCTGGAGCTAGAGAACTCGTCCTGTGGCGGCCCC
CGGCGTGGGGCGGGACAGCGGCCCCCTGGAGGGGGCAGTCCCGGGAGAACCTGCGGCGGCCGGAGCGGTAAAAAT
AAGTGACTAAAGAAGCAGACCTGGGAATCACCTAAC**ATGT**CGAGGAGGAGATTTGATTGCCGAAGTATTTTCAGGC
CTACTAACTACAACCTCCTCAAATTCCAATAAAAAATGGAAAACCTTAATAATTTCTATATACTTACATCTAAAGAG
CTAGGGAGAGGAAAAATTTGCTGTGGTTAGACAATGTATATCAAAATCTACTGGCCAAGAATATGCTGCAAAATTT
CTAAAAAAGAGAAGAAGAGGACAGGATTGTCTGGGCAGAAATTTTACACGAGATTGCTGTGCTTGAATTGGCAAAG
TCTTGTCCCCGTGTTATTAATCTTCATGAGGTCTATGAAAATACAAGTGAAATCATTTTGATATTGGAATATGCT
GCAGGTGGAGAAATTTTCAGCCTGTGTTTACCTGAGTTGGCTGAAATGGTTTCTGAAAATGATGTTATCAGACTC
ATTAACAAATACTTGAAGGAGTTTATTATCTACATCAGAATAACATTGTACACCTTGATTTAAAGCCACAGAAT
ATATTACTGAGCAGCATATACCCTCTCGGGGACATTAAAAATAGTAGATTTTGGAATGTCTCGAAAAATAGGGCAT
GCGTGTGAACTTCGGGAAATCATGGGAACACCAGAATATTTAGCTCCAGAAATCCTGAACTATGATCCCATACC
ACAGCAACAGATATGTGGAATATTGGTATAATAGCATATATGTTGTTAACTCACACATCACCATTTGTGGGAGAA
GATAATCAAGAAACATACCTCAATATTTCTCAAGTTAATGTAGATTATTCGGAAGAAACTTTTTTCATCAGTTTCA
CAGCTGGCCACAGACTTTATTTCAGAGCCTTTTAGTAAAAAATCCAGAGAAAAGACCAACAGCAGAGATATGCCTT
TCTCATTCTTGGCTACAGCAGTGGGACTTTGAAAACCTTGTTTCACCCTGAAGAACTTCCAGTTCCTCTCAAAC
CAGGATCATTCTGTAAGGTCTCTGAAGACAAGACTTCTAAATCCTCCTGTAATGGAACCTGTGGTGATAGAGAA
GACAAAGAGAATATCCCAGAGGATAGCAGCATGGTTTCCAAAAGATTCGTTTCGATGACTCATTACCCAATCCC
CATGAACTTGTTTCAGATTTGCTCTGT**TAG**CACTTTTTTCTTTGACTCATTGGACTGAATTTGAAATTTTATAT
CCACTCCAGTGAGATTATGATTTGTAGCTTCATATATGACATGTTTATATTGTAAATGCACTTTTCCATGGAATA
ATTTAGGGAAGTGTTTTAATGTAAATTACTAGTTGCTAGCATGTTATGATTTTCATATCCTGAGATAGCTCTGCA
GATAAGAAAATATTTAAATATATGACAAAAAGTAAATTTGTACATGTGAAAG

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FIGURE 435

MSRRRFDCRSISGLLTTPQIPKMFNFYILTSKELGRGKFAVVRQCISKSTGQEYAAKFLKKRRRGQDCRA
EILHEIAVLELAKSCPRVINLHEVYENTSEIILILEYAAGGEIFSLCLPELAEMVSENDVIRLIKQILEGVYYLH
QNNIVHLDLKPQNILLSSYPLGDIKIVDFGMSRKIGHACELREIMGTPEYLAPEILNYDPITTATDMWNIGIIA
YMLLTHTSPFVGEDNQETYNISQVNVYSEETFSSVSQLATDFIQSLLVKNPEKRPTAEICLSHSHWLQQWDFEN
LFHPEETSSSSQTQDHSVRSSDKTSKSSCNGTCGDREDKENIPEDSSMVSKRFRFDDSLPNPHELVSDLLC

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FIGURE 436

TAACTGAGCGAGGAGCAATTGATTAATAGCTCGGCGAGGGGACTCACTGACTGTTATAATAACACTACACCAGCA
ACTCCTGGCTTCCCAGCAGCCGGAACACAGACAGGAGAGAGTCAGTGGCAAATAGACATTTTTCTTATTTCTTAA
AAAACAGCAAACTTGTTTGCTACTTTTATTTCTGTTGATTTTTTTTTCTTGGTGTGTGTGGTGGTTGTTTTTAAGT
GTGGAGGGCAAAGGAGATACCATCCCAGGCTCAGTCCAACCCCTCTCCAAAACGGCTTTTCTGACACTCCAGGT
AGCGAGGGAGTTGGGTCTCCAGGTTGTGCGAGGAGCAAATGATGACCGCCAAGGCCGTAGACAAAATCCCAGTAA
CTCTCAGTGGTTTTGTGCACCAGCTGTCTGACAACATCTACCCGGTGGAGGACCTCGCCGCCACGTCGGTGACCA
TCTTTCCCAATGCCGAAGTGGGAGGCCCTTTGACCAGATGAACGGAGTGGCCGGAGATGGCATGATCAACATTG
ACATGACTGGAGAGAAGAGGTCGTTGGATCTCCCATATCCCAGCAGCTTGCTCCCGTCTCTGCACCTAGAAACC
AGACCTTCACTTACATGGGCAAGTCTCCATTGACCCTCAGTACCCTGGTGCCAGCTGCTACCCAGAAGGCATAA
TCAATATTGTGAGTGCAGGCATCTTGCAAGGGGTCACTTCCCCAGCTTCAACCACAGCCTCATCCAGCGTCACCT
CTGCCTCCCCCAACCCACTGGCCACAGGACCCCTGGGTGTGTGCACCATGTCCCAGACCCAGCCTGACCTGGACC
ACCTGTACTCTCCGCCACCGCCTCCTCCTCCTTATTCTGGCTGTGCAGGAGACCTCTACCAGGACCCCTTCTGCGT
TCCTGTGACGAGCCACCACCTCCACCTCTTCCTCTCTGGCCTACCCACCACCTCCTTCCTATCCATCCCCAAGC
CAGCCACGGACCCAGGTCTCTTCCCAATGATCCCAGACTATCCTGGATTCTTTCCATCTCAGTGCCAGAGAGACC
TACATGGTACAGCTGGCCCAGACCGTAAGCCCTTTCCCTGCCCCTGGACACCCCTGCGGGTGCCCCCTCCACTCA
CTCCACTCTCTACAATCCGTAACCTTTACCCTGGGGGGCCCCAGTGCTGGGGTGACCGGACCAGGGGGCCAGTGAGG
GCAGCGAGGGACCCCGGCTGCCTGGTAGCAGCTCAGCAGCAGCAGCAGCCGCCGCCGCCGCCGCTATAACCCAC
ACCACCTGCCACTGCGGCCATTCTGAGGCCTCGCAAGTACCCCAACAGACCCAGCAAGACGCCGGTGACAGAGA
GGCCCTACCCGTGCCCAGCAGAAGGCTGCGACCGGCGGTTCTCCCGCTCTGACGAGCTGACACGGCACATCCGAA
TCCACACTGGGCATAAGCCCTTCCAGTGTGCGATCTGCATGCGCAACTTCAGCCGCAGTGACCACCTCACCACCC
ATATCCGCACCCACACCGGTGAGAAGCCCTTCGCCTGTGACTACTGTGGCCGAAAGTTTGCCCGGAGTGATGAGA
GGAAGCGCCACACCAAGATCCACCTGAGACAGAAAGAGCGGAAAGCAGTGCCCCCTCTGCATCGGTGCCAGCCC
CCTCTACAGCCTCCTGCTCTGGGGGCGTGACGCTGGGGGTACCCTGTGCAGCAGTAACAGCAGCAGTCTTGCGG
GAGGGCCGCTCGCCCCCTTGCTCCTCTCGGACCCGGACACCTTGAGATGAGACTCAGGCTGATACACCAGCTCCCA
AAGGTCCCGGAGGCCCTTTGTCCACTGGAGCTGCACAACAACTACCACCCCTTCTGTCCCTCTCTCCCTTT
GTTGGGCAAAGGGCTTTGGTGGAGCTAGCACTGCCCCCTTTCCACCTAGAAGCAGGTTCTTCCTAAACTTAGCC
CATTCTAGTCTCTCTTAGGTGAGTTGACTATCAACCAAGGCAAAGGGGAGGCTCAGAAGGAGGTGGTGTGGGGA
TCCCCTGGCCAAGAGGGCTGAGGTCTGACCCTGCTTTAAAGGGTTGTTTACTAGGTTTGTACCCCCACTTCCC
CTTATTTTGACCCATCACAGGTTTTTGACCCTGGATGTCAGAGTTGATCTAAGACGTTTTCTACAATAGGTTGGG
AGATGCTGATCCCTTCAAGTGGGGACAGCAAAAAGACAAGCAAAACTGATGTGCACTTTATGGCTTGGGACTGAT
TTGGGGGACATTGTACAGTGAGTGAAGTATAGCCTTTATGCCACACTCTGTGGCCCTAAAATGGTGAATCAGAGC
ATATCTAGTTGTCTCAACCCCTGAAGCAATATGTATTATATACTCAGAGAACAGAAGTGCAATGTGATGGGAGGA
ACGTAGCAATATCTGCTCCTTTTCGAGTTGTTTGAGAAATGTAGGCTATTTTTTCAGTGTATATCCACTCAGATT
TTGTGTATTTTGTATGTACCCACACTGTTCTCTAAATTCTGAATCTTTGGGAAAAAATGTAAAGCATTATGATC
TCAGAGGTTAACTTATTTAAGGGGGATGTACATATTCTCTGAAACTAGGATGCATGCAATTGTGTTGGAAGTGTC
CTTGGTCGCCTTGTGTGATGTAGACAAATGTTACAAGGCTGCATGTAAATGGGTTGCCTTATTATGGAGAAAAAA
ATCACTCCCTGAGTTTAGTATGGCTGTATATTTATGCCTATTAATATTTGGAATTTTTTTTTAGAAAGTATATTTT
TGTATGCTTTGTTTGTGACTTAAAAGTGTTACCTTTGTAGTCAAATTCAGATAAGAATGTACATAATGTTACC
GGAGCTGATTTGTTTGGTCATTAGCTCTTAATAGTTGTGAAAAATAAATCTATTCTAACGCAAAACCACTAACT
GAAGTTCAGATATAATGGATGGTTTGTGACTATAGTGTAATAAATACTTTTCAACAAT

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FIGURE 437

MMTAKAVDKIPVTLSGFVHQLSDNIYPVEDLAATSVTIFPNAELGGPFQDMNGVAGDGMINIDMTGEKRSLDLPY
PSSFAPVSAPRNQFTFTYMGKFSIDPQYPGASCYPEGIINIVSAGILQGVTSASTTASSSVTSASPNPLATGPLG
VCTMSQTQPDLDHLYSPPPPPPPYSGCAGDLYQDPSAFLSAATTSTSSSLAYPPPPSYPSPKPATDPGLFPMIPD
YPGFFPSQCQRDLHGTAGPDRKPFPCPLDTLRVPPPLTPLSTIRNFTLGGPSAGVTGPGASGGSEGPRLPGSSSA
AAAAAAAAAYNPHHLPLRPILRPRKYPNRPSKTPVHERPYPCPAEGCDRRFSRSDDELTRHIRIHTGHKPFQCRIC
MRNFSRSDHLTTHIRHTGEKPFACDYCGRKFARSDERKRHTKIHRLRQKERKSSAPSASVPAPSTASCSGGVQPG
GTLCSSNSSSLGGGPLAPCSSRTRTP

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FIGURE 438A

ATGAACCTCTGAAAAC TGCCGGCATCTGAGGTTTCTCCAAGGCCCTCTGAAGTGCAGCCCATATGAAGGTCTT
GGCGGCAGGAGTTGTGCCCTGCTGTTGGTTCTGCACTGGAAACATGGGGCGGGGAGCCCCCTCCCCATCACCCC
TGTCACGCCACCTGTGCCATACGCCACCCATGTCAACAACCTCATGAACCAGATCAGGAGCCAACCTGGCACA
GCTCAATGGCAGTGCCATGCCCTCTTTATTCTCTATTACACAGCCCAGGGGGAGCCGTTCCCCAACCACTGGA
CAAGCTATGTGGCCCCAACGTGACGGACTTCCCGCCCTTCCACGCCAACGGCACGGAGAAGGCCAAGCTGGTGA
GCTGTACCGCATAGTCGTGTACCTTGGCACCTCCCTGGGCAACATCACCCGGGACCAGAAGATCCTCAACCCAG
TGCCCTCAGCCTCCACAGCAAGCTCAACGCCACCGCCGACATCCTGCGAGGCCTCCTTAGCAACGTGCTGTGCCG
CCTGTGCAGCAAGTACCACGTGGGCCATGTGGACGTGACCTACGGCCCTGACACCTCGGGTAAGGATGTCTTCCA
GAAGAAGAAGCTGGGCTGTCAACTCCTGGGGAAGTATAAGCAGATCATCGCCGTGTTGGCCCAGGCCTTCTAGCA
GGAGGTCTTGAAGTGTGCTGTGAACCGAGGGATCTCAGGAGTTGGGTCCAGATGTGGGGGCCTGTCCAAGGGTGG
CTGGGGCCCAGGGCATCGCTAAACCCAAATGGGGGCTGCTGGCAGACCCCGAGGGTGCTGGCCAGTCCACTCCA
CTCTGGGCTGGGCTGTGATGAAGCTGAGCAGAGTGGAACTTCCATAGGGAGGGAGCTAGAAGAAGGTGCCCTT
CCTCTGGGAGATTGTGGACTGGGGAGCGTGGGCTGGACTTCTGCCTCTACTTGTCCCTTGGCCCCCTTGCTCACT
TTGTGCAGTGAACAAACTACACAAGTCATCTACAAGAGCCCTGACCACAGGGTGAGACAGCAGGGCCCAGGGGAG
TGGACCAGCCCCAGCAAATTATCACCATCTGTGCCTTTGTGCCCCCTTAGGTTGGGACTTAGGTGGGCCAGAGG
GGCTAGGATCCCCAAAGGACTCCTTGTCCCCTAGAAGTTTGATGAGTGGAAAGATAGAGAGGGGCCTCTGGGATGA
AGGCTGTCTTCTTTTGGAGGATGATCAGAGAACTTGGGCATAGGAACAATCTGGCAGAAGTTTCCAGAAGGAGGTC
ACTTGGCATTTCAGGCTCTTGGGGAGGCAGAGAAGCCACCTTCAGGCCTGGGAAGGAAGACACTGGGAGGAGGAGA
GGCCTGGAAAGCTTTGGTAGGTTCTTCGTTCTCTTCCCCGTGATCTTCCCTGCAGCCTGGGATGGCCAGGGTCTG
ATGGCTGGACCTGCAGCAGGGGTTTGTGGAGGTGGGTAGGGCAGGGGCAGGTTGCTAAGTCAGGTGCAGAGGTTT
TGAGGGACCCAGGCTCTTCTCTGGGTAAAGGTCTGTAAGAAGGGGCTGGGGTAGCTCAGAGTAGCAGCTCACAT
CTGAGGCCCTGGGAGGTCTTGTGAGGTACACAGAGGTACTTGAGGGGGACTGGAGGCCGTCTCTGGTCCCCAGG
GCAAGGGAACAGCAGAACTTAGGGTCAGGGTCTCAGGGAACCTGAGCTCCAAGCGTGCTGTGCGTCTGACCTGG
CATGATTTCTATTTATTATGATATCCTATTTATATTAACCTATTGGTGCTTTCAGTGGCCAAGTTAATTCCCCTT
TCCCTGGTCCCTACTCAACAAATATGATGATGGCTCCCGACACAAGCGCCAGGGCCAGGGCTTAGCAGGGCCTG
GTCTGGAAGTCGACAATGTTACAAGTGAATAAGCTTACGGGTGAAGCTCAGAGAAGGGTCGGATCTGAGAGAAT
GGGGAGGCCTGAGTGGGAGTGGGGGGCCTTGCTCCACCCCCATCCCCTACTGTGACTTGCTTTAGCGTGTGAGGG
TCCAGGCTGCAGGGGCTGGGCCAATTTGTGGAGAGGCCGGGTGCCTTTCTGTCTTGCTTCCAGGGGGCTGGTTCA
CACTGTTCTTGGGCGCCCCAGCATTGTGTTGTGAGGCGCACTGTTCTTGGCAGATATTGTCCCCCTGGAGCAGT
GGGCAAGACAGTCCTTGTGGGCCACCTGTCTTGTCTTGTGTTCCCATGCTGCCTCTGAAATAGCGCCCTGGA
ACAACCCTGCCCCCTGCACCCAGCATGCTCCGACACAGCAGGGAAGCTCCTCCTGTGGCCCGGACACCCATAGACG
GTGCGGGGGGCTGGCTGGGCCAGACCCAGGAAGGTGGGGTAGACTGGGGGGATCAGCTGCCCATTTGCTCCCAA
GAGGAGGAGAGGGAGGCTGCAGACGCCTGGGACTCAGACCAGGAAGCTGTGGGCCCTCCTGCTCCACCCCCATCC
CACTCCCACCCATGTCTGGGCTCCCAGGCAGGGAACCCGATCTCTTCCCTTGTGCTGGGGCCAGGCGAGTGGAGA
AACGCCCTCCAGTCTGAGAGCAGGGGAGGGAAGGAGGCAGCAGAGTTGGGGCAGCTGCTCAGAGCAGTGTCTGG
CTTCTTCTCAAACCCTGAGCGGGCTGCCGGCCTCCAAGTTTCTCCGACAAGATGATGGTACTAATTATGGTACTT
TTCACCTCACTTTGCACCTTTCCCTGTGCTCTCTAAGCACTTTACCTGGATGGCGCGTGGGCAGTGTGCAGGCAG
GTCCTGAGGCCTGGGGTTGGGGTGGAGGGTGGGGCCCGAGTTGTCCATCTGTCCATCCCAACAGCAAGACGAGG
ATGTGGCTGTTGAGATGTGGGCCACACTACCCCTTGTCCAGGATGCAGGGACTGCCTTCTCCTTCTGCTTCATC
CGGCTTAGCTTGGGGCTGGCTGCATTCCCCCAGGATGGGCTTCGAGAAAGACAACTTGTCTGGAACACAGAGTT
GCTGATTCCACCCGGGGGGGGCGGCTGACTCGCCCATCACCTCATCTCCCTGTGGACTTGGGAGCTCTGTGCCAG
GCCCACCTTGCGGCCCTGGCTCTGAGTCGCTCTCCACCCAGCCTGGACTTGGCCCCATGGGACCCATCCTCAGT
GCTCCCTCCAGATCCCGTCCGGCAGCTTGGCGTCCACCCTGCACAGCATCACTGAATCACAGAGCCTTTGCGTGA
AACAGCTCTGCCAGGCCGGGAGCTGGGTTTCTCTTCCCTTTTATCTGCTGGTGTGGACCACACCTGGGCCTGGC
CGGAGGAAGAGAGAGTTTACCAAGAGAGATGTCTCCGGGCCCTTATTTATTTAAACATTTTTTTAAAAAGCA
CTGCTAGTTTACTTGTCTCTCCTCCCCATCGTCCCCATCGTCTCCTTGTCCCTGACTTGGGGCACTTCCACCCCT
GACCCAGCCAGTCCAGCTCTGCCTTGCCGGCTCTCCAGAGTAGACATAGTGTGTGGGGTGGAGCTCTGGCACCC
GGGGAGGTAGCATTTCCCTGCAGATGGTACAGATGTTCTGCCTTAGAGTCATCTCTAGTTCCCCACCTCAATCC

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FIGURE 438B

CGGCATCCAGCCTTCAGTCCCGCCCCACGTGCTAGCTCCGTGGGCCCCACCGTGCGGCCTTAGAGGTTTCCCTCCTT
CCTTTCCACTGAAAAGCACATGGCCTTGGGTGACAAATTCCTCTTTGATGAATGTACCCTGTGGGGATGTTTCAT
ACTGACAGATTATTTTTATTATTCAATGTCATATTTAAATATTTATTTTTATACCAAATGAATCACTTTTTT
TTTAAGAAAAAAGAGAAATGAATAAAGAATCTACTCTTCG

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FIGURE 439

MKVLAAGVVPLLLVLHWKHGAGSPLPITPVNATCAIRHPCHNNLMNQIRSQAQLNGSANALFIIYYTAQGEFPF
NNLDKLCGPNVTDFFPFHANGTEKAKLVELYRIVVYLGTSIGNITRDQKILNPSALSLHSKLNATADILRGLLSN
VLCRLCSKYHVGHVDVTYGPDTSGKDVFQKKKLGQCQLLGKYKQIIAVLAQAF

FIGURE 440A

[illegible]

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FIGURE 440B

AACTCCCTCCCCATTTAGATTATTTATTAACATATTTTAAAAATCAGATGAGTTCTATAAATAATTTAGAGAAG
TGAGAGTATTTATTTTTGGCATGTTTGGCCCACCACACAGACTCTGTGTGTGTATGTGTGTGTTTATATGTGTAT
GTGTGTGACAGGAAAATCTGTAGAGAAGAGGCACATCTATGGCTACTGTTCAAATACATAAAGATAAATTTATTT
TCACACAGTCCACAAGGGGTATATCTTGTAAGTTTTTCAGAAAAGCCTTTGGAAATCTGGATCAGGAAATAGATACC
ATGGTTTGTGCAATTATGTAGTAAAAAAGGCAAATCTTTTACCTCTGGCTATTCTTGAGACCCAGGAAGTCAG
GAAAAGCCTTTCAGCTCACCCATGGCTGCTGTGACTCCTACCAGGGCTTTCTTGGCTTTGGCGAAGGTCAGTGTA
CAGACATTCCATGGTACCAGAGTGCTCAGAAAGTCAAGATAGGATATGCCTCACCTCAGCTACTCCTTGTTTTA
AAGTTCAGCTCTTTGAGTAACTTCTTCAATTTCTTTCAGGACACTTGGGTGAATTCAGTAAGTTTCTCTGAAG
CACCTGAAGGGTGCCATCCTTACAGAGCTAAGTGGAGACGTTTCCAGATCAGCCCAAGTTTACTATAGAGACTG
GCCCAGGCACTGAATGTCTAGGACATGCTGTGGATGAAGATAAAGATGGTGGGAATAGGTTTTATCACATCTCTTA
TTTCTCTTTTCCCCTTACTCTCTACCATTTCTTTATGTGGGGAAACATTTTAAGGTAATAAATAGGTTACTTAC
CATCATATGTTTCATATAGATGAACTAATTTTTGGCTTAAGTCAGAACAACTGGCCCCCAATTGAAGTCATATTT
GTGGGGGAAAATGGCATACGCAATATTATATTATTTGGATATTTATGTTTCACACAGGAATTTGGTTTACTGCTT
TGTAATAAAAAGGGAAAACCTCCGGGTATATGT

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FIGURE 441

MGLPEPGPLRLIALLLLLLLLLLLLLLRLQHLAAAAADPLLGGQGPAAKECEKDQFQCRNERCIPSVWRCDDEDDCLDH
 SDEDDCPKKTCA DSDFTCDNGHCIHERWKCDGEEECPDGSDSEATCTKQVCPAEKLSCGPTSHKCVPASWRCDG
 EKDCGGADEAGCATLCAPHEFQCGNRSCLA AVFVCDGDDDCGDGSDERGCADPACGPREFRCGGDGGGACIPER
 WVC DRQFDCEDRSDEAAELCGRFGPGATSAPAACATVSQFACRSGE CVHLGWRC DGD RDCKDKSDEADCP LGTCR
 GDEFQCGDGT CVLAIKHCNQEQDCPDGSD EAGCLQGLNECLHNNGGCSHICTDLKIGFECTCPAGFQLLDQKTCG
 DIDECKDPDACSQICVNYKGYFKCECYPGYEMDLLTKNCKAAGGKSPSLIFTNRYEVRRIDLVRNYSRLIPMLK
 NVVALDVEVATNRIYWCDLSYRKIYSAYMDKASDPKEQEVLIDEQLHSPEGLAVDWVHKHIYWTD SGNKTISVAT
 VDGGRRRTLFSRNLSEPRAI AVDPLRGFMYWSDWGDQAKIEKSGLNGVDRQTLVSDNIEWPNGITLDLLSQRLYW
 VDSKLHQLSSIDFSGGNRKTLISSTDFLSHPFGIAVFEDKVFWTDLENEAIFSANRLNGLEISILAENLNNPHDI
 VIFHELKQPRAPDACELSVQPNGGCEYLCLPAPQISSHSPKYTCACPD TMWLGPDMKRCYRAPQSTSTTTLASTM
 TRTPATTRAPGTTVHRSTYQNHSTETPSLTA AVPSSVSVPRAPSISPSTLSPATSNHSQHYANEDSKMGSTVTA
 AVIGIIVPIVVIALLCMSGYLIWRNWKRKNTKSMNFDNPVYRKTTEEDEDELDHIGRTAQIGHVYPAAISSFDRP
 LWAEPCLGETREPEDPAPALKELFVLPGEPRSQLHQLPKNPLSELPPVVKSKRVALSLEDDGLP

FIGURE 442

TAGGATGGAAAGGCAGATGTAAAGTCCCTC**ATG**GCGAAATATAACACGGGGGGCAACCCGACAGAGGATGTCTCA
GTCAATAGCCGACCCTTCAGAGTCACAGGGCCAACTCATCTTCAGGAATACAAGCAAGAAAGAACTTATTCAAC
AACCAAGGAAATGCCAGCCCTCCTGCAGGACCCAGCAATGTACCTAAGTTTGGGTCCCCAAAGCCACCTGTGGCA
GTCAAACCTTCTTCTGAGGAAAAGCCTGACAAGGAACCCAAGCCCCCGTTTCTAAAGCCCCTGGAGCAGGCCAA
AGATTTCGGAACACCAGCCAGCTTGACCACCAGAGACCCCGAGGCGAAAAGTGGGATTTCTGAAACCTGTAGGCCCC
AAGCCCATCAACTTGCCCAAAGAAGATTCCAAACCTACATTTCCCTGGCCTCCTGGAAACAAGCCATCTCTTCAC
AGTGTAACCAAGACCATGACTTAAAGCCACTAGGCCCGAAATCTGGGCCTACTCCTCCAACCTCAGAAAATGAA
CAGAAGCAAGCGTTTCCCAAATTGACTGGGGTTAAAGGGAAATTTATGTCAGCATCACAAGATCTTGAACCCAAG
CCCCTCTTCCCCAAACCCGCCTTTGGCCAGAAGCCGCCCTAAGTACCGAGAACTCCCATGAAGACGAAAGCCCC
ATGAAGAATGTGTCTTCATCAAAGGGTCCCCAGCTCCCCTGGGAGTCAGGTCCAAAAGCGGCCCTTTAAACCA
GCAAGGGAAGACTCAGAAAATAAGACCATGCAGGGGAGATTTCAAGTTTGCCTTTTCTGGAGTGGTTTTGAAA
CCTGCTGCGAGCAGGGGAGGCCTAGGTCTCTCCAAAATGGTGAAGAAAAAAGGAAGATAGGAAGATAGATGCT
GCTAAGAACACCTTCCAGAGCAAAATAAATCAGGAAGAGTTGGCCTCAGGGACTCCTCCTGCCAGGTTCCCTAAG
GCCCCTTCTAAGCTGACAGTGGGGGGGCCATGGGGCCAAAGTCAGGAAAAGGAAAAGGGAGACAAGAATTCAGCC
ACCCCGAAACAGAAAGCCATTGCCTCCCTTGTTTACCTTGGGTCCACCTCCACCAAACCCAACAGACCACCAAT
GTTGACCTGACGAAATTCCACAAAACCTCTTCTGGAAACAGTACTAGCAAAGGCCAGACGTCTTACTCAACAACT
TCCCTGCCACCACCTCCACCATCCCATCCGGCCAGCCAACCACCATTGCCAGCATCTCACCCATCACAACCACCA
GTCCAAGCCTACCTCCCAGAAACATTAAACCTCCGTTTGACCTAAAAAGCCCTGTCAATGAAGACAATCAAGAT
GGTGTACGCACTCTGATGGTGCTGGAAATCTAGATGAGGAACAAGACAGTGAAGGAGAAACATATGAAGACATA
GAAGCATCAAAGAAAAGAGAGAAGAAAAGGGAAAAGGAAGAAAAGAGAGTTAGAGCTGGAGAAAAGGAACAG
AAAGAGAAAAGAAAAGAAACAAGAAATAAAGAAGAAATTTAAACTAACAGGCCCTATTCAAGTCATCCATCTT
GCAAAGCTTGTTGTGATGTCAAAGGAGGAAAGAATGAAGTGAAGTCAAGCAAGGAGAGCAAATTGAAATCATC
CGCATCACAGACAACCCAGAAGGAAAATGGTTGGGCAGAACAGCAAGGGGTTTCATATGGCTATATTAAACAACCT
GCTGTAGAGATTGACTATGATTCTTTGAAACTGAAAAAAGACTCTCTTGGTGGCCCTTCAAGACCTATTGAAGAT
GACCAAGAAGTATATGATGATGTTGCAGAGCAGGATGATATTAGCAGCCACAGTCAGAGTGGAAGTGGAGGGATA
TTCCCTCCACCACCAGATGATGACATTTATGATGGGATTGAAGAGGAAGATGCTGATGATGGTTTCCCTGCTCCT
CCTAAACAATTGGACATGGGAGATGAAGTTTACGATGATGTGGATACCTCTGATTTCCCTGTTTCATCAGCAGAG
ATGAGTCAAGGAACTAATTTTGAAAAGCTAAGACAGAAGAAAAGGACCTTAAGAAGCTAAAAAAGCAGGAAAAA
GAAGAAAAAGACTTCAGGAAAAAATTTAAATATGATGGTGAATTAGAGTCCTATATTCAACTAAAGTTAACAAC
TCCATAACTTCTAAAAAGTGGGGAACCAGAGATCTACAGGTAAAACCTGGTGAATCTCTAGAAGTTATACAAACC
ACAGATGACACAAAAGTTCTCTGCAGAAATGAAGAAGGGAAATATGGTTATGTCCTTCGGAGTTACCTAGCGGAC
AATGATGGAGAGATCTATGATGATATTGCTGATGGCTGCATCTATGACAATGAC**TAG**CACTCAACTTTGGTCATT

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FIGURE 443

MAKYNTGGNPTEDVSVNSRPFRVTGPNSSSGIQARKNLFNNQGNASPPAGPSNVPKFGSPKPPVAVKPSSEKPD
KEPKPPFLKPTGAGQRFGTPASLTTRDPEAKVGFLKPVGPKPINLPKEDSKPTFPWPPGNKPSLHSVNDHDLKP
LGPKSGTTPPTSENEQKQAFPKLTGVKGKFMASQDLEPKPLFPKPAFGQKPPLSTENSHEDESPMKNVSSSKGS
PAPLGVRSKSGPLKPAEDSENKDHAGEISSLPFPGVVLKPAASRGGLGLSKNGEEKKEDRKIDAAKNTFQSKIN
QEELASGTTPARFPKAPSKLTVGGPWGQSQEKEKGDKNSATPKQKPLPPLFTLGPPPPKPNRPPNVDLTKFHKTS
SGNSTSKGQTSYSTTSLPPPPPSHPASQPPLPASHPSQPPVPSLPPRNIKPPFDLKSPVNEDNQDGVTHSDGAGN
LDEEQDSEGETYEDIEASKEREKKREKEKKRLELEKKEQKEKEKKEQEIKKKFKLTGPIQVIHLAKACCDVKGG
KNELSFKQGEQIEIIRITDNPEGKWLGRGTARGSYGYIKTTAVEIDYDSLKLKDSLGAAPSRPIEDDQEVYDDVAE
QDDISSHSQSGSGGIFPPPPDDDIYDGIEEDADDGFPAPPKQLDMGDEVYDDVDTSDFPVSSAEMSQGTNFGKA
KTEEKDLKKLKKQKEEKDFRKKFKYDGEIRVLYSTKVTTSTSKKWGTRDLQVKPGESLEVIQTDDTKVLCRN
EEGKYGYVLRSYLADNDGEIYDDIADGCIYDND

[illegible]

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FIGURE 444B

[illegible]

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FIGURE 445

GSAPGREKEVGGGAQPAGPEGMFEDKPHAEGA AVVAAAGEALQALCQELNLDEGSAAEALDDFTAIRGNYSLEG
EVTHWLACSLYVACRKSIIPTVGKGIMEGNCVSLTRILRSAKLSLIQFFSKMKKWMDMSNLPQEFRERIERLERN
FEVSTVIFKKYEPIFLDIFQNPYEEPPKLPRSRKQRRIPCSVKDLFNFCWTLFVYTKGNFRMIGDDLVSYHLLL
CCLDLIFANAIMCPNRQDLLNIHHLKVYHLIFILLTLRLKSHPGIIAVLCELHDGLLVEAKGIKEHYFKPYISK
LFDRKILKGECLLDLSSFTDNSKAVNKEYEYVLTVVILMRGSFGSRRRRGNGTPRKFTTRDTPLGKLTAAQANVEY
NLQQHFEEKRSFAPSTPLTGRRYLREKEAVITPVASATQSVSRLQSIVAGLKNAPSDQLINIFESCVRNPVENIM
KILKGIGETFCQHYTQSTDEQPGSHIDFAVNRLKLAELIYYKILETVMVQETRRLHGMDMSVLEQDIFHRSLMA
CCLEIVLFAYSSPRTFPWIIIEVLNLQPFYFYKVIEWVIRSEEGLSRDMVKHLNSIEEQILES LAWSHDSALWEAL
QVSANKVPTCEEVIFPNNFETGNGGNVQGHLPMPMSPLMHPRVKEVRTDSGSLRRDMQPLSPISVHERYSSPTA
GSAKRRLFGEPPKEMLMDKIIITEGTLKLIAPSSSITAENVSI LPGQTLLMATAPVTGTTGHKVTIPLHGVAND
AGEITLIPLSMNTNQESKVKSPVSLTAHSLIGASPKQTNLTKAQEVHSTGINRPKRTGSLALFYRKVYHLASVRL
RDLCLKLDVSNELRRKIWTCFEFTLVHCPDLMKDRHLDQLLLCAFYIMAKVTKEERTFQEIMKSYRNQPQANSHV
YRSVLLKSIPREVVAYNKNINDDFEMIDCDLEDATKTPDCSSGPVKEERGDLIKFYNTIYVGRVKS FALKYDLAN
QDHMMDAPPLSPFPHIKQQPGSPRRISQQHSIYISPHKNGSGLTPRSALLYKFNGSPSKSLKDINNMIROGEQRT
KKRVIAIDSDAESPAKRVCQENDDVLLKRLQDVVSERANH

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FIGURE 446

GGGGCCAGTCGTTTCGCCGAAAGCATTGTCTCCACCTCATCATAACAACAATTAATTTCTCTGGGGCCTGAG
GAGGGCAGAATTTCAACCTTCGGTGTGCTTGGGAGTGGCGATTGTGATTTACACGACAAAATGCCGAGGTGCTCG
GTGGAGTCA**ATGG**CAGTGCCCTTTGTGGAAGACTGGGACTTGGTGCAAACCTGGGAGAAGGTGCCTATGGAGAAG
TTCAACTTGCTGTGAATAGAGTAACTGAAGAAGCAGTCGCAGTGAAGATTGTAGATATGAAGCGTGCCGTAGACT
GTCCAGAAAAATATTAAGAAAGAGATCTGTATCAATAAAATGCTAAATCATGAAAATGTAGTAAAATTCTATGGTC
ACAGGAGAGAAGGCAATATCCAATATTTATTTCTGGAGTACTGTAGTGGAGGAGAGCTTTTTGACAGAATAGAGC
CAGACATAGGCATGCCTGAACCAGATGCTCAGAGATTCTTCCATCAACTCATGGCAGGGGTGGTTTTATCTGCATG
GTATTGGAATAACTCACAGGGATATTAAACCAGAAAAATCTTCTGTTGGATGAAAGGGATAACCTCAAAATCTCAG
ACTTTGGCTTGGCAACAGTATTTCCGTATAATAATCGTGAGCGTTTGTGAACAAGATGTGTGGTACTTTACCAT
ATGTTGCTCCAGAACTTCTGAAGAGAAGAGAATTTTCATGCAGAACCAGTTGATGTTTGGTCTGTGGAATAGTAC
TTACTGCAATGCTCGCTGGAGAATTGCCATGGGACCAACCCAGTGACAGCTGTGAGGAGTATTCTGACTGGAAG
AAAAAAAAACATACCTCAACCCTTGAAAAAAATCGATTCTGCTCCTCTAGCTCTGCTGCATAAAATCTTAGTTG
AGAATCCATCAGCAAGAATTACCATTCAGACATCAAAAAAGATAGATGGTACAACAAACCCCTCAAGAAAGGGG
CAAAAAGGCCCGAGTCACTTCAGGTGGTGTGTGTCAGAGTCTCCAGTGGATTTTCTAAGCACATTCAATCCAATT
TGGACTTCTCTCCAGTAAACAGTGCTTCTAGTGAAGAAAATGTGAAGTACTCCAGTTCTCAGCCAGAACCCCGCA
CAGGTCTTTCTTATGGGATACCAGCCCTCATACATTGATAAATTGGTACAAGGGATCAGCTTTTCCAGCCCA
CATGTCCTGATCATATGCTTTTGAATAGTCAGTTACTTGGCACCCAGGATCCTCACAGAACCCCTGGCAGCGGT
TGGTCAAAAGAATGACACGATTCTTTACCAAATTGGATGCAGACAAATCTTATCAATGCCTGAAAGAGACTTGTG
AGAAGTTGGGCTATCAATGGAAGAAAAGTTGTATGAATCAGGTTACTATATCAACAACATGATAGGAGAAACAATA
AACTCATTTTCAAAGTGAATTTGTTAGAAATGGATGATAAAATATTGGTTGACTTCCGGCTTTCTAAGGGTGATG
GATTGGAGTTCAAGAGACACTTCTGAAGATTAAAGGGAAGCTGATTGATATTGTGAGCAGCCAGAAGGTTTGGC
TTCTGCCACAT**ATGAT**CGGACCATCGGCTCTGGGGAATCCTGGTGAATATAGTGCTGCTATGTTGACATTATTCTT
CCTAGAGAAGATTATCCTGTCCTGCAAACCTGCAAATAGTAGTTCTTGAAGTGTTCACTTCCCTGTTTATCCAAAC
ATCTTCCAATTTATTTTGTGTTTGGGCATACAAATAATACCTATATCTTAATTGTAAGCAAACTTTGGGGAAA
GGATGAATAGAATTCATTTGATTATTTCTTCATGTGTGTTTAGTATCTGAATTTGAAACTCATCTGGTGGAAC
AAGTTTCAGGGGACATGAGTTTTCCAGCTTTTATACACACGTATCTCATTTTTATCAAAACATTTTGTTTAATC
AAAAAGTACATATTTCTTCATGTTGATTTAATTCTAAGATGAACCAATAAAGACATAATTCTTGCAAAAAAAAA
AAAAAAAAAAAAAAAAAAAA

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FIGURE 447

MAVPFVEDWDLVQTLGEGAYGEVQLAVNRVTEEAVAVKIVDMKRAVDCPENIKKEICINKMLNHENVVKFYGHRR
EGNIQYLFLEYCSGGELFDRIEPDIGMPEPDAQRFFHQLMAGVVYLHGIGITHRDIKPENLLDERDNLKISDFG
LATVFRYNNRERLLNKMCGTLPYVAPELLKRREFHAEPVDVWSCGIVLTAMLAGELPWDQPSDSCQËYSDWKEKK
TYLNPWKKIDSAPLALLHKILVENPSARITIPDIKKDRWYNKPLKKGAKRPRVTSGGVSESPSGFSKHIQSNLDF
SPVNSASSEENVKYSSSQPEPRTGLSLWDTSPSYIDKLVQGISFSQPTCPDHMLLNSQLLGTGSSQNPWQRLVK
RMTRFFTKLDADKSYQCLKETCEKLG YQWKSCMNQVTISTTDRRNNKLIFKVNLLEMDDKILVDFRLSKGDGLE
FKRHFLKIKGKLIDIVSSQKVWLPAT

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FIGURE 448

GGGGCCAGTCGTTTCGCCGAAAGCATTGTCTCCACCTCATCATAACAACAATTAATTTCTCTGGGGCCTGAG
GAGGGCAGAATTTCAACCTTCGGTGTGCTTGGGAGTGGCGATTGTGATTTACACGACAAAATGCCGAGGTGCTCG
GTGGAGTCA**ATGG**CAGTGCCCTTTGTGGAAGACTGGGACTTGGTGCAAACCCTGGGAGAAGGTGCCATGGAGAAG
TTCAACTTGCTGTGAATAGAGTAAGTGAAGAAGCAGTCGCAGTGAAGATTGTAGATATGAAGCGTGCCGTAGACT
GTCCAGAAAATATTAAGAAAGAGATCTGTATCAATAAAATGCTAAATCATGAAAATGTAGTAAAATTCTATGGTC
ACAGGAGAGAAGGCAATATCCAATATTTATTTCTGGAGTACTGTAGTGGAGGAGAGCTTTTTGACAGAATAGAGC
CAGACATAGGCATGCCTGAACCAGATGCTCAGAGATTCTTCCATCAACTCATGGCAGGGGTGGTTTATCTGCATG
GTATTGGAATAACTCACAGGGATATTAAACCAGAAAATCTTCTGTTGGATGAAAGGGATAACCTCAAAATCTCAG
ACTTTGGCTTGGCAACAGTATTTCCGTATAATAATCGTGAGCGTTTGTGAACAAGATGTGTGGTACTTTACCAT
ATGTTGCTCCAGAACTTCTGAAGAGAAGAGAATTTATGCAGAACAGTTGATGTTTGGTCCTGTGGAATAGTAC
TTACTGCAATGCTCGCTGGAGAATTGCCATGGGACCAACCCAGTGACAGCTGTCAGGAGTATTCTGACTGGAAAG
AAAAAAAAACATACCTCAACCTTGGAAAAAATCGATTCTGCTCCTCTAGCTCTGCTGCATAAAATCTTAGTTG
AGAATCCATCAGCAAGAATTACCATTCAGACATCAAAAAAGATAGATGGTACAACAAACCCCTCAAGAAAGGGG
CAAAAAGGCCCCCGAGTCACTTCAGGTGGTGTGTGAGAGTCTCCAGTGGATTTTCTAAGCACATTCAATCCAATT
TGGACTTCTCTCCAGTAAACAGTGCTTCTAGTGAAGAAAATGTGAAGTACTCCAGTTCTCAGCCAGAACCCCGCA
CAGGTCTTTTCTTATGGGATACCAGCCCTCATACATTGATAAATTGGTACAAGGGATCAGCTTTTCCAGCCCA
CATGTCCTGATCATATGCTTTTGAATAGTCAGTTACTTGGCACCCAGGATCCTCACAGAACCCCTGGCAGCGGT
TGGTCAAAAGAATGACACGATTCTTTACCAAATTGGATGCAGACAAATCTTATCAATGCCTGAAAGAGACTTGTG
AGAAGTTGGGCTATCAATGGAAGAAAAGTTGTATGAATCAGGTTACTATATCAACAACCTGATAGGAGAAACAATA
AACTCATTTTCAAAGTGAATTTGTTAGAAATGGATGATAAAATATTGGTTGACTTCCGGCTTTCTAAGGGTGATG
GATTGGAGTTCAAGAGACACTTCCTGAAGATTAAAGGGAAGCTGATTGATATTGTGAGCAGCCAGAAGGTTTGGC
TTCCTGCCACAT**TGA**TCGGACCATCGGCTCTGGGGAATCCTGGTGAATATAGTGCTGCTATGTTGACATTATTCTT
CCTAGAGAAGATTATCCTGTCCTGCAAACCTGCAAATAGTAGTTCTGAAAGTGTCACTTCCCTGTTTATCCAAC
ATCTTCCAATTTATTTTGTGTTGTTTCGGCATACAAATAATACCTATATCTTAATTGTAAGCAAACTTTGGGGAAA
GGATGAATAGAATTCATTTGATTATTTCTTCATGTGTGTTTAGTATCTGAATTTGAAACTCATCTGGTGGAAACC
AAGTTTCAGGGGACATGAGTTTCCAGCTTTTATACACACGTATCTCATTTTTATCAAAACATTTTGTTTAATTC
AAAAAGTACATATTTCTTCCATGTTGATTTAATTCTAAGATGAACCAATAAAGACATAATTCTTGCAAAAAAAA
AAAAAAAAAAAAAAAA

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FIGURE 449

MAVPFVEDWDLVQTLGEGAYGEVQLAVNRVTEEAVAVKIVDMKRAVDCPENIKKEICINKMLNHENVVKFYGHRR
EGNIQYLFLEYCSGGELFDRIEPDIGMPEPDAQRFHQLMAGVVYLHGIGITHRDIKPENLLDERDNLKISDFG
LATVFRYNNRERLLNKMCGTLPYVAPELLKRREFHAEPVDVWSCGIVLTAMLAGELPWDQPSDSCQEYSDWKEKK
TYLNPWKKIDSAPLALLHKILVENPSARITIPDIKKDRWYNKPLKKGAKRPRVTSGGVSESPSGFSKHIQSNLDF
SPVNSASSEENVKYSSSQPEPRTGLSLWDTSPSYIDKLQGISFSQPTCPDHMLLSQLLGTGPGSSQNPWQRLVK
RMTRFFTKLDADKSYQCLKETCEKLG YQWKKSCMNQVTISTDRRNNKLIFKVN LLEMDDKILVDFRLSKGDGLE
FKRHFLKIKGKLIDIVSSQKVWLPAT

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FIGURE 450

TTTAAGGCGCCGGGTTTCCGGGGCTCCTGGCCCCGCTTATTCCGCGGGGGTTCGGCGGGGTTCGGCCTGGGCGCCCG
CGCCGCCGCTGCGCTTTGTCCGCTGGGCACACTGCTTCTGGGAGGGGCGGGCAGACATGGTGGCGGCCGCGCCC
CCTCCTCGGCCCTAGCATGCCGCGGCCGCCTCGCGGCTACCCGGCTTGCCGGTCCCGAGCGGCAGCCCCGGGGTG
GCGATGGGGTTCGCGCCGAGGCAGCGGAGGTTCTGCGGGCGACTGGAGGTTGGCAGTGGGCGGGAGAAAGAGGAAG
GCAGGCGCGGCTGGGCCTCGGCCTCTGGCGCCGCGGTACCCCTTGTCTCGGCAGCCTGACGGCCCCGCGGGGCTC
TCCGGAGAGGGGAACGGGCGGCGAGGGTGGCGGGTCTGGGCGCCCTGTGCTGCGGGGCCGAGAGGCGCTCGGGT
CGCGGCGGGACCGGCCGACCAGACAGGGTTAATGGAAGAGCCTGGCCAGTCCCGCGCGGGGGCCCCGCGAGCGAC
AGCCTTGCCCGCGGGGACTGGAGTCTTGAGGGGGAGAAGCCTGCCGTTCTTGAAGGCTCGGGACTTCTGCCCCAAA
GACTTCGCCGCCGAGAACTGCGGGTGCCTGCCTCAGGGAAGAAGTTGAGAATTTTGCCAGGTCATCTCTGCCAG
GGCACAGTTTCATCACTGTGTGTTTAGTGTGTTTCGGTGAAGCTCTCCAAGTGTGTTGAATCAGCGTGCCTAGCCT
CAAGGGTGCATCGTGAAAACCTGAAACCAAAGGAATGATACAGGCCTGCTTTGTGTGTGTCTTCCCACTTTAAGCT
TGTTTTTCAGTACAAATACTCTTGCTTTAAACCTGATTGGACTGTGGCGAGCGGACATCTGTTCAAAGGAGGGGCC
GAGACCACAGTACTTCTGAAGGGGGCTTGATAATGTGGAAACATTTTAAGTTTTCTCTCCGACTGTTTTGCTCT
CTCAATTCAGGCAAGTTACTGAAGTACGTTTTTTATCTAGAAAAAGGTTTGATGTAGTCTGTAAATGGTCCTTGT
AAAGTACATTGCCATCTCAGAATTAAAAGATCCACTCTCATTTATTATGCAGAAGTTAGTGGTCATTCTTTCCTG
TAGATAGTTTATCTCATGTAAAGACCCACCCAGCTTGGTTTTAAATTTTTTCTCACTGACGTATAACCATCAGCT
TTGATACTTCCATTTTCAGGCTCAGACTTTGAATTTAAGGAACTAAAGATGACTTTATTTTCTTTTCTTTGGT
TTTTTTTTCCAAAAACAAAAATAAATCCATTACATGTTAACATAGATGATAAGAGTGACATCTTGCATTTTTGC
AAATCTTTTAAATGCCTGGTTTAATAGAAGATTCTCAGATCTACGTCAGACTGTTGTGGTTAGCACACCATGTAA
CCTCTGGAACACTCCACTGTACACTCATACTTTTTT

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FIGURE 451

MPRPARGYPACRSRAAAPGWRWGRAEAAEVLRTGGWQWAGERGRQARLGLGLWRRGTLCLGSLTAPPGSPERG
GGEGGGSWAPCAAGPRGARVAAGPAGPDRVNGRAWPVPRGAPATAAAGTGVLGRSLPF

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FIGURE 452

ATCCTGTTGTGCCTATCACCTGTTGAAGTTGCCAGTCTTAAGGAAGGGATCAATTTCTTTTCGCAATAAGAGCACT
GGCAAAGACTACGTCTTGTACAAGAATAAGAGCCGACTGAGGGCATGCAAGAATATGTGCAAGCACCAAGGAGGC
CTGTTTCATAAAAGATATCGAGGATTTAGCCGGAAGTTGTTGAAATGGATGAAAAACAACGGACTTTTGCTTTTAGA
ACTGAATCCTCCTAACCCTTGGGACTTACAGCCAGATCTCCTGAAGAGTTGGCTTTTGGAGAAGTACAGATAAC
ATATCTCACTCATGCCTGCATGGACCTCAAGTTAGGAGACAAGAGAATGGTGTITGACCCTTGGTTAATCGGTCC
TGCTTTTGGCCGTGGATGGTGGTTGCTCCATGAGCCTCCATCTGATTGGCTGGAGAGGCTGTGCCAGGCAGACCT
CGTTTACATCAGTCATCTGCACTCAGACCACCTGAGTTACCCACACTGAAAAAGCTTGCTGGGAGAAGACCAGA
TATTTCCATTTATGTTGGAAACACAGAAAGGCCTGTATTTTGGAAATCTGAATCAGAGCGGTGTCCAGTTGACTAA
TATCAATGTCGTGCCATTTGGAATATGGCAGCAGGTGGACAAAAATCTTCGATTCATGATCTTGATGGATGGTGT
TCATCCTGAGATGGACACTTGCATTATTGTGGAGTACAAAGGTCATAAAATACTCAATACAGTAGACTGCACCAG
ACCCAATGGGGGAAGGCTGCCTATGAAGGTTGCTCTAATGATGAGTGATTTTGTGGAGGAGCATCAGGCTTTCC
AATGACTTTTCAGTGGTGGAAAATTTACGGAGGAATGGAAAGCCCAATTCATTAACAGAAAGGAAGAAGCTCCT
GAACTACAAGGCTTGGCTGGTGAAGAACCTGCAACCCCGAATTTATGTCCCTTTGCTGGGTATTTTGTGGAATC
TCACCCATCAGACAAGTACATCAAGGAAACAAACACCAAAAAATGACCCAAATGAACTCAACAATCTTATCAAGAA
AAACTCTGATGTGATAACATGGACCCCTCGACCGGGAGCCACCCTTGATCTGGGAAGAATGCTGAAGGATCCAAC
AGACAGCAAGGGCATCATAGAGCCTCCAGAGGGGACAAAAATTTACAAGGATTCCTGGGATTTTGAACCTTATTT
GGAAATCTTGAATGCTGCTCTAGGAGATGAAATATTTCTTCACTCATCCTGGATAAAAGAATACTTCACTTGGGC
TGGATTTAAAGATTACAACCTTGTGGTCAGGATGATTGAGACAGATGAGGACTTCAATCCTTTTCTGGAGGATA
TGACTATTTGGTTGACTTTTTAGATTTATCCTTCCAAAAGAAAGACCACAACGAGAACATCCCTATGAGGAAAT
CCATAGCCGGGTGGATGTCATCAGACACGTGGTGAAGAATGGTCTACTCTGGGATGAGTTGTATATAGGATTCCA
AACACGGCTCCAGCGGGATCCTGACATATAACCATCACCTGTTTGGAAATCATTTTCAAATAAAACTCCCCCTCAC
ACCACCAACTGGAAGTCATTCTGATGTGCTGTGAGCAGAATGGGCCTGCGATTTTGCAAGAATGCAAAACCAC
ATGAAAATTTCAAGAATTCATGATCTGATGCAAAATAAAAAATTTATCATTACATCTTGAACCCAGGAAGCTTAC
AGCAAAGAGACTATGCTTTATGACGTCAGCAATAGATAATTCCACGTTGCCTTTGTGATTTGTATATATAGCTTA
CATTTGTGGACCACTACATAGCCAGATTCAAAAAATATTTTACTTGTTCATCCACAGTTCTCTACAGAAAGAACC
AATGAACCCAATAGGAACAAATTCTCTGTGGAACAAAGCATAGCTGTAGTAGATACGAATCCAATCACAGAGG
AAACAGGAAGAGAAAAACATCCAAGACTACAGTGAAAACCTGGAAATGGTCTGTTTTCTGTATATTTCGTATGATTA
AGATGCAAAATTTTTCTTAGGAAAATGTGATTGTTAACTAGCATTCTGTTTTACATGTTGACATTTCTAACACAC
ACACCACIGATTGAACTTCAAATTTATTTTCTGATTATATATGCTAGGTCTGATTCTGAAGATACAAGAATTC
AATGGTGGAAATTTGTCTCCTGAAATT

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FIGURE 453

MDENNGLLLLLELNPPNPWDIQPRSPPEELAFGEVQITYLTHACMDLKLGDKRMVFDPWLIGPAFARGWLLHEPPS
DWLERLCQADLVYISHLHSDHLSYPTLKKLAGRRPDIPYVGNTERPVFWNLNQSGVQLTNINVVPFGIWQQVDK
NLRFMILMDGVHPEMDTCIIVEYKGHKILNTVDCTRPNGGRLPMKVALMMSDFAGGASGFPMTFSGGKFTEEWKA
QFIKTERKKLLNYKAWLVKNLQPRIYCPFAGYFVESHPSDKYIKETNTKNDPNELNNLIKNSDVITWTTPRPGAT
LDLGRMLKDPTDSKGIIEPPEGTKIYKDSWDFEYLEILNAALGDEIFLHSSWIKEYFTWAGFKDYNLVVRMIET
DEDFNPFPGGYDYLVDLFLDLSFPKERPQREHPYEEIHSRVDVIRHVVKNGLLWDELYIGFQTRLQRDPDIYHHLF
WNHFQIKLPLTPPNWKSFLMCCEQNGPAILQECKTT

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FIGURE 454

AGCCGGCCGCTAAGAAGCCGAAAG**ATG**TCCAGGTCGGGCGGGCGGCTGAGAAGGCGGACTCCAGACAGCGACCC
CAGATGAAGGTAAATGAATATAAAGAAAATCAAAACATCGCTTATGTGTCTCTGAGACCAGCACAGACTACAGTT
TTAATAAAAACAGCTAAGGTCTATCTTGCCCCCTTTTCACTCAGTAATTACCAGCTAGACCAGCTTATGTGCCCC
AAATCCCTATCAGAAAAGAATTCTAACAATGAAGTGGCGTGTAAGAAGACTAAAAATAAAGAAAACCTGCAGAAGG
ATTATACCTCCAAAGATGAAAAACACATCTTCCAAGGCAGAATCCACGCTGCAAAATTCATCCTCAGCTGTTTCAT
ACTGAAAGTAACAAGCTACAACCCAAGAGAACGGCAGATGCGATGAATCTCAGTGTTGATGTGGAAAGTAGTCAG
GATGGAGACAGTGATGAAGATACCACACCAGCCCTGGATTTTTTCGGGATTGTCACCCTACGAAAGGAAGAGACTG
AAGAACATATCAGAAAACGCAGACTTTTTTGCTTCTCTTCAGTTGTCTGAGTCTGCTGCAAGACTCCGTGAAATG
ATAGAGAAGAGACAGCCTCCTAAATCCAAAAGAAAGAGCCTAAGAGAGAAAATGGGATTGGATGTAGAAGGTCA
ATGCGATTACTAAAAGTTGATCCTTCGGGAGTTTCATTACCAGCAGCTCCAACACCGCCGACATTAGTAGCAGAT
GAAACTCCTTTGTTACCTCCTGGGCCTTTAGAAATGACTTCTGAAAATCAAGAAGACAACAATGAACGATTTAAA
GGATTTCTGCACACATGGGCAGGAATGAGCAAGCCAAGTAGTAAGAACACTGAGAAGGGATTATCTAGCATTAAA
AGCTACAAAGCCAAATTTAAATGGCATGGTCATTAGTGAAGATACCGTTTACAAAGTTACCACAGGCCCAATATTC
TCTATGGCTCTCCATCCATCAGAACTAGAACTTTGGTAGCAGTTGGGGCCAAATTTGGGCAAGTTGGACTTTGT
GATTTGACCCAGCAACCTAAAGAAGATGGAGTTTATGTTTTTACCCCCATAGTCAGCCAGTTAGCTGTCTTTAC
TTCTCACCCGCCAATCCGGCCACATACTGTCACTGAGCTATGATGGCACGTTACGCTGTGGGGATTTTTCCAGG
GCTATTTTTGAAGAGGTGTATAGAAATGAAAGAAGTAGCTTTTCTCCTTCGACTTCTTGGCAGAAGATGCCTCC
ACTTTAATAGTAGGACACTGGGATGGAAATATGTCACTGGTGGATAGACGGACACCTGGAACCTTCTTATGAGAAA
CTTACCAGTTCTTCTATGGGAAAATAAGAAGCTGTTTCATGTCCACCCAGTGCATAGACAGTATTTTATCACTGCC
GGATTGAGGGATACTCATATTTATGATGCAAGGCGATTGAATTCAGGAGAAGTCAGCCTTTGATTTCTTTGACT
GAACATACAAAGAGCATTGCTTCCGCCTATTTTTACCTCTTACTGGTAACAGAGTGGTGACCACATGTGCTGAT
TGTAATCTGAGAATTTTTGACAGCAGCTGTATATCTTCTAAGATTCCGCTCCTCACCACCATCAGGCACAACACT
TTCACTGGGCGATGGCTGACCAGGTTCCAAGCCATGTGGGATCCTAAACAAGAAGACTGTGTCTATAGTTGGCAGC
ATGGCCCATCCACGACGGGTAGAAATCTTCCATGAGACAGGAAAGAGGGTGCATTGTTTTGGTGGAGAATACCTT
GTCTCTGTGTGTTCCATCAATGCCATGCACCCAACCTCGGTATATTTTGGCTGGAGGTAATTCCAGCGGGAAGATA
CATGTTTTTATGAATGAAAAAGCTGCT**AG**TTTTTTGGTTTAGGAACATCAATTTGTTCAAATTGACCACTGTCT
AAGGAGCCTAGTAATCGGCGTGCCTTAGTGTGTTTATGTGGTAATGTGTTACATTTAGCAATTATAACATTGTTT
TATTAATAAGACTATAAGAAGAGTGTACTTTTAGTAAGGGAGAAGTCTTGAGGGTTGCTTCTGCAGGACGGGGA
GGGAATTTGAGGGGAGGCTGAGGTGCCGTCAGGACTTTTTTTTTTTTTTTTTTTTGGAGATGGAGTTTTGCTCTT
GTTGCCCAGGCTGGAGTGCAATAGCGCGATCTTGGCTCACCGCAACCTCCGCCTCCAGGTTCAAGCGATTCTCC
TGCCCTCAGACTCCTAAGTAGCTGGGATTACAGGCACCTGCCACCACGCCTGGCTATTTTTTTTGTATTTTTTAGTAG
AGATGGGGTTTCATCATGTTGGCCAGGCTGGTCTCGAGCTCCTGACCTCAGGTGATCTGCCCGCCTCGGCCTCCA
AAAGTGCTGGAATTACAGGCGTGAGCCACCATGCCTGGCCATCAGAAGTTGTAATCAAGACAGTATGTTGAGAAA
TTCTAACATTATAAATTACAAAGCTTTGACTATTAAAGTTTTTGTGATCT

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FIGURE 455

MSRSGAAAEKADSRQRPQMKVNEYKENQNIAYVSLRPAQTTVLIKTAKVYLAPFSLSNYQLDQLMCPKSLSEKNS
NNEVACKKTKIKKTCRRIIPPKMKNTSSKAESTLQNSSSAVHTESNKLQPKRTADAMNLSVDVESSQDGDSDT
TPALDFSGLSPIYERKRLKNISENADFFASLQLSAARLREMIEKRQPPKSKRKKPKRENGIGCRRSMRLKVD
SGVSLPAAPTPTLVADETPLLPPGPLEMTSENQEDNNERFKGFLHTWAGMSKPSSKNTKGLSSIKSYKANLNG
MVISDITVYKVTGPIFSMALHPSETRTLAVGAKFGQVGLCDLTQQPKEDGVYVFHPSQPVSCLYFSPANPAH
ILSLSYDGTLCGDFSRAIFEVYRNERSSFSDFLAEDASTLIVGHWDGNMSLVDRRTPGTSYEKLTSSSMGK
IRTVHVHPVHRQYFITAGLRDTHIYDARRLNSRRSQPLISLTEHTKSIASAYFSPLTGNRVVTTADCNLRI
SCISSKIPLLTIRHNTFTGRWLTRFQAMWDPKQEDCVIVGSMAPRRVEIFHETGKRVHSFGGEYLVSVCSINA
MHPTRYILAGGNSSGKIHFVFMNEKSC

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FIGURE 456

TGGCGGCCGCCGGCGTCGCCGCC**ATG**GACCTAGGACCCTTGAACATCTGTGAAGAAATGACTATTCTGCATGGAG
GCTTCTTGTCTGGCCGAGCAGCTGTTCCACCCTAAGGCACTGGCAGAATTAACAAAGTCTGACTGGGAACGTGTTG
GACGGCCCATCGTGGAGGCCCTTAAGGGAGATCTCCTCGGCTGCAGCACACTCCCAGCCCTTTGCCTGGAAGAAGA
AAGCCCTGATCATCATCTGGGCCAAGGTTCTGCAGCCGACCCCGTGACCCCGTCCGACACAGAGACACGGTGGC
AGGAAGACCTGTTCTTCTCGGTGGGCAACATGATCCCCACCATCAACCACACCATCCTCTTCGAGCTGCTCAAAT
CCCTGGAAGCTTCTGGACTCTTTATCCAGCTCCTGATGGCCCTGCCCACCACCATCTGCCATGCAGAACTAGAGC
GCTTTCTGGAACATGTGACCGTTGACACTTCTGCCGAAGACGTGGCCTTCTTCCTGGACATCTGGTGGGAGGTGA
TGAAGCACAAGGGTCACCCGACAGGACCCCTGCTCTCCAGTTTAGTGCAATGGCCCATAAGTACCTGCCTGCCT
TAGATGAGTTCCCCCATCCTCCAAAGAGGCTTAGGTGACCCAGACGCGTGCCCCACCATGCCCTGTTGGCCA
TGCTGCTCCGCGGGCTGACACAGATCCAGAGTCGGATCCTGGGCCCCGGGGAGGAAGTGCTGTGCGCTGGCCAACC
TGGCTGACATGCTGACTGTGTTTGCGCTGACAGAGGACGACCCCGAGGAGGTGCTGCAACCGTGTATCTGGACA
AACTGGCCACGGTGATCTCTGTGTGGAACTCGGACACCCAGAATCCCTACCACCAGCAGGCGCTGGCAGAGAAGG
TGAAGGAGGCAGAACGGGATGTCAGCCTGACCTCGCTGGCCAAACTCCCCAGTGAGACCATTTTCGTGGGCTGCG
AGTTCTCTGCACCACCTGCTGCGGGAGTGGGGGGAGGAGTTGCAGGCCGTGCTCCGCAGCAGCCAGGGGACAAGTT
ACGACAGCTACCGGCTGTGCGACAGTCTGACTTCCTTCAGCCAGAACGCGACGCTCTACCTGAACCGCACCAGCC
TGTTCAAGGAGGACAGGCAGGTGGTCTCTGAGCTGGCGGAGTGTGTCAGGGACTTCCTGAGGAAAACGAGCACGG
TGCTGAAGAACAGGGCCTTGAGGATATCACAGCTTCCATTGCCATGGCCGTCATCCAGCAGAAGATGGACCGCC
ATATGGAAGTGTGCTACATTTTTGCCTCTGAGAAGAAGTGGGCCTTCTCGGACGAGTGGGTAGCCTGCCTGGGGA
GTAACAGGGCCCTCTTCCGAGAGCCAGACTTGGTGTGAGGCTGCTGAAACAGTGATAGACGTGAGCACAGCTG
ACAGAGCCATCCCTGAGTCTCAGATCCGGCAGGTGATCCACCTGATCCTGGAATGTTACGCAGACCTCTCCCTGC
CAGGTAAAAATAAAGTCTTGCAGGTATCCTGCGTTTCTGGGGCGAAAGGGCCTCTCTGAAAAGTTGCTGGCTT
ATGTGGAGGGTTTTTCAGGAAGACCTCAATACAACTTTTAACCAGCTCACTCAGAGTGCCTCCGAACAGGGCTTGG
CAAAAGCTGTGGCCTCCGTGGCCCGCCTGGTCATAGTGCACCCGGAAGTCACGGTGAAGAAAATGTGCAGCCTGG
CTGTGGTCAATCTCGGCACCCACAAGTTCTGGCCAGATTCTCACTGCCTTCCCTGCCCTTAGGTTTTGTGGAAG
TGCAGGGTCCCAATTCATCTGCCACTTTCATGGTGTATGCCTCAAAGAAACCGTCTGGATGAAGTTCTCTACAC
CCAAGGAAGAAAAGCAATTTTTAGAGCTCCTGAACTGCCTGATGAGTCCCGTGAAACCCCAAGGGATTCCAGTGG
CTGCTCTTCTTGAGCCAGACGAGGTGCTGAAGGAATTTGTCTGCTTCTTGAGGTTAGATGTTGAAGAGGTAG
ACCTCAGTCTGAGGATCTTCATCCAGACTCTAGAGGCAAACGCGTGCCGAGAGGAATACTGGCTCCAGACCTGCT
CCCCGTTTTCCACTCCTCTTCAGCTTGTGCCAGCTCTTGGACCGCTTTAGCAAATACTGGCCGCTTCCCAAGGAGA
AGCGGTGCCTCTCTTTGGATAGGAAGGATCTAGCGATCCATATCCTGGAGCTCCTGTGTGAGATTGTATCAGCCA
ATGCTGAGACCTTCTCCCCGGATGTCTGGATCAAGTCCCTGTCTGGCTCCACCGCAAGTTAGAACAGCTAGACT
GGACTGTGGGCCTGAGGCTGAAGAGCTTCTTCGAGGGGCACTTCAAGTGTGAAGTGCCAGCCACACTTTTTGAGA
TCTGTAAGCTTTTCAAGAAGACGAGTGACCTCCCAGGCCACCCAGGGTACGGGGCTGGCACGGGGCTCCTGGCCT
GGATGGAGTGCTGCTGCGTCTCCAGCGGCATCTCGGAGAGGATGCTGTCTCTTGGTGGTGGACGTGGGCAATC
CTGAGGAGGTGAGACTGTTTCAAGCAAGGCTTTCTGGTGGCCCTGGTGCAAGTCATGCCTTGGTGCAGCCCTCAGG
AGTGGCAGCGCCTTCACCAGCTGACCAGGAGACTGCTGGAGAAGCAGCTCCTCCATGTCCCTTATAGCCTGGAAT
ATATTCAGTTTGTTCCTTGCTCAACCTGAAGCCCTTTGCCAGGAGTTGCAACTCTCCGTCCTCTTCCTGAGGA
CTTTCCAGTTTCTCTGCAGCCATAGCTGTCGTAATTGGCTTCTCTGGAAGGCTGGAACCACGTGGTCAAACCTCC
TCTGTGGCAGTCTGACCCGCTCCTGGACTCAGTCAGGGCGATACAGGCAGCTGGCCCTTGGGTTCAAGGACCAG
AGCAGGACCTGACCCAGGAAGCCCTGTTTGTGTTTACACCCAGGTGTTCTGCCATGCTCTGCACATCATGGCCATGC
TCCACCCGGAGGTCTGTGAGCCACTCTACGTTTTAGCCTTGGAAACCCCTCACCTGCTATGAGACTTTGAGCAAGA
CCAACCCCTTCTGTGAGCTCCTTGCTCCAGAGGGCACACGAGCAGCGCTTCTTAAAGTCCATTGCTGAGGGCATTG
GCCCTGAAGAACGGCGCCAAACCCGTGTGAGAAGATGAGCAGCTTCT**TGAC**TTGGCGTGGGGAGCTGGGCCCCAA
CATGGCGGGTCTGCAGAAGATCAGCAGCTTCTTACCTGTGCGGGAGCGAAAAAGCTGGGCTTCAACATGGCAGGT
CTGTAGGGGTGAGACCCGAGCAGCCTGGACTTTACAGTTATGTGAAACTGTCCACAAAAAGTCATGGCAATAATG
GTGTAAAGAAAATAGTTTCTTGGGTATTTGTAACGTACAAACTATCATAAAAATCTCCTCTTTTCGCATCTCAA
AAAAAAAAAAAAAAAAAAAAA

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FIGURE 457

MDLGPLNICEEMTILHGGFLLAEQLFHPKALAE LTKSDWERVGRPIVEALREISSAAAHSQPF
AWKKKALIIWA
KVLQPHPVTPSDTETRWQEDLFFSVGNMIPTINHTILFELLKSLEASGLFIQLLMALPTTICHA
ELERFLEHVTV
DTSAEDVAFFLDIWWEVMKHKGHPQDPLLSQFSAMAHKYLPADEFPHPPKRLRSDPDACPTMPL
LAMLLRGLTQ
IQSRILGPGRKCCALANLADMLTVFALTEDDPQEV SATVYLDKLATVISVWNSDTQNPYHQQALAE
KVKEAERDV
SLTSLAKLPSETIFVGCEFLHLLREWGEELQAVLRSSQGTSYDSYRLCDSLTSFSQ NATLYLNRTS
LSKEDRQV
VSELAECVRD FLRKTSTVLKNRALEDITASIAMAVIQQKMDRHMEVCYIFASEKKWAFSDEWVAC
LGSNRAFRE
PDLVLRLL ETVIDVSTADRAIPESQIRQVIHLILECYADLSLPGKNKVLAGILRSWGRKGLSEK
LLAYVEGFQED
LNTTFNQLTQSASEQGLAKAVASVARLVIVHPEVTVKKMCSLAVVNLGTHKFLAQILTAFPALRF
VEVQGPNSSA
TFMV SCLKETVWMKFSTPKEEKQFLELLNCLMSPVKPQGIPVAALLEPDEV LKEFVLPFLRLD
VEEVDLSLRIFI
QTL EANACRE EYWLQTCSPFP LLFSLCQLLDRFSKYWPLPKEKRCLSLDRKDLAIHILELLCE
IVSANAETFSPD
VWIKSLSWLHRKLEQLDWTVGLRLKSFFEGHFKEVPATLFEICKLSEDEWTSQAHPGYGAGTG
LLAWMECCCVS
SGISERMLSLLVVDVGNPEEVRLFSKGFLVALVQVMPWCSPQEWQRLHQLTRRLLEKQLLHV
PYSLEYIQFVPLL
NLKPFAQELQLSVLFLRTFQFLCSHSCRNWLPLEGWNHVVKLLCGSLTRLLDSVRAIQAAGPW
VQGPEQDLTQEA
LFVYTQVFCALHIMAMLHPEVCEPLYVLALETLT CYETLSKTNPSVSSLLQRAHEQRFLKSIAE
GIGPEERRQT
LLQKMSSF

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FIGURE 458

CGACGCGGGAGCCGCACGCGCCGGACGAGGCTCGCTGCGCTCCCTGTTGCCAGCGCGGGCCCGTTGAGGCGGAG
 CCCTCAGTTCCCGGCCAGGACACGGTCTGGGCGCCGAATCTCCGGCCGAAGAGCGGCGGCAGCGCGGGAA
 AAAAAATGAAGAATGAAATTGCTGCCGTTGTCTTTTTCACAAGGCTAGTTCGAAAACATGATAAGTTGAAAAA
 AGAGGCAGTTGAGAGGTTTGCTGAGAAATTGACCCTAATACTTCAAGAAAAATATAAAAATCACTGGTATCCAGA
 AAAACCATCGAAAGGACAGGCCTACAGATGTATTGCTGTCAATAAATTTTCAGAGAGTTGATCCTGATGTCCTGAA
 AGCCTGTGAAAACAGCTGCATCTTGTATAGTGACCTGGGCTTGCCAAAGGAGCTCACTCTCTGGGTGGACCCATG
 TGAGGTGTGCTGCTGATAGATGGGGTTTTACCATTGTTGGCCAGACTGCTCTCAAACCTCTGACCTCGTGATCCG
 CCGCCTTGGCCTCCCAAAGCGCTGGATTACAGGCGTGAGCCACTGCGCCCGCCTCCTCCTTTTTTGATTATGTA
 TGGAGAGAAAAACAATGCATTCATTGTTGCCAGCTTTGAAAATAAAGATGAGAACAAGGATGAGATCTCCAGGAA
 AGTTACCAGGGCCCTTGATAAGGTTACCTCTGATTATCATTACAGGATCCTCTTCTTCAGATGAAGAAACAAGTAA
 GGAAATGGAAGTGAACCCAGTTCGGTGACTGCAGCCGCAAGTCCTGTGTACCAGATTTCAGAACTTATATTTCC
 ACCTCTTCCAATGTGGCACCCTTTGCCCAGAAAAAAGCCAGGAATGTATCGAGGGAATGGCCATCAGAATCACTA
 TCCTCCTCCTGTTCCATTTGGTTATCCAAATCAGGGAAGAAAAAATAAACCATATCGCCCAATTCCAGTGACATG
 GGTACCTCCTCCTGGAATGCATTGTGACCGGAATCACTGGATTAATCCTCACATGTTAGCACCTCACTTAACTTCG
 TTTTGTATTGTTGGTGTGATGTTGAGAAAAAGGTAGAATAAACCTTACTACACATTAAGTTAAAGTTCTT
 ACTAATAGTAGTGAAGTTAGATGGGCCAAACCATCAAACCTATTTTTATAGAAGTTATTGAGAATAATCTTTCTT
 AAAAAATATATGCACTTTAGATATTGATATAGTTTGAGAAATTTTATTAAAGTTAGTCAAGTGCCTAAGTTTTTA
 ATATTGGACTTGAGTATTTATATATTGTGCATCAACTCTGTTGGATACGAGAACCCTGTAGAAGTGGACGATTTG
 TTTTAGCCCTTTGAGAATTTACTTTATGGAGCGTATGTAAGTTATTTATATACAAGGAAATCTATTTTATGTGCG
 TTGTTTAAGAGAATTGTGTGAAATCATGTAGTTGCAAATAAAAAATAGTTTGAGGCAAAAAAAAAAAAAAAAAA
 AAAAAAAAAA

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FIGURE 459

MKNEIAAVVFFFTRLVRKHKDLKKEAVERFAEKLTLILQEKYKNHWYPEKPSKGQAYRCIRVNKFQRVDPDVLKA
CENSCLYSDLGLPKELTLWVDPCEVCCRRDGVSPCWPDSCQTPDLVIRPPWPPKALDYRREPLRPASSFLIMYG
EKNNAFIVASFENKDENKDEISRKVTRALDKVTSYHSGSSSSDEETSKEMEVPSSVTAAASPVYQISELIFPP
LPMWHPLPRKKPGMYRGNGHQNHYPVPVFGYPNQGRKNKPYRPIPVTWVPPPGMHCDRNHWINPHMLAPH

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FIGURE 460

CAGGCCAGGACTCCACAAGGCTGGTCCCCTGCCCTGGAGCAACTTAAACAGGCCCTCTGGCCAGCCTGGAACCTT
GAGATGGCCTCCAGCTCAGGCAGCAGTCCTCGCCCGGCCCTGATGAGAATGAGTTTCCCTTTGGGTGCCCTCCC
ACCGTCTGCCAGGACCCAAAGGAGCCCAGGGCTCTCTGCTGTGCAGGCTGTCTCTTGAGAACCCGAGGAATGGC
GAGGATCAGATCTGCCCCAAATGCAGAGGGGAAGACCTCCAGTCTATAAGCCCAGGAAGCCGTCTTCGAATCAG
GAGAAGGCTCACCCCGAGGTGGCTGAGGCTGGAATTGGGTGCCCTTTGCAGGTGTCGGCTGCTCCTTCAAGGGA
AGCCACAGTCTGTGCAAGAGCATGAGGTACCTCCCAGACCTCCACCTAAACCTGCTGTTGGGGTTCATGAAA
CAGTGGAAGGCCCGGCTGGGCTGTGGCCTGGAGTCTGGGCCCATGGCCCTGGAGCAGAACCTGTGACACCTGCAG
CTGCAGGCAGCCGTGGAAGTGGCGGGGGACCTGGAGGTCGATTGCTACCGGGCACCTGCTCCGAGAGCCAGGAG
GAGCTGGCCCTGCAGCACTTCATGAAGGAGAAGCTTCTGGCTGAGCTGGAGGGGAAGCTGCGTGTGTTTGAGAAC
ATTGTTGCTGTCTCAACAAGGAGGTGGAGGCCTCCCACCTGGCCCTGGCCACCTCTATCCACCAGAGCCAGCTG
GACCGTGAGCGCATCCTGAGCTTGGAGCAGAGGGTGGTGGAGCTTCAGCAGACCTGGCCCAAGAACAGGACC
CTGGGCAAGCTGGAGCAGAGCTTGCGCCTCATGGAGGAGGCCTCCTTCGATGGCACTTTCTGTGGAAGATCACC
AATGTCACCAGGCGGTGCCATGAGTCGGCCTGTGGCAGGACCGTCAGCCTCTTCTCCCCAGCCTTCTACACTGCC
AAGTATGGCTACAAGTTGTGCCTGCGGCTGTACCTGAATGGAGATGGCACTGGAAAGAGAACCCATCTGTGCTC
TTCATCGTGATCATGAGAGGGGAGTATGATGCGCTGCTGCCGTGGCCTTTCGGAACAAGGTCACCTTCATGCTG
CTGGACCAGAACAACCGTGAGCAGGCCATTGACGCCTTCCGGCCTGACCTAAGCTCAGCGTCCTTCCAGAGGCCC
CAGAGTGAACAACAGTGGCCAGTGGATGCCCCTCTTCTTCCCCCTCAGCAAACCTGCAGTCACCCAAGCACGCC
TACGTGAAGGACGACACAATGTTCTCAAGTGCATTGTGGAGACCAGCACTTAGGGTGGGCGGGGCTCCTGAGGG
AGCTCCAACCTCAGAAGGGAGCTAGCCAGAGGACTGTGATGCCCTGCCCTTGGCACCCAAGACCTCAGGGCACAAA
GATGGGTGAAGGCTGGCATGATCCAAGCAAGACTGAGGGGTCGACTTCGGGCTGGCCATCTGTTAGGATGGCAG
GACGTGGGCTGGGCCCACAAAGGCAAGGGTCCAGAAGGAGACAGGCAGAGCTGCTCCCCTCTGCACGGACCATG
CGACACTGGGAGGCCAGTGAGCCACTCCGGCCCCGAATGTTGAGGTGGACTCTACCAAATGAGAAGAAAATGGA
ACCAGGCTTGGAACCGTAGGACCCAAGCAGAGAAGCTCTCGGGCTAGGAAGATCTCTGCAGGGCCGCCAGGGAGA
CCTGGACACAGGCCTGCTCTCTTTTTCTCCAGGGTCAGAAACAGGACCGGGTGAAGGGATGGGGTGCCAGTTTG
AATGCAGTCTGTCCAGGCTCGTCATTGGAGGTGAACAAGCAAACCCAGAGGGCTCCACTAGGACTTCAAATTGGG
GGTTGGATTTGAAGACTTTTAAGTTTCCTTCCAGCCCAGAAAGTCTCTCATTCTAGGCCTCCTGGCCCAGGTGAG
TCCTAGAGCTACAGGGGTTCTGGAACATTACAGGAGCTTCCTGTCTCTCCAGCTCCTCACTCACCTTCAGTAACC
CCCCTGGACTGACCTGGTCCACAGGGCACCTGCCACCTGGGCCTGGCAGCTCAGCTTCCCCAACACGCAGGAG
CACACCCAGCCCCACATCCTGTGCCTCCATCAGCTAAACACCACGTCACCTCATGCAGGTGAAACCCAGTCACT
GTGAGCTCCCAGGTGCAGCCAGAGGCACCTCAAGAAGAAGAGGGGCATAAACTTTCTCTTCTGCCTAGAGGCC
CCACCTTTGGTGCTTTCCAGAATCCCGTAACACCTGATTAACCTGAGGCATCCACTTCTTTTACGAGACTGATCAG
GACCTCCAAGCCACTGAGCAATGTATAACCCCAAAGAAATAATTTTTAGAATCTCTTTCGAAGTTTTCTTAAAAA
AAAAAAAAAAAA

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FIGURE 461

MASSSGSSPRPAPDENEFPGCPPTVCQDPKEPRALCCAGCLSENPRNGEDQICPKCRGEDLQSI SPGSRRLRTQE
KAHPEVAEAGIGCPFAGVGCSFKGSPQSVQEHEVTSQTSHLNLLLGFMKQWKARLGCGLESGPMALEQNLSDLQL
QAAVEVAGDLEVDCYRAPCSESQEELALQHFMKEKLLAELEGKLRVFENIVAVLNKEVEASHLALATSIHQSQLD
RERILSLEQRVVELQQT LAQKDQALGKLEQSLRLMEEASFDGTFLWKITNVTRRCHESACGRTVSLFSPA FYTAK
YGYKLCLRLYLNGDGTGKRTHLSLFIVIMRGEYDALLPWPFRNKVTFMLLDQNNREHAIDAFRPDLSSASFQRPQ
SETNVASGCPLFFPLSKLQSPKHAYVKDDTMFLKCIVETST

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FIGURE 462

AGACGCAAGACGCCGGGCTACAGCGGGAGCGTGAGGAAAGCCGTGCGTTGCGTTCCAAGGCATCTGTGAGCCCG
CGGAGTATACACCATGAGCAAAGCTCACCCCTCCCGAGTTGAAAAAATTTATGGACAAGAAGTTATCATTGAAATT
AAATGGTGGCAGACATGTCCAAGGAATATTGCGGGGATTTGATCCCTTTATGAACCTTGTGATAGATGAATGTGT
GGAGATGGCGACTAGTGGACAACAGAACAATATTGGAATGGTGGTAATACGAGGAAATAGTATCATCATGTTAGA
AGCCTTGGAACGAGTATTAAAATAATGGCTGTTCAGCAGAGAAACCCATGTCTCTCTCCATAGGGCCTGTTTTACT
ATGATGTAAAAATTAGGTCATGTACATTTTCATATTAGACTTTTTGTAAATAAACTTTTGTAAATAGTCAAAAAT
GCTTTCTCAGATGTTCTGAATATAGAATATCAGCTCTCATTCCAGTTTTTTCTAACATGAATTTTCCTGGTTGAC
ATTGATTTCAAAGGGTTTTATGCATTAAAGTGAAAGAATCTTATTAAATGCGAAAAAAAAAAAAAAAAAAAAAA
AAAAAA

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FIGURE 463

MSKAHPPELKKFMDKKLSLKLNGGRHVQGILRGFDPFMNLVIDECVEMATSGQQNNIGMVVIRGNSIIMLEALER
V

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FIGURE 464

CGGGAGGCGGCAGCGGCTGCAGCGTTGGTAGCATCAGCATCAGCATCAGCGGCAGCGGCAGCGGCCTCGGGCGGG
GCCGGCCGGACGGACAGGCGGACAGAAGGCGCCAGGGGCGCGCTCCCGCCGGGCGGCC**ATG**GAGGGCGCCTC
CTTCGGCGCGGGCCGCGCAGGGGCGCCCTGGACCCCGTGAGCTTTGCGCGGCGGCCCCAGACCCTGCTCCGGGT
CGCGTCCTGGGTGTTCTCCATCGCCGCTCTTCGGGCCCA**TCGT**CAACGAGGGCTACGTGAACACCGACAGCGGCC
CGAGCTGCGCTGCGTGTTCAACGGGAACGCGGGCGCCTGCCGCTTCGGCGTCGCGCTGGGCCTCGGAGCCTTCCT
CGCCTGCGCCGCTTCCTGCTGCTCGATGTGCGCTTCAGCAAATCAGCAGCGTCCGCGACCGCCGGCGCGCGGT
GTTGCTGGACCTGGGCTTCTCAGGACTCTGGTCCTTCCTGTGGTTCGTGGGCTTCTGCTTCCTCACCAATCAGTG
GCAGCGCACGGCGCCAGGGCCGGCCACGACGAGGCGGGGACGCGGCGCGGGCCGCCATCGCCTTCAGCTTCTT
CTCCATCCTCAGCTGGGTGGCGCTACCCGTGAAGGCCCTGCAGCGGTTCCGCCTGGGCACCGACATGTCACTCTT
CGCCACCGAACAGCTGAGCACCGGGGCGAGCCAGGCCTACCCCGGCTATCCGGTGGGCAGCGGCGTGGAGGGCAC
CGAGACCTACCAGAGCCCGCCCTTACCGAGACCCTGGACACCAGCCCCAAAGGGTACCAGGTGCCCGCCTAC**TA**
GCGGCTGGCAGGCACAGACCAGGGCTCCAAGGCCACCCACCAACGCAGGCCCCAGGGTCTCCGGGACCTCCCTT
GGGTCTTCCAGCTCAGTGCCGCGGACAGAGTAGGTGGCCGCTTTGCGCCATCCGGGGCCAAGAGGGGGTGGACC
CGCGTGTCTGGGCTGCCCCTGCCAAGTTCCCCCAGTCCCTCAGCACCTGGCCCCAGGACTGAGGTCTTGAGAAGG
GGATAGCACTGCCCAGGACGTGTGTCCCTAGCCTGGAATGGACTGGCCTGGGGAAGGCTTTCCCTCTTGGGCCA
CACCTGCTCACTCTGGGGTTGGGGGTCCAGCTGCCCTCTACGATCAGGTGCAGGGGCTGCCCAGGACAAAGCGGG
GGCAGGGGAAAGACACCACCTCGCCCCAAGACTGGGGATCCTGGCCACTGTTCCCATCCCATGTCCCTGTGGGT
AGTGACTGTCTCGTTTCTGTCAIGGTGGTGCCTCCCGTCCGGAGCCACTCTCCACTTTCTCTCACAGGCTGCTAG
AACAGCCCAGCCCTGTCAGTGTTGTGATCATGGTCCAGTCTTCGGGTTTACCTCCTAGTACTCCACAAGCTGCT
CCTCTCTCTGTGGCCCCGGCCCTGCCCAGGTGTGGGTGGTTCGGCCAGGAAGGCACAAGGTAGCTGTGGGCCA
AGACACCAGCCCTGTCCTAGCCCTTCAGTAAGACCTTGCCAGGAGAGGAGAAGGATGCCTGGGTGCCAGGCAAGA
CAAGCCCCCTCAGCAGGAGAGAGGGCCAGAGGCTCCAGCTGGCCACCGTGCCCCACAAGATGGCCCCCTGTGTGGTT
CCCTTTACCTTGGCTTCCTGGCCAGTCCCTGCCTCTCCACCTGCACCCTGCTTCCTGGCCAGTCCCAGGTTGG
AGTCCCTCTGCATAGCTGACTACTCATGCATTGCTCAAAGCTGGCTTTTACATTAAGTCAACACCAAACGTGGT
TGCCACATTTTCATCAGACAGACACCTCCCTCTGGAGATGCAGTTGAGTGACAACCTTGTTACATTGTAGCCTAGA
CCAATTCTGTGTGGATATTTAAGTGAACATGTTTACAATTTTGTATATATCACTCTCTCCCTCTCCTGAAAGAC
CAGAGATTGTGTATTTTTCAGTGTCCCATGTTCCGACTGCACCTTCTTTACAATAAAGACTGTA**ACT**GAGCTGACT
GTGAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 465

MEGASFGAGRAGAALDPVSFARRPQTLLRVASWVFSIAVFGPIVNEGYVNTDSGPELRCVFNGNAGACRFGVALG
LGAFLACAAFLLLDVRFQQISSVRDRRAVLLDLGFSGLWSFLWFVGFCLTNQWQRTAPGPATTQAGDAARAAI
AFSFFSILSWVALTVKALQRFRLGTDMSLFATEQLSTGASQAYPGYPVGSGVEGTETYQSPPFTETLDTSPKGYQ
VPAY

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FIGURE 466

ATACGACTACACCTGCTCCGGAGCCCGCGGCGGTACCTGCAGCGGAGGAGCTCTGTCTTCCCCTTCATCTCACGC
 GAGCCCGGCGTCCCGCCGCGTGCGCCCGGCGCAGCCCGCCAGTCCGCCCGGAGCCCGCCAGTCGCCGCGCTGC
 ACGCCCGGGGTGAACCCCTCTGCCCTCGCTGGGACAGAGGGCCCCGCGAGCCGTC**ATG**CTTCCGCCATCTACACAG
 TCCTGGCGGGACTGCTGTTCTGCGCTCCTGGTGAACCTCTGCTGCCCATACTTCTTCCAGGACATAGGCTACT
 TCTTGAAGGTGGCCGCGTGGGCCGAGGGTGCAGCTACGGGCAGCGCGCGCGCCGCGCACCATCCTGCGGG
 CGTTCCTGGAGAAAGCGCGCCAGACGCCACACAAGCCTTTTCTGCTCTTCCGCGACGAGACTCTCACCTACGCGC
 AGGTGGACCGGCGCAGCAATCAAGTGGCCCGGCGCTGCACGACCACCTCGGCCTGCGCCAGGGAGACTGCGTGG
 CGCTCCTTATGGGTAAAGAGCCGCGCTACGTGTGGCTGTGGCTGGGGCTGGTGAAGCTGGGCTGTGCCATGGCGT
 GCCTCAATTACAACATCCGCGCAAGTCCCTGCTGCACTGCTTCCAGTGTGCGGGGCGAAGGTGCTGCTGGTGT
 CGCCAGAACTACAAGCAGCTGTGAAGAGATACTGCCAAGCCTTAAAAAGATGATGTGTCCATCTATTATGTGA
 GCAGAACTTCTAACACAGATGGGATTGACTCTTTCCTGGACAAAGTGGATGAAGTATCAACTGAACCTATCCAG
 AGTCATGGAGGTCTGAAGTCACTTTTCCACTCCTGCCTTATACATTTATACTTCTGGAACACAGGTCTTCCAA
 AAGCAGCCATGATCACTCATCAGCGCATATGGTATGGAAGTGGCCTCACTTTTGTAAAGCGGATTGAAGGCAGATG
 ATGTCATCTATATCACTCTGCCCTTTTACCACAGTGTGCACTACTGATTGGCATTACAGGATGTATTGTGGCTG
 GTGCTACTCTTGCCTTGCGGACTAAATTTTACGCCAGCCAGTTTGGGATGACTGCAGAAAATACAACGTCACTG
 TCATTCACTATATCGGTGAAGTGCCTTCGGTATTTATGCAACTCACCAAGAAACCAATGACCGTGATCATAAAG
 TGAGACTGGCACTGGGAAATGGCTTACGAGGAGATGTGTGGAGACAATTTGTCAAGAGATTGGGGACATATGCA
 TCTATGAGTTCTATGCTGCCACTGAAGGCAATATTGGATTTATGAATTATGCGAGAAAAGTTGGTGTCTTGGAA
 GAGTAAACTACCTACAGAAAAAATCATAACTTATGACCTGATTAAATATGATGTGGAGAAAGATGAACCTGTCC
 GTGATGAAAATGGATATTGCGTCAGAGTTCCCAAAGGTGAAGTTGGACTTCTGGTTTGCAAAATCACACAACCTTA
 CACCATTTAATGGCTATGCTGGAGCAAAGGCTCAGACAGAGAAGAAAAAACTGAGAGATGTCTTTAAGAAAGGAG
 ACCTCTATTTCAACAGTGGAGATCTCTTAATGGTTGACCATGAAAATTTATCTATTTCCACGACAGAGTTGGAG
 ATACATTCCGGTGGAAAGGGGAAAATGTGGCCACCACTGAAGTTGCTGATACAGTTGGACTGGTTGATTTGTCC
 AAGAAGTAAATGTTTATGGAGTGCATGTGCCAGATCATGAGGGTCGCATTGGCATGGCCTCCATCAAAATGAAAG
 AAAACCATGAATTTGATGGAAAGAACTCTTTCAGCACATTGCTGATTACCTACCTAGTTATGCAAGGCCCGGT
 TTCTAAGAATACAGGACACCATTGAGATCACTGGAACCTTTAAACACCGCAAAATGACCCTGGTGGAGGAGGGCT
 TTAACCTGCTGTCATCAAAGATGCCTTGATTTCTTGGATGACACAGCAAAATGTATGTGCCTATGACTGAGG
 ACATCTATAATGCCATAAGTGCTAAAACCTGAAACT**TGAA**TATTTCCAGGAGGATAACTCAACATTTCCAGAA
 AGAAACTGAATGGACAGCCACTTGATATAATCCAACCTTTAATTTGATTGAAGATTGTGAGGAAATTTGTAGGAA
 ATTTGCATACCCGTAAAGGGAGACTTTTTTAAATAACAGTTGAGTCTTTGCAAGTAAAAAGATTTAGAGATTATT
 ATTTTTCAGTGTGCACCTACTGTTTGTATTTGCAAACTGAGCTTGTTGGAGGGAAGGCATTATTTTTTAAATAC
 TTAGTAAATTAAATGAAC

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FIGURE 467

MLSAIYTVLAGLLFLPLLVLNCCPYFFQDIGYFLKVAAGRRVRSYGQRRPARTILRAFLEKARQTPHKPFLFR
DETLTYAQVDRRSNQVARALHDHLGLRQGDCAALLMGNEPAYVWLWLGLVKLGCAMACLNYNIRAKSLLHCFQCC
GAKVLLVSPQLAAVEEILPSLKKDDVSIYYVSRTSNTDGIDSFLDKVDEVSTEPIPESWRSEVTFSTPALYIYT
SGTTGLPKAAMITHQRIWYGTGLTFVSGLKADDVIYITLPHYHSAALLIGIHGCIVAGATLALRTKFSASQFWDD
CRKYNVTVIQYIGELLRYLCNSPQKPNDRDHKVRLALGNLGRGDVWRQFVKRFGDICIYEFYAATEGNIGFMNYA
RKVGAVGRVNYLQKKIITYDLIKYDVEKDEPVRDENGVCVRVPKGEVGLLVCKITQLTPFNGYAGAKAQTEKKL
RDVFKKGDLYFNSGDLLMVDHENFIYFHDRVGDTRWKGENVATTEVADTVGLVDFVQEVNVYGVHVPDHEGRIG
MASIKMKENHEFDGKKLFQHIADYLP SYARPRFLRIQDTIEITGTFKHKMTLVEEGFNPAVIKDALYFLDDTAK
MYVPMTEDIYNAISAKTLKL

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FIGURE 468

ATACGACTACACCTGCTCCGGAGCCCGCGGGGTACCTGCAGCGGAGGAGCTCTGTCTTCCCCTTCATCTCACGC
GAGCCCGGCGTCCCGCCGCGTGCGCCCGGGCGCAGCCCGCCAGTCCGCCCCGAGCCCGCCAGTCGCCGCGCTGC
ACGCCCCGGGGTGAACCCTCTGCCCTCGCTGGGACAGAGGGCCCCGCAGCCGT**CATG**CTTTCGCCATCTACACAG
TCCTGGCGGGACTGCTGTTCTGCGCTCCTGGTGAACCTCTGCTGCCATACTTCTTCCAGGACATAGGCTACT
TCTTGAAGGTGGCCGCGTGGGCCGAGGGTGCAGCTACGGGCAGCGGCGGCGGCGCGCACCATCCTGCGGG
CGTTCCTGGAGAAAGCGCGCCAGACGCCACACAAGCCTTTTCTGCTCTTCCGCGACGAGACTCTCACCTACGCGC
AGGTGGACCGGCGCAGCAATCAAGTGGCCCGGGCGCTGCAGCACCACCTCGGCCTGCGCCAGGGAGACTGCGTGG
CGCTCCTTATGGGTAACGAGCCGGCCTACGTGTGGCTGTGGCTGGGCTGGTGAAGCTGGGCTGTGCCATGGCGT
GCCTCAATTACAACATCCGCGCGAAGTCCCTGCTGCACTGCTTCCAGTGTGCGGGGCGAAGGTGCTGCTGGTGT
CGCCAGAACTACAAGCAGCTGTGGAAGAGATACTGCCAAGCCTTAAAAAGATGATGTGTCCATCTATTATGTGA
GCAGAACTTCTAACACAGATGGGATTGACTCTTTCCTGGACAAAGTGGATGAAGTATCAACTGAACCTATCCAG
AGTCATGGAGGTCTGAAGTCACTTTTTCCACTCCTGCCTTATACATTTATACTTCTGGAACCACAGGTCTTCCAA
AAGCAGCCATGATCACTCATCAGCGCATATGGTATGGAAGTGGCCTCACTTTTGTAAGCGGATTGAAGGCAGATG
ATGTCATCTATATCACTCTGCCCTTTTACCACAGTGTGCACTACTGATTGGCATTACGGATGTATTGTGGCTG
GTGCTACTCTTGCCCTTGCGGACTAAATTTTACGCCAGCCAGTTTGGGATGACTGCAGAAAATACAACGTCAGTG
TCATTCACTATATCGGTGAAGTGTTCGGTATTTATGCAACTCACCACAGAAACCAAATGACCGTGATCATAAAG
TGAGACTGGCACTGGGAAATGGCTTACGAGGAGATGTGTGGAGACAATTTGTCAAGAGATTTGGGGACATATGCA
TCTATGAGTTCTATGCTGCCACTGAAGGCAATATTGGATTTATGAATTATGCGAGAAAAGTTGGTGTGTTGGAA
GAGTAAACTACCTACAGAAAAAATCATAACTTATGACCTGATTAAATATGATGTGGAGAAAGATGAACCTGTCC
GTGATGAAAATGGATATTGCGTCAGAGTTCCCAAAGGTGAAGTTGGACTTCTGGTTTGCAAAATCACACAACCTTA
CACCATTTAATGGCTATGCTGGAGCAAAGGCTCAGACAGAGAAGAAAAAACTGAGAGATGTCTTTAAGAAAGGAG
ACCTCTATTTCAACAGTGGAGATCTCTTAATGGTTGACCATGAAAATTTTATCTATTTCCACGACAGAGTTGGAG
ATACATTCCGGTGGAAAGGGGAAAATGTGGCCACCACTGAAGTTGCTGATACAGTTGGACTGGTTGATTTGTCC
AAGAAGTAAATGTTTATGGAGTGCATGTGCCAGATCATGAGGGTCGCATTGGCATGGCCTCCATCAAAATGAAAG
AAAACCATGAATTTGATGGAAAGAACTCTTTCAGCACATTGCTGATTACCTACCTAGTTATGCAAGGCCCCGGT
TTCTAAGAATACAGGACACCATTGAGATCACTGGAACTTTTAAACACCGCAAAATGACCCTGGTGGAGGAGGGCT
TTAACCCTGCTGTTCATCAAAGATGCCTTGATTTCTTGGATGACACAGCAAAAATGTATGTGCCTATGACTGAGG
ACATCTATAATGCCATAAGTGCTAAAACCTGAAACT**CTGA**ATATTCCAGGAGGATAACTCAACATTTCCAGAA
AGAAACTGAATGGACAGCCACTTGATATAATCCAACCTTAATTTGATTGAAGATTGTGAGGAAATTTGTAGGAA
ATTTGCATACCCGTAAAGGGAGACTTTTTTAAATAACAGTTGAGTCTTTGCAAGTAAAAAGATTTAGAGATTATT
ATTTTTCAGTGTGCACCTACTGTTTGTATTTGCAAACTGAGCTTGTGGAGGGAAGGCATTATTTTTTAAATAC
TTAGTAAATTAAATGAAC

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FIGURE 469

MLSAIYTVLAGLLFLPLLVLNLCPPYFFQDIGYFLKVAAGRRVRSYGQRRPARTILRAFLEKARQTPHKPFLLFR
DETLTYAQVDRRSNQVARALHDHLGLRQDCVALLMGNEPAYVWLWLGLVKLGCAMACLNYNIRAKSLLHCFQCC
GAKVLLVSPQLQAAVEEILPSLKKDDVSIYYVSRTSNTDGDIDFVLDKVDEVSTEPIPESWRSEVTFSTPALYIYT
SGTTGLPKAAMITHQRIWYGTGLTFVSGLKADDVIYITLPPFYHSAALLIGIHGCIVAGATLALRTKFSASQFWDD
CRKYNVTVIQYIGELLRYLCNSPQKPNDRDHKVRLALGNGLRGDVWRQFVKRFGDICIYEFYAATEGNIGFMNYA
RKVGAVGRVNYLQKKIITYDLIKYDVEKDEPVRDENGVCVRVPKGEVGLLVCKITQLTPFNGYAGAKAQTEKKL
RDVFKKGDLYFNSGDLLMVDHENFIYFHDRVGDTRWKGENVATTEVADTVGLVDFVQEVNVYGVHVPDHEGRIG
MASIKMKENHEFDGKKLFQHIADYLPYARPRFLRIQDTIEITGTFKHKMTLVEEGFNPAVIKDALYFLDDTAK
MYVPMTEDIYNASAKTLKL

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FIGURE 470

CTCTCTCTCTATCTCTCTCAGAAATGACAATTCTAGGTACAACTTTTGGCATGGTTTTTTCTTTACTTCAAGTCGT
TTCTGGAGAAAGTGGCTATGCTCAAAATGGAGACTTGGAAGATGCAGAACTGGATGACTACTCATTCTCATGCTA
TAGCCAGTTGGAAGTGAATGGATCGCAGCATTCACTGACCTGTGCTTTTGAGGACCCAGATGTCAACACCACCAA
TCTGGAATTTGAAATATGTGGGGCCCTCGTGGAGGTAAAGTGCCTGAATTTCAGGAAACTACAAGAGATATATTT
CATCGAGACAAAGAAATCTTACTGATTGGAAAGAGCAATATATGTGTGAAGGTTGGAGAAAAGAGTCTAACCTG
CAAAAAATAGACCTAACCACTATAGTTAAACCTGAGGCTCCTTTTGACCTGAGTGTATCTATCGGGAAGGAGC
CAATGACTTTGTGGTGACATTTAATACATCACACTTGCAAAAGAAGTATGTAAAAGTTTTAATGCATGATGTAGC
TTACCGCCAGGAAAAGGATGAAAACAAATGGACGCATGTGAATTTATCCAGCACAAAGCTGACACTCCTGCAGAG
AAAGCTCCAACCGGCAGCAATGTATGAGATTAAAGTTCGATCCATCCCTGATCACTATTTTAAAGGCTTCTGGAG
TGAATGGAGTCCAAGTTATTACTTCAGAACTCCAGAGATCAATAATAGCTCAGGGGAGATGGATCCTATCTTACT
AACCATCAGCATTTTGAGTTTTTTCTCTGTCGCTCTGTTGGTCATCTTGGCCTGTGTGTTATGGAAGAAAAGGAT
TAAGCCTATCGTATGGCCAGTCTCCCCGATCATAAGAAGACTCTGGAACATCTTTGTAAGAAACCAAGAAAAA
TTTAAATGTGAGTTTCAATCCTGAAAGTTTCCTGGACTGCCAGATTATAGGGTGGATGACATTCAAGCTAGAGA
TGAAGTGAAGGTTTTCTGCAAGATACGTTTTCTCAGCAACTAGAAGAATCTGAGAAGCAGAGGCTTGGAGGGGA
TGTGCAGAGCCCCAACTGCCCATCTGAGGATGTAGTCGTCACTCCAGAAAGCTTTGGAAGAGATTATCCCTCAC
ATGCCTGGCTGGGAATGTCAGTGCATGTGACGCCCTATTCTCTCCTCTTCCAGGTCCTTAGACTGCAGGGAGAG
TGGCAAGAATGGGCCTCATGTGTACCAGGACCTCCTGCTTAGCCTTGGGACTACAAACAGCACGCTGCCCCCTCC
ATTTTCTCTCCAATCTGGAATCCTGACATTGAACCCAGTTGCTCAGGGTCAGCCCATTCTTACTTCCCTGGGATC
AAATCAAGAAGAAGCATATGTCACCATGTCCAGCTTCTACCAAACCAGTGAAGTGTAAAGAAACCCAGACTGAAC
TTACCGTGAGCGACAAAGATGATTTAAAGGGAAGTCTAGAGTTCCTAGTCTCCCTCACAGCACAGAGAAGACAA
AATTAGCAAAACCCCACTACACAGTCTGCAAGATTCTGAAACATTGCTTTGACCACTCTTCTGAGTTCAGTGGC
ACTCAACATGAGTCAAGAGCATCCTGCTTCTACCATGTGGATTGGTCAACAAGGTTTAAGGTGACCCAATGATTC
AGCTATTT

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FIGURE 471

MTILGTTFGMVFSLLQVVSGESGYAQNGDLEDAELDDYSFSCYSQLEVNGSQHSLTCAFEDPDVNTTNLEFEICG
ALVEVKCLNFRKLQEIYFIETKKFLLIGKSNICVKVGEKSLTCKKIDLTITVKPEAPFDLSVIYREGANDFVVTF
NTSHLQKKYVKVLMHDVAYRQEKDENKWITHVNLSSSTKLTLQKRLQPAAMYKIKVRSIPDHYFKGFWSEWSPSY
FRTPEINNSSGEMDPILLTISILSFFSVALLVILACVLWKKRIKPIVWPSLPDHKKTLEHLCKKPRKNLNVSNP
ESFLDCQIHRVDDIARDEVEGFLQDTFPQLESEKQRLGGDVQSPNCPSEDVVVTPESFGRDSSLTCLAGNVS
ACDAPILSSSRSLDCRESGKNGPHVYQDLLLLSLGTTNSTLPPFSLQSGILTLPVQAQGPILTSLGSNQEEAYV
TMSSFYQNG

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FIGURE 472

GCCCAGACCTATGGATTGAAAGCGTGTGCTTTACCCATCTGCTGTCTTGCTCCATCTGAGACCAGAGCCAAGATC
TGCCAGGACTGGAATGCTTTCCCGAGTGGCTTGAGTTGGAGCCTGGGACTAGGAGCAGCCTTATTGAGGTACAA
TTCATGTGCTTGTGGGTTTGGATGGCACAATCTGTGTCTGGGCTAAGGAAAGCAGACTTGGCACCAACATTAACC
CTGACAGATCCAGGCATCTATTCCAGGAAGTGAAGCCAAGCGCAACAGGTGCTTGAGGTCATCATGATCAGCC
CAGACCCCAGGCCCTCCCTGGCTTGGCCCGGTGGGCTGAGAGCTATGAGGCCAAGTGTGAGCGCAGGCAAGAGA
TCCGTGAAAGCCGCCGCTGCCGTCCCAATGTGACCACTTGCCGCCAGGTGGGGAAGACGCTGAGGATCCAACAGA
GAGAGCAGCTCCAGAGAGCTCGACTGCAGCAGTTCTTCAGGAGGAGGAACCTGGAGCTAGAGGAGAAGGGCAAG
CGCAGCATCCCCAGGCCAGGGAGCAAGGGCCCTCCAGGCGGCCAGGACAGGTGACAGGCACCAGCTCTGAAGTCT
TTCCAGCCCAGCATCCTCCTCCTCAGGCATCTGCAGGGATCTGTCTGACCACCTCTCCTCACAGGCTGGGGGCC
TTCTCCACAGGACACTCCCATCAAGAAGCCACCCAAACACCACCGTGGTACTCAGACAAAGGCAGAAGGACCAA
CAATTAAGAACGATGCCAGTCAGCAAACCAATTACGGAGTTGCAGTTCTGGATAAGGAAATCATCCAGCTTTCTG
ATTACCTCAAAGAGGCCCTACAAAGGGAGCTGGTCCTAAAAACAGAAAATGGTGATTCTCCAAGACCTACTGTCCA
CTCTGATTACAGCCTCTGACAGCTCTTGGAAGGGACAGCTTAATGAAGACAACTGAAGGGGAACTGAGATCCT
TAGAAAACCAGCTATACACCTGTACCCAGAAATACTCCCCCTGGGGAATGAAAAAGTACTACTGGAGATGGAAG
ACCAGAAAAACAGCTATGAGCAGAAGGCCAAGGAGTCACTGCAGAAAGTGCTGGAGGAGAAAATGAATGCAGAGC
AGCAACTACAGAGCACACAGCGATCCCTGGCCCTGGCAGAGCAGAAGTGTGAAGAGTGGAGGAGCCAGTATGAGG
CTCTGAAGGAGGACTGGAGGACCCTTGGGACCCAGCACAGGGAGCTGGAGAGCCAACCTCCACGTGCTTCAGTCCA
AACTGCAGGGAGCAGATAGCAGGGACTTACAGATGAACCAGGCCCTGCGATTTTTGGAAAATGAGCACCAGCAAC
TGCAGGCCAAGATTGAATGCCTGCAAGGGGACAGAGACCTGTGCAGCTTGATACCCAGGACCTACAAGATCAAC
TAAAAAGGTCAGAGGCAGAGAACTCACCTGGTGACCAGAGTACAGCAGTTGCAGGGTTTGCTTCAAATCAAT
CCTTACAGCTTCAAGAACAGGAGAACTCTTAACAAAGAAAGATCAGGCTTTGCCCGTGTGGAGTCCAAAGTCCT
TCCCTAACGAAGTGGAGCCTGAGGGTACAGGGAAGGAGAAAGACTGGGATCTCAGAGACCAGCTGCAAAAGAAGA
CTTTGCAGCTCCAGGCCAAGGAAAAGGAGTGCAGAGAACTGCATTGAGAATTAGACAACCTCAGTGACGAGTATC
TCTCCTGCCTGCGTAAGCTGCAGCACTGTGAGAAGAGCTGAACCAGAGCCAGCAGCTGCCTCCAGAAGGCAAT
GTGGGCGATGGCTCCAGTGCTGATGGTGGTGATTGCTGCAGCACTGGCAGTGTTCTTGCCCAATAAAGACAACC
TGATGATCTGAAATAATTTGTGACAACCTGCCTTGGGTGAAAATCAGAAGCAAGCAACTCAGCGAAAACTCAGAAG
GTTTGGGTACATTACAGCTTGGGTTTTCCAACCTGACTTAGGATTTCTGACTTTTTTATTAATTTCTTAACCTACTG
TAAATAAACTTCACCTGACCAGATTGTTCTCA

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FIGURE 473

MISPDPRPSPGLARWAESYEAKCERRQEIRESRRCPNVTTCRQVGKTLRIQQREQLQRARLQQFFRRRNLELEE
KGKAQHPQAREQGSPRRPGQVTGTSSEVFPAQHPPPSGICRDLSDDLSSQAGGLPPQDTP IKKPPKHHRGTQTKA
EGPTIKNDASQQTNYGVAVL DKEIIQLSDYLKEALQRELVLKQKMVILQDLLSTLIQASDSSWKGQLNEDKLK GK
LRSLENQLYTCTQKYS PWGMKKV LLEMEDQKNSYEQKAKESLQKVLEEKMNAEQQLQSTQ RSLALAEQKCEEWRS
QYEALKEDWRTLGTQHRELESQ LHVLSKLGADSRDLQMNQALRFLENEHQQLQAKIECLQGDRDLCSLDTQDL
QDQLKRSEAEKLT LVTRVQQLQGLLQNSQLQEQEKLLTKKDQALPVWSPKSFPNEVEPEGTGKEKDWDLRDQL
QKKTLLQLAKEKECRELHSELNLSDEYLSCLRKLQHCREELNQSQQLP PRRQCGRWLPVLMVVIAAALAVFLAN
KDNLMI

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FIGURE 474A

GGCTCCAGCTCCAGCAGCCATGGCGCCTTGTGCAGCCTCCTTTGTGGGTGGAGAAGAGCTCAGCCAACCTTGGAT
GGAGCGTCGGTGAAGCAAGAGCTCAGAGGGGAGAGGGCTGGCCTGGCATGACCGTCGCCAGTCCCCCACCTGG
CTGGGTGATGTCCCCCGGCCGGTTCTGGGGCCCCCTTGGCAGTACCATGGAGCAACTGACAACCCTCCCACGGC
CTGGGGACCCTGGAGCCATGGAGCCATGGGCACTGCCACCTGGCATAGCTGGACTCCAGGTCGAGGGGTGAAC
CTAGCAGTGCAGCCCCAAGCATCGCTGATACTCCTCCGGCAGCTCTGCAGCTTCAAGAACTGAGGTCTGAGGAGA
GTTCCAAGCCCAAAGGAGACGGGAGCTCCAGGCCCGTGGGGGGAAGTACCCTGAAGGAGCAGAGGCTTGTCTGC
CCAGCCTGGGCCAGCAAGCATCCAGCTCTGGACCCGCTGCCAGAGGCCAGAGGATGAGGAAGTGGAGGCTTTCC
TGAAGGCCAAGCTGAATATGAGCTTTGGGGACAGGCCCAATCTGGAGCTGCTGAGGGCCCTGGGGGAGCTGCGGC
AGCGCTGTGCCATCCTTAAGGAGGAAAACCAGATGCTGAGGAAGAGCAGCTTCCCTGAGACAGAAGAGAAGGTGC
GGAGGCTGAAGCGGAAGAACGCCGAGCTGGCGGTCAATTGCCAAGCGCCTGGAGGAGAGGGCCGAAAGCTGCAGG
AAACGAACCTGAGGGTGGTGAAGTCCCCCTTGCCCCGGCCGGGGACCAGCTTGGAGTTGTGTGCGAAGGCCCTAG
CCCCCAGCGAGCCCGGGACCTCAGTGAGACAGCCAGTGCCTGCTGGCCAAGGACAAGCAGATTGCTGCCTTGC
AGCGGGAGTGCAGGGAGCTGCAGGCCAGGCTCACTCTGGTGGGCAAGGAGGTTCCCCAGTGGCTCCACGTGCGGG
ACTTCGATCGGTGCTGCGCGAGTCCCAGCGGGAGGTGCTGCGGTGCAGAGGCAGATCGCGCTGCGCAACCAGC
GGGAGACGCTCCCGCTCCCGCCGCTCTGGCCCCCGGGCCCTGCTCTCCAGGCCAGAGCAGGGGCGCCTGCTCCCC
GGGCCCCGGGAGAGGCCACGCCCCAGGAGGATGCGGACAACCTACCCGTGATTCTAGGGGAGCCAGAGAAAGAGC
AGAGGGTGCAGCAGCTGGAATCGGAGCTCAGCAAGAAGCGGAAGAAATGCGAGAGCCTGGAGCAGGAAGCCCCGA
AAAAGCAGAGGCGATGTGAGGAGCTGGAAGTGCAGCTGAGACAAGCGCAGAATGAGAATGCCCGCCTGGTGGAGG
AGAACTCCCGGCTCAGTGGGAGAGCCACAGAGAAGGAGCAGGTGGAGTGGGAGAATGCGGAGCTGAGGGGGCCAGC
TCCTGGGGGTGACACAGGAGAGGGACTCAGCCCTTCGCAAGAGCCAGGGCCTGCAGAGCAAGCTGGAGAGCCTGG
AGCAAGTGCTGAAGCACATGCGGGAGGTGGCCCAGCGCGGCAGCAGCTGGAGGTGGAGCATGAACAGGCTCGGC
TCAGCCTACGGGAGAAGCAGGAGGAGGTCCGGAGACTGCAGCAGGCCAGGCTGAAGCCCAGAGGGAACATGAAG
GAGCCGTGCAGCTGCTGGAGTCTACCTTGGATTCCATGCAGGCCCGGGTTCGAGAGCTCGAAGAACAGTGCCGCA
GCCAAACCGAGCAGTTCAGCCTCCTGGCACAAGAACTCCAGGCTTTCCGCTGCACCCGGGCCCTTGGATCTGC
TCACATCTGCCCTGGACTGTGGGAGCCTTGGAGACTGCCACCACCCCCCTGCTGCTGCTCCATTCCCCAGCCTT
GCCGGGGGTCTGGCCCCAAAGACCTTGACCTCCCGCCGGGTCCCCCTGGGCGCTGCACCCCAAAGTCTTCCGAGC
CTGCCCCCTGCCACTCTCACTGGGGTCCCTCGAAGGACAGCCAAGAAGGCAGAGTCTCTCTCCAATCCTCCCACT
CCGAGTCCATCCACAACAGCCCCAAGTCATGCCCTACACCTGAGGTGGACACAGCCAGTGAGGTAGAGGAGCTGG
AGGCAGACAGTGTCTCCCTGCTCCCAGCTGCGCCAGAGGGCAGCCGGGGAGGAGCCAGGATCCAGGTCTTCTAG
CACGTTATAGCTACAACCCCTTTGAGGGTCCCAATGAGAATCCAGAAGCAGAGCTTCCGCTGACAGCTGGCGAGT
ACATCTACATCTATGGCAACATGGATGAGGATGGCTTTTTTGAAGGAGAGCTCATGGATGGCCGAAGGGGCTGG
TCCCTTCCAATTTTGTAGAGCGTGTGTGCGATGATGACCTCCTGACCTCCCTCCCTCCAGAGCTGGCCGATTGT
CCCACAGCTCAGGCCCTGAAGTCACTTTCCTGAGTGTAGGTGGGGGTGGCAGCAGTAGCGGGGGCCAAAGCAGTG
TGGGAAGGAGCCAGCCAGACCTGAGGAGGAGGATGCAGGGGACGAGCTCAGTCTGAGCCCATCACCGGAGGGCC
TGGGCGAGCCTCCTGCCGTGCCTTACCCCCGCGTCTGGTGGTCTCAAGCAGCTGGCCACAGCGTGGTGTGCTG
CCTGGGAGCCGCTCCTGAGCAAGTGGAGCTACACGGCTCCATATCTGTGTGAATGGGGAGCTGCGACAGGCCC
TGGGGCCTGGGGCGCCACCCAAGGCCGTGCTGGAGAACCTGGACCTGTGGGCCGGGGCCCTTCACATTCTGTCC
AGGCCCTGACTAGCCGGGGCAGCTCTGACCCACTGCGCTGTTGCTTGGCGGTGGGTGCCGGGGCCGGAGTGGTGC
CCAGCCAGCTGCGGGTCCATCGGTTGACAGCCACATCTGCTGAGATCACCTGGGTGCCCGGCAATAGCAACTTG
CCCATGCCATCTACCTCAATGGGGAAGAATGCCACCTGCCAGCCCCAGTACCTACTGGGCCACCTTCTGCCACT
TACGGCCTGGCACACCCTATCAGGCCCAAGTGGAGGCTCAGCTCCCACCCCAAGGGCCCTGGGAACCAGGCTGGG
AGAGGCTGGAGCAGCGGGCTGCCACCCTGCAGTTACCCACACTCCCAGCAGGCCACCTGATGCCCTCTGGATG
TGCAGATCGAGCCTGGGGCCCTCCCTGGGATCTTGATCATCAGTTGGCTCCCAGTCACCATCGATGCTGCTGGCA
CATCCAACGGTGTCCGGGTACAGGCTATGCCATCTACGCTGATGGGCAGAAGATCATGGAGGTGGCCTCACCCA
CGGCAGGCAGTGTACTGGTGGAGTTGTCCAGCTGCAGCTGCTGCAGGTGTGTGCTGAGGTGGTCTGTCGCACCA
TGTCGCCCCACGGGGAGTCGGCGGACTCCATCCCGGCTCCTATCACTCCCGCCCTGGCTCCGGCCAGCCTGCCAG
CCCGAGTCTCTGCCCTCACCGCACCCAAGCCCAGAGGCCAGAGCGCCCTTGCTTACAGCTCCCCAGGGCCTG
GAGACCCAGCTCTCTCTCCAGCACCTGCTCCCCCTTGGAAGTCAAGAGCCTCCAGGAGCACCCCTGCAAGCC

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FIGURE 474B

CTTCCAGAGAGATGGCAAAGGGTCCACGAGGACCTCCAGCACCTTGCTCCCAGGAGGAGGCTGGGGCAGCAG
 TGCTGGGCACCTCAGAGGAGAGGACAGCCAGCACATCTACCCTGGGTGAGAAGGACCCTGGCCCCGAGCTCCCT
 CACTGGCCAAGCAGGAGGCCGAGTGGACTGCAGGAGAGGCCTGTCCGGCCTCCAGCTCCACCCAGGGAGCACGGG
 CCCAGCAGGCGCCAAATACCGAGATGTGCCAAGGAGGAGACCCAGGGTCTGGGCTGAGGCCAGGGCTGAGAAGG
 AGGACACAGCAGAGCTTGGGGTTCATCTGGTGAACCTCCCTCGTGACCACGGCCGCAACTCAGACCTGTCAGACA
 TCCAGGAGGAAGAGGAAGAGGAGGAGGAGGAGGAAGAGGAGCTGGGTTCAGGACTTGCTCCTTCCAGAAGC
 AGGTTGCTGGCAACAGCATCAGGGAGAATGGGGCCAAGTCCCAGCCCGACCCCTTTTGTGAGACTGACAGCGATG
 AGGAGATCTTGGAGCAGATCCTGGAGCTGCCCCCTCCAGCAGTTCTGTAGCAAGAAGCTCTTTAGCATCCCGGAGG
 AGGAGGAAGAGGAAGAGGAGGACGAGGAGGAGAGAAGTCTGGGGCAGGCTGTTCTTCCCGAGACCCTGGCCCCG
 CTGAACCTGCATTGCTGGGGCTGGGCTGTGACAGTGGTCAGCCCCGAAGACCTGGCCAGTGTCCCTTGTCTCCTG
 AGTCTCCAGGGCTGGAGACTGCCTGGAAGACATGCCTGGATTAGTTGGTGGGAAGCAGCCGGAGGAGAGGAGGGG
 GCTCCCCCTGAGAAGCCCCCAAGCCGAGGCGGCCTCCAGATCCCCGAGAACACTGCAGCCGACTTCTCAGCAACA
 ATGGGCCCCAGGCCTCTGGACGACTGGGCCCCACACGGGAGAGGGGTGGCCTCCCCGTAATTGAGGGCCCCAGGA
 CTGGACTAGAGGCTAGCGGGAGAGGCCGGCTGGGCCCTTCCCGGAGGTGCTCCCGTGGCCGGGCGCTGGAGCCTG
 GCCTGGCCAGCTGCCTTTCCCCCAAGTGCTTGGAAATCAGCATTGAATATGATTTCGGAGGATGAGCAGGAGGCCG
 GCAGCGGGGGCATCAGCATCACCAGCTCCTGCTACCCTGGAGATAGGGAGGCCTGGGGCAGCAACTGTAGGAA
 GGCCCAGGGGGCCTCCGAAGGCCAATTCAGGCCCCAAGCCCTACCCACGCCTCCCAGCCTGGGAGAAAGGGGAAC
 CAGAGCGGAGAGGCCGCGAGTGCAGCGGGCAGAGCCAAGGAGCCACTCTCCCGGGCAACAGAGACCGGAGAGGCCA
 GAGGGCAGGACGGCTCTGGGCGGAGGGGCCCCCAGAAGAGAGGTGTCCGAGTCCTCAGGCCAAGCACTGCAGAGC
 TAGTCCCTGCGAGGAGCCCCCTCAGAAACACTGGCTTACCAGCACCTACCCGTCAGGATCTTTGTGGCTCTGTTTG
 ACTATGACCCCGTGTCAATGTGCCCCAATCCTGATGCTGGAGAAGAAGAGCTTCCCTTCCGAGAGGGTCAGATCC
 TGAAGGTGTTTGGGGACAAGGATGCCGATGGCTTCTACCAGGGCGAAGGTGGGGGCCGGACAGGCTACATTCCCT
 GCAACATGGTGGCTGAGGTGGCTGTGGACAGCCCTGCTGGGAGACAGCAACTGCTCCAGCGGGGTATTGTGCC
 CAGATATTCTCCTTGAGGGCTCAGGGAATGGTCCGTTTGTGTACTCCACAGCCACACAACCTGGGCCTCCTCCCA
 AGCCCCGCGCTCCAAGAAAGCTGAGTCGGAAGGCCCTGCCAGCCCTGTCCAGGCCCCCCTAAGCTGGTCCCTT
 CTGCTGACCTGAAAGCTCCCCACTCCATGGTGGCTGCATTTGACTACAACCCCCAGGAGAGTTCCCCCAATATGG
 ACGTGGAGGCAGAGCTGCCCTTCCGGGCAGGGGATGTCATTACTGTGTTTGGGGCATGGACGATGACGGTTTCT
 ACTATGGGGAATTAAATGGACAAAGGGCCTGGTTCCATCCAACCTTCTGGAGGGCCCTGGGCCTGAGGCAGGCG
 GCCTGGACAGGGAACCCAGGACACCCAGGCTGAGAGTCAGAGAACGAGGAGGAGAAGAGTCCAGTGCTAGATGG
 AGATAGATATATGTAGAGAGAGCAACATGACTGGGGCTGCACCACACAAGGGTCCCCAGGGCCCCCAGGTGGGCC
 TTGTACCCCCAGCTCTGGCAGCGCCCCAGGATTGAACGTGGGGAGCCCCAGGGCAGAAGCGAGAAGGTGTGGGT
 TTTTTTCCAAGGGGAAGCAGCTCCTCAGGAGGATGGGCTCTGGGAAGAAGGAGTGAAGCTGTGGCCCATCCTGCA
 GGCAGAAGAGGCCCTGAGAGGCCCCAGATCACTGTTTTTGTGAGCAGGGAAGGCTCAGAATGGGCCCCAGAGCC
 CCCGTTCTTTTGCCTTAACACTGTGGCATTGAGAGGAATCAAAGAGCCTTGGTGAAGGTGAGAGCTAAATGGCT
 CCTTAAGGATGAACTTTTAGAGAAGCACCTTCTCCTACAGGAGGGGAACTGAGCCACAGTGAGTATGTAAC
 TTGACCAAGGTCACTGAGCCAGGACTGGACCCAGGACCTCGCGTCTGGTCCACCCACCTCGTCTACTAGTGTG
 CCACAGTGCTGCGCTAGTCCCTTTTGCCACCCTTCCAGTCCCAGGACGGGCCCTGGAGGGAGAAAGGAGCCTGT
 GCCCCCTGATGGCTCTGGCTGTCTGATCCTGTCTTCCCTCCCCTGAAGGAAAGTTTGCAGTGGATTTTATTGGA
 GCCCCATCTCCCAGCGGGCAGGCGGGCGGAGCCTGTATATATGTATATACTCAGTGCCTCAGTTCAGCTTCCCTC
 CACCTCGCTTCCACTGCACAGGCCCAGGAAGGAGAAAGGCCAAGCCAAAGTGGGCCCCACCCTGCCCCCGTCGTG
 CTCCATCCTTCCCTGCCGGGGCCTGCTGGCCCCGTAAAGGTCCCGCCCCCAAAGACCCTGGGGCCAGCGGGGCCG
 AAAGCGGAGTTGGGTTTGCTTATTTTGCTCATTGGATTCAAGTTCTTTTGCATAGTTTTTTTCTAACCCCTGTTG
 GAGTCCAGGGGCTGGAGAAAAGGACAGATTTATGCAGCTATTTTCATACATTCCCTGTTTCAGAGTGGGGTAGGGG
 TTTTCCGCCGTTACCCGATCCAATCCATCCCCCACCCCTTTGAGGGGTGAGTGTGTCTTTGCATGTTTCTTTGCT
 GTGGTGGGAGATAGTTTGAAGTGAACCCCCACCTTGACCTTGGTCTCCAGGGGTGTGGAATGGTGGGGGAATTTGT
 TTAAAAAGACATTTTATTATAATAAAGTCTATTTTCACAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 475

MEQLTTLP RP GD P GAME P WAL P T W H S W T P G R G G E P S S A A P S I A D T P P A A L Q L Q E L R S E E S S K P K G D G S S R P V G G T
D P E G A E A C L P S L G Q Q A S S S G P A C Q R P E D E E V E A F L K A K L N M S F G D R P N L E L L R A L G E L R Q R C A I L K E E N Q M L R K S
S F P E T E E K V R R L K R K N A E L A V I A K R L E E R A R K L Q E T N L R V V S A P L P R P G T S L E L C R K A L A R Q R A R D L S E T A S A L L
A K D K Q I A A L Q R E C R E L Q A R L T L V G K E G P Q W L H V R D F D R L L R E S Q R E V L R L Q R Q I A L R N Q R E T L P L P P S W P P G P A L
Q A R A G A P A P G A P G E A T P Q E D A D N L P V I L G E P E K E Q R V Q Q L E S E L S K R K K C E S L E Q E A R K K Q R R C E E L E L Q L R Q A
Q N E N A R L V E E N S R L S G R A T E K E Q V E W E N A E L R G Q L L G V T Q E R D S A L R K S Q G L Q S K L E S L E Q V L K H M R E V A Q R R Q Q
L E V E H E Q A R L S L R E K Q E E V R R L Q Q A Q A E A Q R E H E G A V Q L L E S T L D S M Q A R V R E L E E Q C R S Q T E Q F S L L A Q E L Q A F
R L H P G P L D L L T S A L D C G S L G D C P P P C C C S I P Q C R G S G P K D L D L P P G S P G R C T P K S S E P A P A T L T G V P R R T A K K
A E S L S N S S H S E S I H N S P K S C P T P E V D T A S E V E E L E A D S V S L L P A A P E G S R G G A R I Q V F L A R Y S Y N P F E G P N E N P E
A E L P L T A G E Y I Y I Y G N M D E D G F F E G E L M D G R R G L V P S N F V E R V S D D D L L T S L P P E L A D L S H S S G P E L S F L S V G G G
G S S S G G Q S S V G R S Q P R P E E E D A G D E L S L S P S P E G L G E P P A V P Y P R R L V L K Q L A H S V V L A W E P P P E Q V E L H G F H I
C V N G E L R Q A L G P G A P P K A V L E N L D L W A G P L H I S V Q A L T S R G S S D P L R C C L A V G A R A G V V P S Q L R V H R L T A T S A E I
T W V P G N S N L A H A I Y L N G E E C P P A S P S T Y W A T F C H L R P G T P Y Q A Q V E A Q L P P Q G P W E P G W E R L E Q R A A T L Q F T T L P
A G P P D A P L D V Q I E P G P S P G I L I I S W L P V T I D A A G T S N G V R V T G Y A I Y A D G Q K I M E V A S P T A G S V L V E L S Q L Q L L Q
V C R E V V V R T M S P H G E S A D S I P A P I T P A L A P A S L P A R V S C P S P H P S P E A R A P L A S A S P G P G D P S S P L Q H P A P L G T Q
E P P G A P P A S P S R E M A K G S H E D P P A P C S Q E E A G A A V L G T S E E R T A S T S T L G E K D P G P A A P S L A K Q E A E W T A G E A C P
A S S S T Q G A R A Q Q A P N T E M C Q G G D P G S G L R P R A E K E D T A E L G V H L V N S L V D H G R N S D L S D I Q E E E E E E E E E E E E L
G S R T C S F Q K Q V A G N S I R E N G A K S Q P D P F C E T D S D E E I L E Q I L E L P L Q Q F C S K K L F S I P E E E E E E E E E E E E K S G A
G C S S R D P G P P E P A L L G L G C D S G Q P R R P G Q C P L S P E S S R A G D C L E D M P G L V G G S S R R R G G S P E K P P S R R R P D P R
E H C S R L L S N N G P Q A S G R L G P T R E R G G L P V I E G P R T G L E A S G R G R L G P S R R C S R G R A L E P G L A S C L S P K C L E I S I E
Y D S E D E Q E A G S G G I S I T S S C Y P G D R E A W G T A T V G R P R G P P K A N S G P K P Y P R L P A W E K G E P E R R G R S A T G R A K E P L
S R A T E T G E A R G Q D G S G R R G P Q K R G V R V L R P S T A E L V P A R S P S E T L A Y Q H L P V R I F V A L F D Y D P V S M S P N P D A G E E
E L P F R E G Q I L K V F G D K D A D G F Y Q G E G G G R T G Y I P C N M V A E V A V D S P A G R Q Q L L Q R G Y L S P D I L L E G S G N G P F V Y S
T A H T T G P P P K P R R S K K A E S E G P A Q P C P G P P K L V P S A D L K A P H S M V A A F D Y N P Q E S S P N M D V E A E L P F R A G D V I T V
F G G M D D D G F Y Y G E L N G Q R G L V P S N F L E G P G P E A G G L D R E P R T P Q A E S Q R T R R R R V Q C

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FIGURE 476

ACCACTGCTGGCTTTTTGCTGTAGCTCCACATTCTGTGCATTGAGGGGTAAACATTAGGCTGGGAAGATGACAA
AACTTGAAGAGCATCTGGAGGGAATTGTCAATATCTTCCACCAATACTCAGTTCGGAAGGGGCATTTTGACACCC
TCTCTAAGGGTGAGCTGAAGCAGCTGCTTACAAAGGAGCTTGCAAACACCATCAAGAATATCAAAGATAAAGCTG
TCATTGATGAAATATTCCAAGGCCTGGATGCTAATCAAGATGAACAGGTCGACTTTCAAGAATTCATATCCCTGG
TAGCCATTGCGCTGAAGGCTGCCCATTACCACACCCACAAAGAGTAGGTAGCTCTCTGAAGGCTTTTTACCCAGC
AATGTCCTCAATGAGGGTCTTTTCTTTCCCTCACCAAAACCCAGCCTTGCCCGTGGGGAGTAAGAGTTAATAAAC
ACACTCACGAAAAGTT

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FIGURE 477

MTKLEEHLEGIVNIFHQYSVRKGHFDTLKSGELKQLLTKE
LANTIKNIKDKAVIDEIFQGLDANQDEQVDFQEFI
SLVAIALKAAHYHKE

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FIGURE 478

TGAATTCGGGAAGCGCCGCGAGCGGCGGATCCGGCGGCTGCTGCAGCCCCGGGCGGCTGCCGAGAAGGAGGGAGGGG
AAACACAAAGCCGGCTACGCGCTGCGAGATAACAAGAGTAATCCACAGACTTAAAAC**ATG**AGCTCAGATGCCAGC
CAAGGCGTGATTACCACTCCTCCTCCTCCAGCATGCCTCACAAAGAGAGATATTTGACCGCATCAATGAAAAAT
GACCCAGAATACATTAGGGAGAGGAACATGTCTCCTGATCTACGACAAGACTTCAACATGATGGAGCAGAGGAAA
CGAGTTACTCAGATCCTGCAAAGTCCTGCCTTTTCGGGAAGACTTGGAATGCCTTATTCAAGAACAGATGAAGAAA
GGCCACAACCCAACTGGATTACTAGCATTACAGCAGATTGCAGATTACATCATGGCCAATTCTTTCTCGGGTTTT
TCTTCACCTCCTCTCAGTCTTGCGATGGTCACACCTATCAATGACCTTCCTGGTGCAGATACATCCTCATATGTG
AAGGGAGAAAACTTACTCGCTGTAACTTGCCAGCCTGTACAGACTTGTAGACTTGTTTGGATGGGCACACCTG
GCAAATACCTATATCTCAGTAAGAATAAGTAAGGAGCAAGACCACATTATAATAATTCCCAGAGGCCTATCTTTT
TCTGAAGCTACAGCCTCCAATTTGGTGAAAGTCAATATAATAGGAGAAGTGGTTGACCAGGGAAGTACCAATTTG
AAAAATTGACCATACAGGATTCACTCCCCATGCTGCAATCTATTCAACACGTCCTGATGTTAAGTGTGTGATACAC
ATCCATACCCTTGCAACAGCAGCTGTATCCTCCATGAAATGTGGGATCCTTCCAATTTCTCAAGAGTCTCTTCTT
CTGGGAGATGTTGCCTATTATGACTACCAAGGGTCACTTGAAGAACAGGAGGAGAGAATTCAACTGCAGAAGGT
CTGGGACCAAGTTGTAAGGTGCTGGTACTCAGGAATCATGGTGTGGTTGCACTTGGAGAAACATTAGAGGAGGCT
TTTCATTATATTTTTAATGTGCAACTAGCCTGTGAGATTCAAGTGCAGGCCCTAGCAGGTGCAGGTGGAGTAGAC
AATCTCCATGTACTGGACTTTTCAGAAGTATAAAGCTTTCACTTACACTGTAGCAGCGTCTGGTGGAGGAGGTGTG
AATATGGGTTCCCATCCAAATGGAAGGTTGGCGAAATTGAGTTTGAAGGGCTTATGAGGACTCTGGACAACCTTG
GGGTATAGAACAGGCTATGCTTACAGGCATCCTCTCATTCGAGAGAAGCCTAGGCACAAGAGTGATGTGGAAATC
CCAGCAACTGTGACTGCTTTTTCTTTGAAGACGATACAATGCCACTCTCTCCTCTCCAAATACATGGCACAAGA
GGCAACAAGCGTGAAAAACAAGATGGCTGAACTCACCAAATACTTACATGAAAGTGAATGTGCCTGAGGAGTCT
CGGAACGGAGAAACCAGTCCCCGAACCAAAATCACGTGGATGAAAGCAGAAGACTCATCTAAAGTTAGTGGTGA
ACACCTATCCAAATTGAAGATCCAAATCAGTTTGTTCCTTTAAACACAAACCCGAATGAGGTACTAGAAAAGAGA
AATAAGATTTCGGGAACAAAATCGATATGACTTGAAAACAGCAGGACCACAATCTCAGTTGCTTGCTGGAATTGTT
GTGGATAAGCCACCTTCTACTATGCAATTTGAAGATGATGATCATGGCCCACCAGCTCCTCCTAACCCATTTAGT
CATCTCACAGAAGGAGAAGTTGAAGAGTATAAGAGGACAATCGAACGTAAACAACAAGGCCTAGAAGAAAACCAT
GAGCTGTTTTCCAAGAGCTTCATCTCCATGGAAGTGCCTGTCATGGTAGTAAATGGCAAGGATGATATGCATGAT
GTTGAAGATGAGCTTGCTAAGCGAGTGAGTAGGTTAAGCACAGTACAACCATAGAAAACATCGAGATTACTATT
AAGTCTCCAGAGAAAATCGAAGAAGTCCTGTACCTGAAGGCTCCCCCTTCAAATCGCCATCCAAGAAAAAGAAG
AAATTCCGCACTCCTTCTTTTCTGAAAAAGAACAAAAAAAGGAGAAAGTTGAGGCC**TAA**ATAAAGTCTTTTTAT
AATTATTATTATAACAATGTGACATTGCACATCTAAATACCACATTTAAGTTGATCATTAATATGCAATGGTAGA
TCAGATTGGGGGATGTAGCAAACCTGGACTTTAAGAACTGGAAAGAGGTTTTACAAAAGAAAACTTCAAGATTCA
TCTCTCATTTTATATGTCCAGAAATGGCTTTGGAATTTTAAGCAATTACTAGTTTTAATTAGCTCTGCCCTCATG
AAGTTTATTATT

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FIGURE 479

MSSDASQGVITTPPPPSMPHKERYFDRINENDPEYIRERNMSPDLRQDFNMMEQRKRVQILQSPAFREDLECLI
QEQMKKGHNPTGLLALQQIADYIMANSFSGFSSPPLSLGMVTPINDLPGADTSSYVKGEKLTRCKLASLYRLVDL
FGWAHLANTYISVRISKEQDHIIIPRGLSFSEATASNLVKVNIIGEVVDQGSTNLKIDHTGFSPHAAIYSTRPD
VKCVIHIHTLATAAVSSMKCGILPISQESLLLGDVAYDYQGSLEEQEERIQLQKVLGPSCVKLVLRNHGVVALG
ETLEEAFFHYIFNVQLACEIQVQALAGAGGVDNLHVLDFOKYKAFTYTVAASGGGGVNMGSHPKWKVGEIEFEGLM
RTLDNLGYRTGYAYRHPLIREKPRHKSDVEIPATVTAFSFEDDTMPLSPLQIHGTRGNKREKTRWLNSPNTYMKV
NVPEESRNGETSPRKITWMKAEDSSKVSOGTPIQIEDPNQFVPLNTNPNEVLEKRNKIREQNRYDLKTAGPQSQ
LLAGIVVDKPPSTMQFEDDDHGPPAPPNPFSLHTEGELEEYKRTIERKQQGLEENHELFSKSFISMEVPVMVNG
KDDMHDVEDELAKRVSRLSTSTTIENIEITIKSPEKIEEVLSPGSPSKSPSKKKKKFRTPSFLKKNKKKEKVEA

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FIGURE 480

CTTTCGGTCCCTTGCTTCGTCTTCGCTTTTCTTTCTACTTATTCTTATCTGTGTCCTTCGCTTTGTTTGCCCTCT
 CCGTCTGTTTTCCCTCAGGGCCCCCTTCTTTCTCGACCTTTTCAAATCGCAAATATGCGCGCCGGAGCGGCTGCG
 GAGCCGGGCGCCCTCCGCCTTCAAGTTGCGGGGCTTGCTGCTCCGTGGTGAAGCTATTAAGTACCTCACAGAAGC
 TCTTCAGTCTATCAGTGAATTAGAGCTTGAAGATAAACTGGAAAAGATAATTAATGCAGTTGAGAAGCAACCCTT
 GTCATCAAACATGATTGAACGATCTGTGGTGGGAAGCAGCAGTCCAGGAATGCAGTCAGTCTGTTGATGAACTAT
 AGAGCACGTTTTCAATATCATAGGAGCATTGATATTCCACGCTTTGTGTACAATTCAGAAAGAAAAAAATTTCT
 TCCTCTGTTAATGACCAACCACCCTGCACCAAAATTTATTTGGAACACCAAGAGATAAAGCAGAGATGTTTCGTGA
 GCGATATAACATTTTGACCAGAGGACCCACAGGCATGAATTATTTACTCCTCCGGTGATAGGTTCTCACCCCTGA
 TGAAAGCGGAAGCAAATTCAGCTTAAACAATAGAAACCTTATTGGGTAGTACAACCAAAATCGGAGATGCGAT
 TGTTCCTTGAATGATAACGCAGTTAAAAGAGGGAAAAATTTTTCTGGAAGATCCTACTGGAACAGTCCAACCTAGA
 CCTTAGTAAAGCTCAGTTCCATAGTGGTTTATACACAGAGGCATGCTTTGTCTTAGCAGAAGGTTGGTTTGAAGA
 TCAAGTGTTTCATGTCAATGCCTTTGGATTTCCACCCACTGAGCCCTCTAGTACTACTAGGGCATACTATGGAAG
 TATTAATTTTTTTGGAGGTCCTTCTAATACATCTGTGAAGACTTCTGCAAACTAAAACAGCTAGAAGAGGAGAA
 TAAAGATGCTATGTTTGTGTTTTATCTGATGTTTGGTTGGACCAGGTGGAAGTATTGGAAAACTTCGCATAAT
 GTTTGTGTTTATTCACCAGCACCTCCAACCTGCTTTATTCTGTGTGGTAATTTTTCATCTGCACCATATGGAAG
 AAATCAAGTTCAAGCTTTGAAAGATTCCCTAAAACTTTGGCAGATATAATATGTGAATACCCAGATATTCACCA
 AAGTCGTTTTGTGTTTGTACCTGGTCCAGAGGATCCTGGATTTGGTTCCATCTTACCAAGGCCACCACTTGCTGA
 AAGCATCACTAATGAATTCAGACAAAGGGTACCATTTTTCAGTTTTTACTACTAATCCTTGAGAATTCAGTACTG
 TACACAGGAAATTAAGTCTTCCGTGAAGACTTAGTAAATAAAATGTGCAGAACTGCGTCCGTTTTCTTAGCAG
 CAATTTGGCTATTCCTAATCACTTTGTAAAGACTATCTTATCCCAAGGACATCTGACTCCCCTACCTCTTTATGT
 CTGCCCAGTGTATTGGGCATATGACTATGCTTTGAGAGTGTATCCTGTGCCCAGTCTACTTGTCAATTCAGACAA
 ATATGATCCTTTCACTACGACAAATACCGAATGCCTCTGCATAAACCTGGCTCTTTTCCAAGAAGTGGATTTTC
 ATTCAAAGTTTTTATCCTTCTAATAAGACAGTAGAAGATAGCAAACCTCAAGGCTTTTGAAGATTCTTAAAGATC
 ATCTGAAGAAAATTCATCAGTTTTCTGCTTAACTCTATATCTTATGTGATTCTGATATTACAATAAAATTATGGT
 AAACCTT

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FIGURE 481

MAPERLRSRAPSAFKLRGLLLGEAIKYLTEALQSISELELEDKLEKIINAVEKQPLSSNMIERSVVEAAVQEC
QSVDETIEHVFNIIGAFDIPRFVYNSEKFLPLLMTNHPAPNLFGTPRDKAEMFRERYTILHQRTHRHELFTPP
VIGSHPDESGSKFQLKTITLLGSTTKIGDAIVLGMITQLKEGKFFLEDPTGTVQLDLSKAQFHSGLYTEACFVL
AEGWFEDQVFHVNAFGFPPTPESSSTRAYYGNINFFGGPSNTSVKTSAKLKQLEENKDAMFVFLSDVWLDQVEV
LEKLRIIMFAGYSPAPPTCFILCGNFSSAPYGKNQVQALKDSLKTLADIICEYPDIIHQSRFVFPVGPEDPGFGSIL
PRPPLAESITNEFRQRPFSVFTTNPCRIQYCTQEITVFREDLVNKMCRNCVRFPSSNLAIPNHFVKITLSQGH
TPLPLYVCPVYWAYDYALRVYPVDPDLLVIADKYDPFTTTNTECLCINPGSFPRSGFSFKVFYPSNKTVEDSKLQG
F

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FIGURE 482

GGCGCGGGGACGCGGGTTTCTGCCTCAGGCCCTGCCCTGCTCTACTCTGCGCTCTCTGCCCCGCGCCGCCGCCGCC
TCAGCCTCGGCCCTGCGCTGCGCGCCCCGGCCCGTGCTGCC**ATGG**CCTGCCGCCCGCGAAGCCCGCCGAGGCATCA
GAGCCGCTGCGACGGTGACGCCAGCCCGCCGTCCCCCGCGCGATGGAGCCTGGGACGGAAGCGCAGAGCCGACGG
CAGGCGCTGGAGGCCCGAAGACGCCGAGGAGGCAGAGCACCGCGCGCCGAGCGCAGACCCGAGAGCTTTACCAC
TCCTGAAGGCCCTAAACCCCGTTCCAGATGCTCTGACTGGGCAAGTGCAGTTGAAGAAGATGAAATGAGGACCAG
AGGAAGTTCTGATTCAAAGGAGTCTATGTCTACTGTGCCGGCTGACTTTGAGACAGATGAAAGTGTCTAATGAG
GAGACAGAAGCAGATCAACTATGGGAAGAACAATTGCCTACGATCGTTATATTAAAGAAGTCCCAAGACACCT
TCGACAACCTGGCATTTCATCCCAAGACCCCTAATAAATTTAAGAAGTATAGTCGACGTTTCATGGGACCAGCAAAT
CAAACCTCTGGAAGGTGGCTCTGCATTTTTTGGGATCCTCCAGCGGAAGAAGGATGTGATTTGCAAGAAATACACCC
TGTAGACCTTGAATCTGCAGAAAGCAGCTCCGAGCCCCAGACCAGCTCTCAGGATGACTTTGATGTGTACTCTGG
CACACCCACCAAGGTGAGACACATGGACAGTCAAGTGGAGGATGAGTTTGATTTGGAAGCTTGTTTTAACTGAACC
CTTGAGAGACTTCTCAGCCATGAGCT**TAA**CTGCCCCCTGGCGGCCAGGAAGAGAAACAGCTCCTCCCCGACTAGGT
GGAAGGCTGGCCAGGCACCAAGCATGTGTGTGCACTTGTACCTGGTGGTTTCTCTGTTAGCAGTCCATTAGCTCA
TGCTGAATTATTTTTGCCTTACTTTCTTAAGAAACATTAATTTTATGTATAGTGAGTATATTTTGCATGTTTTAA
ATTGTAAATGGAGCTAAGTCCAAGAAAGTACTTGAAGCTCTCTTCCAGCGAGCTTAATTGCGTAATCCCTGTTGT
CCTCCAGGGTAAGCTGACACGTCTACATAACTGGTTTTCCACAGGCATCTTCAGTTATTGCTTGTGAGGTGGACT
GTTTTGGATTAAACCATGTAATCCATGGGACCAATTGAGAGTCAGCTACTTTTATAGGCATCAAAGTATTCTCAG
ACACCTTTAATATCTTTATGGAACTTAATTTTTTGGCCTTTTATCAATATGTCATAACAGCATTCTGAAGTCAGA
CATTGTAAATTGAGCTATTAACTAATGAGTTTTATGTAAGTTATATGGTCTTAATTTGGTACTTGTAATAGC
ACTAGTTAGACTCTTTAGAATACTCCAAGAGTTAGGGCAGCAGAGTGGAGCGATTTAGAAAGAACATTTTAAAC
AATCAGTTAATTTACCATGTAAAATTGCTGTAAATGATAATGTGTACAGATTTTCTGTTCAAATATTCAATTGTA
AACTTCTTGTTAAGACTGTTACGTTTCTATTGCTTTTGTATGGGATATTGCAAAAATAAAAAGGAAAGAACCCTC
AAAAAAAAAAAAAAAAAAAA

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FIGURE 483

MACRPRSPPRHQSRCDGDASPPSPARWSLGRKRRADGRRWRPEDAEAEHGAERRPESFTTPEGPKPRSRCSDW
ASAVEEDEMRTVRVNKEMARYKRKLLINDFGRERKSSSGSSDSKESMSTVPADFETDESVLMMRQKQINYGKNTIA
YDRYIKEVPRHLRQPGIHPKTENKFKKYSRRSWDQQIKLWKVALHFWDPPEEGCDLQEIHPVDLESAESSSEPQ
TSSQDDFDVYSGTPTKVRHMDSQVEDEFDLEACLTEPLRDFSAMS

FIGURE 484

ATTTAAATTCTGCAGCTCAGAGATTCACACAGAAGTCTGGACACAATTCAGAAGAGCCACCCAGAAGGAGACAAC
AATGTCCCTGCTACCCGTGCCATACACAGAGGCTGCCTCTTTGTCTACTGGTTCTACTGTGACAATCAAAGGGCG
ACCACTTGCCTGTTTCTTGAATGAACCATACTGCAGGTGGATTTCCACACTGAGATGAAGGAGGAATCAGACAT
TGTCTTCCATTTCCAAGTGTGCTTTGGTCGTGTCGTGGTTCATGAACAGCCGTGAGTATGGGGCCTGGAAGCAGCA
GGTGGAATCCAAGAATATGCCCTTTCAGGATGGCCAAGAATTTGAACTGAGCATCTCAGTGCTGCCAGATAAGTA
CCAGGTAATGGTCAATGGCCAATCCTCTTACACCTTTGACCATAGAATCAAGCCTGAGGCTGTGAAGATGGTGCA
AGTGTGGAGAGATATCTCCCTGACCAAATTTAATGTCAGCTATTTAAAGAGATTAACCAGACTTCATGTTGCCAAG
GAATCCCTGTCTCTACGTGAACTTGGGATTCCAAAGCCAGCTAACAGCATGATCTTTTCTCACTTCAATCCTTAC
TCCTGCTCATTAAAACTTAATCAAACCTTCAAAAAAAAAA

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FIGURE 485

MSLLPVPYTEAASLSTGSTVTIKGRPLACFLNEPYLQVDFHTEMKEESDIVFHFQVCFGRRVVMNSREYGAWKQQ
VESKNMPFQDGQEFELISVLPDKYQVMVNGQSSYTFDHRIKPEAVKMVQVWRDISLTKFNVSYLKR

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FIGURE 486

CTCGGCGCGCGCTTGGGGCGAGGCTCGGCGGGCGCGGACGCGCAGC**ATG**GCGGTGGAGGACGAGGGGCTCCGGGT
CTTCCAGAGCGTGAAGATCAAGATCGGTGAAGCCAAAAACCTTCCCTCTTACCCGGGGCCGAGCAAGATGAGGGA
TTGCTACTGCACGGTGAACCTGGACCAGGAGGAGGTTTTTCAGGACCAAATTTGTGGAAGAGTCACTCTGCCCGTT
TTACGGAGAAGACTTTTTACTGTGAAATTCCTCGGAGCTTTTCGTACCTGTCTTTCTACATTTTCGATAGAGACGT
TTTCCGGAGGGATTCCATCATAGGGAAGGTGGCCATCCAGAAGGAGGACTTGAGAAAGTACCACAACAGGGACAC
CTGGTTCCAGCTGCAGCACGTGGACGCTGACTCGGAAGTGCAGGGCAAAGTGCACCTGGAGCTGCGGCTGAGCGA
GGTCATCACAGACACTGGGGTCGTCTGCCACAAGCTCGCCACACGCATCGTCGAGTGCCAGGGCCTCCCCATCGT
GAATGGGCAATGTGACCCCTACGCCACCGTGACGCTGGCAGGACCCTTCAGATCAGAAGCAAAGAAGACGAAAGT
GAAGAGGAAGACCAACAATCCCCAGTTTCGATGAAGTGTTTTATTTTGAGGTGACCCGGCCCTGTAGCTACAGCAA
GAAGTCCCACTTTGACTTTGAGGAGGAAGACGTGGACAAGCTCGAAATCAGAGTTGACCTCTGGAATGCCAGTAA
CCTGAAGTTTGGAGATGAATTCCTGGGAGAACTAAGGATCCCGTTGAAAGTCCTGCGGCAGTCCAGCTCCTACGA
GGCGTGGTACTTCTCCAGCCCCGGGACAATGGTAGCAAGAGCCTAAAGCCAGACGACCTGGGCTCCTTGCGGCT
GAACGTGGTATACACGGAAGACCACGTGTTTTCTTCTGACTATTACAGCCCTCTGCGGGACCTGCTGTTGAAGTC
TGCGGATGTGGAGCCCGTGTACGCGTCTGCGGCCACATCCTGGGCGAGGTTTGCCGGGAGAAGCAGGAGGCGGC
CGTCCCCGCTGGTGC GGCTCTTCTACACTATGGCAGGGTGGTGCCATTTCATCAGTGCCATCGCCAGCGCGGAGGT
GAAGCGGACCCAGGACCCCAACACCATCTTCCGAGGAAACTCACTGGCGTCCAAGTGCATTGACGAGACCATGAA
GCTGGCGGGGATGCATTACCTGCATGTACCCCTGAAGCCCGCCATCGAGGAGATATGCCAGAGCCACAAACCCCTG
TGAAATCGACCCTGTGAAGTTGAAGACGGAGAAAACCTTGAAAACAACATGGAGAACCTACGGCAGTATGTGGA
CCGCGTCTTCCAGCCATACCGAGTCTGGGGTGAGCTGCCCGACCCTCATGTGTGACATCTTCTTCTCCCTCCG
GGAGGCGGCGGCCAAGCGCTTCCAGGATGACCCGGACGTCAGGTACACTGCAGTGAGCAGCTTCATCTTCTGAG
GTTCTTTGCGCCCGCCATTCTCTCCCCAACCTCTTCCAGCTCACGCCGCACCACACGGACCCCCAGACGTCCAG
GACGCTGACATTGATCTCCAAGACCGTTTCAGACCCTCGGCAGCCTGTCCAAGTCCAAATCTGCGAGTTTTAAGGA
GTCCTACATGGCTACATTTTATGAATTCTTCAATGAGCAGAAATATGCTGATGCGGTGAAGAACTTCTTGATCT
GATTTTCGTCTTCGGGGAGAAGAGACCCCAAGAGTGTTGAGCAGCCCATCGTGCTTAAAGAAGGGTTTCATGATCAA
GAGGGCCCCAAGGACGGAAGCGCTTTGGGATGAAGAATTTTAAGAAGAGATGGTTTCGTTTGACCAACCATGAATT
TACCTACCACAAAAGCAAAGGGGACCAGCCTCTCTACAGCATTCCCATCGAGAACATCCTGGCAGTGGAGAAGCT
GGAGGAGGAGTCTTTCAAATGAAAAACATGTTCCAGGTCATCCAGCCAGAGCGTGCGCTGTACATCCAGGCCAA
CAACTGCGTGGAGGCCAAGGACTGGATCGACATTCTACCAAAGTGAGCCAGTGCAACCAGAAGCGCCTCACCGT
CTACCACCCGTCCGCCTACCTGAGCGGCCACTGGCTGTGCTGTAGGGCGCCATCCGACTCGGCTCCGGGCTGCTC
GCCCTGCACTGGCGGCCTCCCAGCCAACATCCAGCTGGACATTGATGGGGACCGTGAGACGGAGCGTATCTACTC
CCTCTTCAACTTGATACATGAGCAAGCTGGAGAAGATGCAGGAGGCCTGTGGGAGCAAATCTGTGTATGACGGCCC
GGAGCAGGAGGAGTATTCGACGTTTCGTATTGACGACCCCCAGGAGACCTACAAGACGCTAAAGCAAGTCATCCG
CTGGGTTGGGGCTTTGGAGCAGGAGCACGCCAGTATAAGAGGGACAAGTTCAAGAAGACGAAATATGGAAGCCA
GGAGCACCCCATCGGAGACAAGAGCTTCCAGAACTACATCCGGCAGCAGTCCGAGACCTCCACTCATTCCATT**TA**
AAGTCTGCGGGACGCGCC

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FIGURE 487

MAVEDEGLRVFQSVKIKIGEAKNLPSYPGPSKMRDCYCTVNLDQEEVFRTKIVEKSLCPFYGEDFYCEIPRSFRH
LSFYIFDRDVFRRDSIIGKVAIQKEDLQKYHNRDTWFQLQHVDADSEVQGVHLELRLSEVITDTGVVCHKLATR
IVECQGLPIVNGQCDPYATVTLAGPFRSEAKTKVKRKTNNPQFDEVFYFEVTRPCSYSKKSHFDFEEEDVDKLE
IRVDLWNASNLFKGDEF LGELRIPLKVLRRQSSSYEAWYFLQPRDNGSKSLKPDDLGSRLRLNVVYTEDHVFSSDY
SPLRDLLLKSADVEPVASASAAHILGEVCREKQEAAPLVRLFLHYGRVVPFISAIASAEVKRTQDPNTIFRGNSL
ASKCIDETMKLAGMHYLVTLKPAIEEICQSHKPCEIDPVKLKDGLENLNMENLRQYVDRVFHAITESGVSCPT
VMCDIFFSLREAAAKRFQDDPDVRYTAVSSFI FLRFFAPAILSPNLFQLTPHHTDPQTSRTLTLISKTVQTLGSL
SKSKSASFKE SYMATFYEFFNEQKYADAVKNFLDLISSGRRDPKSVEQPIVLKEGFMKRAQGRKRFGMKNFKK
RWFRLTNHEFTYHKS KGDQPLYSIPIENILAVEKLEESFKMKNMFQVIQPERALYIQANNCVEAKDWIDILTKV
SQCNOQRLTVYHP SAYLSGHWLCCRAPSDSAPGCSPCTGGLPANIQLDIDGDRETERIYSLFNLYMSKLEKMQEA
CGSKSVYDGPQE EYSTFVIDDPQET YKTLKQVIRWVGALQEHAQYKRDKFKKTKYGSQEHPIGDKSFQNYIRQ
QSETSTHSI

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FIGURE 488

GCAGTGTCTCCCGGTGCGCGTGGAGGTGCGTCTCAGAGCTGCTGGGCGCAGTTTCTCCGCCTGCTGCTTCGG
CGCGGCTGTATCGGCGAGCGAGCGAGTTCCCGCGAGTTCTCGGTGGCGCTCCCCCTTCCTTTAGTCTCCACGGA
CTGGCCCCCTCGTCCTTCTACTTGACCGCTCCCGTCTTCCGCCGCCTTCTGGCGCTTTCCGTTGGGCCGATTCCCG
CCCGCTTCTCCTGCTTCCCATCGAAGCTCTAGAAATGAATGTTTCCATCTCTTCAGAGATGAACCAGATTATGA
TGCATCATTATCACAGAAGAAATTCGTGTCTATAGCTTTTAAGGACTTGATTACATCATTTTCAAGCCTGATAGT
TTTGAATCACCATTAGAGCTTAAGACACACCTGCCTTCATTTCAACCACCTGTCTTCATACCCTGACGAAGTGC
ACCTTTTAACACTCCTTTGTCCTTGGAATTACTTAAGAGTTCCCAGAAATACATTTGCCACCAACAGAGTAGCCAA
ATTTATAAGGAAAAATGATTCCCAATGGATATTTGATGTTTGAGGATGAAAATTTTATTGAGTCTTCTGTTGCCA
AATTAAATGCCCTGAGGAAAAGTGGCCAGTTCTGTGATGTTGACTTCAGGTCTGTGGCCATGAAATGTTAGCAC
ACAGAGCAGTGCTAGCTTGCTGCAGTCCCTATTTATTTGAAATCTTTAATAGTGATAGTGATCCTCATGGAATTT
CTCACGTTAAATTTGATGATCTCAATCCAGAAGCTGTTGAAGTCTTGTGAATTATGCCTACACTGCTCAGTTGA
AAGCAGATAAGAATTGTAAAGATGTTTATTCTGCAGCAAAAAAGCTGAAGATGGATCGAGTAAAGCAGGTTTGTG
GTGATTATTTACTGTCTAGAATGGATGTTACCAGCTGCATCTCTTACCGAAATTTTGCAAGTTGTATGGGAGACT
CCCGTTTGTGAATAAGGTTGATGCTTATATTAGGAGCATTGTTTACAAATTTCTGAAGAGGAGGAGTTTCTTA
AGCTTCCAAGGCTAAAGTTGGAGGTAATGCTTGAAGATAATGTTTGCTTGCCAGCAATGGCAAATTATATACAA
AGGTAATCAACTGGGTGCAGCGTAGCATCTGGGAGAATGGAGACAGTCTGGAAGAGCTGATGGAAGAGGTTCAAA
CCTTGTACTIONTACTCAGCTGATCACAAGCTGCTTGATGGGAACCTACTAGATGGACAGGCTGAGGTGTTTGGCAGTG
ATGATGACCACATTCAGTTTGTGCAGAAAAAGCCACCACGTGAGAATGGCCATAAGCAGATAAGTAGCAGTTCAA
CTGGATGTCTCTCTTCTCCAAATGCTACAGTACAAAGCCCTAAGCATGAGTGGAATCGTTGCTTCAGAAAAGA
CTTCAAATAACACTTACTTGTGCCTGGCTGTGCTGGATGGTATATTCTGTGTCATTTTTCTTCATGGGAGAAACA
GCCCCACAGAGCTCACCAACAAGTACTCCAAAATAAGTAAGAGTTAAGCTTTGAGATGCAACAAGATGAGCTAA
TCGAAAAGCCCATGTCTCCTATGCAGTACGCACGATCTGGTCTGGGAACAGCAGAGATGAATGGCAAACCTCATAG
CTGCAGGTGGCTATAACAGAGAGGAATGTCTTGAACAGTGAATGCTATAATCCACATACAGATCACTGGTCCT
TTCTTGCTCCCATGAGAACACCAAGAGCCGATTTCAAATGGCTGTACTCATGGGCCAGCTCTATGTGGTAGGTG
GATCAAATGGCCACTCAGATGACCTGAGTTGTGGAGAGATGTATGATTCAAACATAGATGACTGGATTCTGTTC
CAGAATTGAGAACTAACCGTTGTAATGCAGGAGTGTGTGCTCTGAATGGAAAGTTATACATCGTTGGTGGCTCTG
ATCCATATGGTCAAAAAGGACTGAAAAATTGTGATGTATTTGATCCTGTAACAAAAGTTGTGGACAAGCTGTGCCC
CTCTTAACATTTCGGAGACACCAGTCTGCAGTCTGTGAGCTTGGTGGTTATTTGTACATAATCGGAGGTGCAGAAT
CTTGGAATTGTCTGAACACAGTAGAACGATACAATCCTGAAAATAATACCTGGACTTTAATTGCACCCATGAATG
TGGCTAGGCGAGGAGCTGGAGTGGCTGTTCTTAATGGAAAAGTGTGTTGATGTGGTGGCTTTGATGTTTCTCATG
CCATCAGTTGTGTGGAATGTATGATCCAACCTAGAAATGAATGGAAGATGATGGGAAATATGACTTCACCAAGGA
GCAATGCTGGGATTGCAACTGTAGGGAACACCATTTATGCAGTGGGAGGATTTCGATGGCAATGAATTTCTGAATA
CGGTGGAAGTCTATAACCTTGAGTCAAAATGAATGGAGCCCTATACAAAGATTTTCCAGTTTAAACAAATTTAAG
ACCTCTCAAACCTAACAGGCTTAGTGATGTAATTATGGTTAGTAGAGGTACACTTGTGAATAAAGAGGGTGGGTG
GGTATAGATGTTGCTAACAGCAACACAAAGCTTTTGATATTGCATACTATTAAACATGCTGTACATACTTTTTG
GGTTTATTTGAAAGGAATGCAAAGATGAAGGTCTGTTTTGTGTACTTTTAAGACTTTGGTTATTTTACTTTTTG
GAAAAGAATAAACCAAGAATTGATTGGGCACATCATTTCAGAAGTCCCTCTCCTCCACATTTGTTTTGCCAATT
TGCACATTAATGACTCTTCCCTCGT

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FIGURE 489

MIPNGYLMFEDENFIESSVAKLNALRKSGQFCDVRLQVCGHEMLAHRAVLACCSPYLFEIFNSDSDPHGISHVKF
DDLNPEAVEVLLNYAYTAQLKADKNCKDVYSAAKKLKMDRVKQVCGDYLLSRMDVTSCISYRNFASCMGDSRLLN
KVDAYIQEHLQLISEEEFLKLPRLKLEVMLEDNVCLPSNGKLYTKVINWVQRSIWENGDSLEELMEEVQTLYY
ADHKLLDGNLLDQGAEVFGSDDDHQFVQKKPPRENGHKQISSSTGCLSSPNATVQSPKHEWKIVASEKTSNNT
YLCLAVLDGIFCVIFLHGRNSPQSSPTSTPKLSKSLSFEMQQDELIEKPMSPMQYARSGLGTAEMNGKLIAAGGY
NREECLRTVECYNPHTDHSFLAPMRTPRARFQMAVLMGQLYVVGGSNGHSDDLSCGEMYDSNIDDWIPVPELRT
NRCNAGVCALNGKLYIVGGSDPYGQKGLKNCDVFDPVTKLWTSCAPLNIRRHQSAVCELGGYLYIIIGGAESWNCL
NTVERYNPENNTWTLIAPMNVARRGAGVAVLNGKLFVCGGFDGSHAISCVEMYDPTRNEWKMMGNMTSPRSNAGI
ATVGNTIYAVGGFDGNEFLNTVEVYNLESNEWSPTYTKIFQF

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FIGURE 490A

GGCATGGAACCTAAAGACTAGAGGCGGTTGTGTGAGTCAGGAAGAGGGGCCAGATATCTGAGTGTTCTCTTTAG
TTTCTTCAATTGCAGATAATATGGTGTCTAATTTTATGTTGTTTCAGGAAAGACAGTGGTTCCTGACTCAGGAAGA
CAGTCTCAGAAACATGTGGAATGATATTGAGCTGCTAACAAATGATGATACCGGAAGTGGGTACCTGAGTGTGG
TTCAAGAAAAGAACATGGAAGTCTTTATATCAAGTAGATTTGCTAGTGAAGATCTCTTCTGAAAAGGCCTCATT
AAATCCAAAGATACAGGCATGCAGCTTAAGTGATGGGTTTATTATTGTAGCCGACCAATCAGTGATATTGCTTGA
CAGTATTGTAGATCACTTCAATTGCATCTTGTCTTTGATACTGAAGTGGATGTAGTTGGCCTTTGTCAAGAAGG
AAAGTTTCTTTTGGTTGGCGAGAGAAGTGGCAACCTACATCTTATTTCATGTAACATCAAAACAAACACTACTCAC
TAATGCATTTGTTTCAGAAAGCTAACGATGAAAATCGGCGGACTTACCAGAATCTTGTTCATTGAGAAGGATGGTTC
AAATGAAGGTACCTATTATATGCTACTTCTTACATACAGTGGATTTTTTTGTATTACAAACCTTCAGCTTTTAAA
AATTCAACAAGCAATTGAGAATGTAGACTTCAGTACAGCAAAAAAGTTACAAGGACAAATCAAGTCCAGTTTTAT
TTCTACTGAAAATTATCATACTCTTGGTTGTCTCAGTCTTGTGGCTGGAGATTTAGCAAGTGAAGTTCCTGTGAT
AATTGGGGGAACCGGTAATTGTGCATTCTCAAAATGGGAACCAGATTCTTCCAAGAAAGGAATGACAGTTAAGAA
CCTTATTGATGCAGAGATTATTAAAGGTGCAAGAAGTTCAGCTGATAGACAATCTACTTTTTGTCTTGTATAC
TGATAACGTGCTGAGTTTATGGGATATTTACACTCTAACTCCTGTATGGAAGTGGCCCTCTCTTCACGTAGAAGA
GTTTCTTCTTACTACAGAAGCAGACTCTCCTTCATCAGTCACGTGGCAAGGAATTACAAATCTCAAATTAATAGC
TCTGACAGCTTCAGCTAATAAGAAGATGAAAAACCTCATGGTTTATTTCATTACCTACAATGGAAATACTATATTC
TTTGGAAGTATCTAGTGTCTTCTCTGGTCCAAACAGGAATTAGCACAGATACCATATACCTTTTAGAAGGAGT
TTGCAAAAATGATCCAAAATTGTCTGAAGACTCAGTCTCTGTGTTAGTACTCAGATGTCTTACGGAAGCTTTACC
AGAAAACAGATTGAGTCGGTTACTTCACAAACACAGATTTGCTGAAGCTGAGAGTTTTGCCATTTCAGTTTGGACT
AGATGTTGAGCTTGTTTACAAGGTCAAGTCAAATCATATATTGGAGAACTGGCATTGAGTTCTGTGGATGCCAG
TGAACAGACCGAATGGCAACAACCTGTAGACGACGCTAAGGAAAATCTACATAAGATCCAGGATGATGAATTTGT
GGTGAATTACTGCCTGAAAGCTCAGTGGATAACCTATGAAACCACTCAAGAGATGCTGAATTATGCCAAAACCAG
GCTTTTGAAGAAAGAAGATAAAACTGCTCTCATTATTCTGATGGCTTGAAAGAGGTGCTAAGAGCTCATGCAAA
ATTGACTACTTTTTATGGAGCATTGGACCAGAAAAATTTCAGTGGCAGTTCTTGGATTGAATTTCTAAATAATGA
AGATGATCTTAAAGATATTTTTTTACAGCTAAAAGAAGGAAACCTTGTTTGTGCACAGTATCTTTGGCTTCGACA
TCGGGCAAACCTTGAAAGCAGATTTGATGTGAAAATGCTGGAGAGCTTGCTCAACTCAATGTCTGCATCAGTCTC
TTTGCAAAAGCTGTGTCCATGGTTTAAAAATGATGTGATTCCATTGTAAGAAGGACTGTGCCTGAAGGACAGAT
AATTCTTGCAAAATGGTTGGAACAAGCAGCCAGGAACCTTGAATTAAGTGAATAAGGCAAATTGGCCAGAAAATGG
ACTTCAATTGGCAGAGATATTTTTTTACAGCAGAAAAAACAGACGAGTTGGGATTGGCATCTTCTGGCATTGGAT
TTCTTGAAAGATTATCAGAACACAGAGGAAGTATGTCAGCTAAGGACTTTGGTAAATAACTTGCGAGAGTTGAT
CACGTTGCATAGGAAGTACAACCTGCAAATTAGCCCTCTCTGATTTTGAGAAGGAAAATACAACCACCATAGTGTT
CCGAATGTTTGATAAAGTGCTGGCCCCAGAGCTTATTCCCTCCATCTTAGAGAAGTTTATAAGAGTTTACATGAG
AGAACATGACTTGCAAGAGGAGGAACCTCTCTTGCTGTACATAGAGGATTTACTGAATAGATGCAGCTCAAAGTC
CACATCACTCTTTGAAACAGCATGGGAAGCAAAGGCCATGGCAGTAATAGCGTGTATCTGACACGGACCTCAT
ATTTGATGCCGTGCTCAAGATCATGTATGCGGCAGTGGTTCCTTGGAGTGCAGCTGTGGAGCAACTGGTGAAACA
GCACCTGGAAATGGACCATCCCAAAGTCAAGTTATTACAGGAAAGTTACAACTAATGGAGATGAAAAAACTTTT
ACGAGGCTATGGAATAAGAGAGGTAAATCTCTTAAACAAGGAAATAATGAGAGTGGTTAGATACATTCTCAAACA
AGATGTCCCATCTTCTTTAGAAGATGCTTTAAAGGTAGCCCAAGCGTTTATGTTATCTGATGATGAGATCTACAG
TCTAAGAATTATTGACCTGATTGATAGAGAACAGGGTGAAGACTGTCTCCTTCTGTTGAAGTCTTTGCCTCCTGC
TGAAGCTGAGAAAAGTGCAGAAAGAGTCATCATATGGGCACGACTGGCATTACAAGAAGAGCCAGATCATTCTAA
AGAGGGCAAGGCCTGGAGAATGTCTGTAGCGAAGACATCCGTGGACATTCTTAAGATACTATGTGACATTCAGAA
AGACAATCTGCAGAAGAAGGACGAATGTGAAGAAATGTTGAACTATTTAAAGAGGTTGCTAGCTTACAGGAGAA
CTTTGAGGTCTTTCTTTTCAATTGAAGATTATAGCAATAGTTCCCTGGTAGCAGATCTCCGTGAGCAGCACATTAA
AGCTCACGAAGTTGCACAGGCGAAACACAAACCTGGGAGCACCCAGAGCCCATAGCTGCTGAGGTGAGGAGCCC
AAGCATGGAATCAAAGCTGCACAGACAGGCACTGGCCCTGCAGATGTCCAAACAAGAGCTGGAGGCAGAGCTGAC
CTTGAGAGCCTTAAAAGATGGGAACATCAAAACAGCACTGAAAAATGCAGCGACTTGTTTAAAGTATCACTGCAA
TGCTGACACTGGGAAATTGCTATTTCTGACATGTCAGAAGCTTTGTCAGATGTTGGCTGATAATGTCCAGTGAC
AGTGCCTGTGGGACTGAATCTTCTTCCATGATACATGATCTAGCAAGCCAAGCTGCCACCATTTCAGTCCAGA

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FIGURE 490B

TTTTTACTAGATGCTTTAGAACTATGTAAACATACTTTAATGGCTGTAGAGCTTTCCAGACAATGCCAAATGGA
TGACTGTGGAATCCTCATGAAAGCTTCTTTTGGGACACATAAAGATCCATATGAAGAGTGGTCTTACAGTGACTT
CTTCAGTGAAGATGGAATTGTTCTTGAGTCACAGATGGTGCTTCCAGTGATTTATGAACTGATTTTCATCTCTTGT
GCCTCTAGCTGAAAGCAAGAGATATCCCTTGGAGTCTACCAGTTTGCCATACTGCTCCCTTAATGAAGGAGATGG
CCTTGTTTTACCTGTTATAAAATTCATCTCTGCCCTGCTTCAGAATCTTCAGGAATCTAGCCAGTGGGAGCTAGC
CCTAAGATTTGTGGTTGGTTCAATTGGTACCTGTCTTCAGCACTCTGTGTCAAACCTTCATGAATGCCACTTTGAG
TGAAAAGTTATTTGGAGAGACTACATTAGTTAAATCAAGGCATGTTGTTATGGAATTGAAAAGAAAAGCTGTTAT
ATTTATCAGGGAAAATGCTACAACACTACTGCACAAAGTATTTAATTGTCGCTTGGTAGATCTTGACCTGGCGTT
GGGTTACTGCACTCTCTTACCTCAAAAAGATGTGTTTGAAAATCTCTGGAAGCTCATAGATAAAGCATGGCAGAA
TTACGACAAAATCTTGCAATATCTCTGGTGGGCTCTGAGCTGGCAAGTCTCTATCAGGAAATAGAAATGGGGCT
TAAGTTCGGTGAACCTCAGTACTGATGCCAGTGGGGCATTTCGTCTTGGTAACTTGGTATTTCTTTTCAACCAGT
TTTCAGGCAACATTTTCTCACCAAGAAAGACCTCATTAAAGCTCTTGTGGAGAATATAGATATGGACACAAGCCT
CATTTTGGAAATATTGCAGCACATTTTCAGTTGGACTGCGATGCAGTTCTTCAGCTCTTCATTGAAACGCTGCTCCA
CAACACAAATGCCGGCCAAGGCCAGGGAGATGCAAGCATGGACTCTGCAAAGCGGCGGCATCCCAAACCTCCTGGC
CAAAGCCCTTGAGATGGTTCCCTTTACTGACGAGCACAAAAGATTTGGTCATCAGTCTTAGTGGAATACTACATAA
GTTGGATCCTTATGACTATGAAATGATTGAAGTTGTCTTGAAAGTTATAGAACGAGCTGATGAAAAGATAACCAA
TATTAATATTAATCAGGCATTGAGTATTCTGAAACATTTGAAGTCATACAGAAGAATTTCTCCTCCCGTGGATCT
AGAATATCAGTATATGTTGGAACATGTCATAACTTTGCCATCAGCTGCCCCAACTAGACTGCCTTTTCACCTGAT
ATTCTTTGGCACAGCACAGAACTTCTGGAAAATTCTCTCTACAGAACTCAGTGAAGAATCTTTCCCAACATTGCT
CTTAATTTGCAAATTAATGAAGTTCTCTCTGGACACTCTGTACGTGTCTACAGCAAAACACGTTTTCGAAAAAA
ACTGAAGCCAAAGCTCCTGAAGTTAACACAAGCTAAATCCTCAACACTGATTAACAAGGAAATAACTAAGATCAC
GCAGACCATCGAATCCTGCTTACTCTCTATAGTCAACCCAGAGTGGGCTGTAGCTATTGCCATCAGCCTTGCCCCA
GGATATCCCTGAAGGTTCCCTTCAAGATATCTGCTTTGAAATTCTGCCTTTATTTAGCTGAGAGATGGCTACAGAA
TATCCCATCGCAGGACGAAAAACGTGAAAAAGCCGAGGCTTTGTTGAAGAAGCTTCATATCCAGTACCGGCGATC
GGGCACAGAAGCTGTGCTCATAGCCCACAAGCTGAACACTGAGGAATATTTAAGAGTGATCGGAAAGCCAGCACA
TCTTATTGTCACTCTCTACGAACATCCTAGCATCAATCAAAGAATTCAGAATTCATCTGGCACAGATTATCCTGA
TATTCATGCAGCAGCTAAAGAAATAGCCGAAGTCAATGAAATTAATTTGGAAAAAGTCTGGGACATGTTGTTGGA
AAAATGGCTATGCCCTTCAACAAAACCTGGTGA AAAACCATCAGAATTATTTGAACTTCAAGAAGATGAAGCCCT
ACGAAGAGTGCAATCTCCTCCTGTCTCGTCCAATTGATTATAGTTCAAGAATGCTGTTTGTATTGTGAACATC
AACTACAACCACATTAGGTATGCATCAGTTAACTTTTGCCCATAGAACTCGAGCTCTTCAGTGTCTCTTCTATTT
GGCTGACAAGGAAACTATAGAATCTCTCTTTAAAAAACCCATTGAAGAAGTGAAATCTTATTTGAGATGTATAAC
TTTTCTGGCATCATTTGAGACTTTGAATATCCCCATCACATATGAATTATTTTGACAGCAGTCTTAAAGAAGGAAT
GATTAAGGGTCTGTGGA AAAACCACAGCCACGAGTCCATGGCAGTAAGATTGGTGACTGAGCTGTGTTTAGAATA
CAAAATCTATGACCTGCAGCTTTGGAATGGACTCTTGCAAAAGCTTCTGGGCTTCAATATGATTCTTTATCTAAG
GAAAGTTTTAAAAGCCATCTCCAGTATCCATTCTTTATGGCAGGTTCCCTACTTCAGCAAAGCGTGGCAGCGTGT
GATACAGATAACACTGCTTTCAGCCTCTTGTCCTTTAAGTCCTGATCAGCTGTCAGATTGTTCTGAGAGTCTCAT
CGCTGTCTCTGAATGTCCAGTCTCAGGTGATCTTGACCTGATCGGAGTCGCCAGGCAGTATATCCAGTTAGAAT
TCCGGCTTTTGCATTAGCTTGTCTGATGCTCATGCCCCACTCAGAGAAAAGACACCAGCAAATTAAGAATTTTCT
GGGTTTCTGTGACCTCAGGTTATTTTAAAGCAATTGGAAGAGCATATGAACACGGGCCAGCTAGCAGGATTTTC
ACATCAAATTAGAAGTCTGATTTTGAATAATATCATCAATAAGAAGGAGTTGGGATTTTGGCAAAGACCAAATA
CTTTCAAATGTTGAAGATGCATGCGATGAATACCAACAATATCACTGAGCTAGTGAACATTTTGGCAAATGACTT
AAGTTTAGATGAAGCTTCAGTCTTGATAACTGAATATTCAAAGCACTGCGGGAAACCTGTGCCCTCAGACACTGC
TCCCTGTGAAATTCTGAAGATGTTTCTTAGTGGATTATCGTAAATCACTGAACCTTTTTTTTCAAGAAGGACAAGA
ATTTTGGAGTCTGCTATTAATGGACCATATTTATTACAGTTTTTAAATTGTACAATCTCTGTATTATAGCTATTT
GTCTAACATTACCCCATATGAATAATAAACAATATGAGC

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FIGURE 491

MWNDIELLTNDDTGSGYLSVGSRKHEGTALYQVDLLVKISSEKASLNPKIQACSLSDGFIIVADQSVILLDSICR
 SLQLHLVFDTEVDVVGLCQEGKFLLVGERSGNLHLIHVTSKQTLLTNAFVQKANDENRRTYQNLVIEKDGSGNEGT
 YYMLLLTYSGFFCITNLQLLKIQQAIEENVDFSTAKKLQGGQIKSSFISTENYHTLGCLSLVAGDLASEVPVIGGT
 GNCASFKEWEPDSSKKGMTVKNLIDAEIIKGAKKFQLIDNLLFVLDTDNVLSLWDIYTLTPVWNWPSLHVEEFLLT
 TEADSPSSVTWQGITNLKLIALTASANKMKMNLVYSLPTMEILYSLEVSSVSSLVQTGISTDTIYLLLEGVCKND
 PKLSEDSVSVLVLRLCTEALPENRLSRLLHKKHRAEAEASFQGLDVELVYKVKSNHILEKLALSSVDASEQTE
 WQQLVDDAKENLHKIQDDEFVNYCLKAQWITYETTQEMLNIAKTRLLKKEDKTALIYSDGLKEVLRHAHAKLTTF
 YGAFGEKFSGSSWIEFLNNEDDLKDIFLQLKEGNLVCAQYLWLRHRANFESRFDVKMLESLLNSMSASVSLQKL
 CPWFKNDVIPFVRRTVPEGQIILAKWLEQAARNLELTDKANWPENGLQLAEIFFTAEKTDGLASSWHWISLKD
 YQNTTEVCQLRTLNNLRELITLHRKYNCKLALSDFEKENTTIVFRMFDKVLAPELIPSILEKFIIRVYMRHDL
 QEEELLLLYIEDLLNRCSSKSTSLFETAWEAKAMAVIACLSDDTLIFDAVLKIMYAAVVPWSAAVEQLVKQHLE
 DHPKVLLQESYKLMEMKLLRGYGIREVNLLNKEIMRVVRYILKQDVPSSLEDALKVAQAFMLSDDEIYSLRII
 DLIDREQGEDCLLLKSLPPAEAEKTAERVIIWARLALQEEPDSKEGKAWRMSVAKTSVDILKILCDIQKDNLQ
 KKDECEEMKLKFEVASLQENFEVFLSFEDYSNSSLVADLREQHIKAHEVAQAKHKGSTPEPIAAEVRSPSMES
 KLHRQALALQMSKQELEAELTLRALKDGNIKTALKKCSDLFKYHCNADTGKLLFLTQCQKLCQMLADNPVTVPVG
 LNLPSMIHDLASQAATICSPDFLLDALELCKHTLMAVELSRQCQMDDCGILMKASFGTHKDPYEWSYSDFFSED
 GIVLESQMVLFPVIYELISSLVPLAESKRYPLESTSLPYCSLNEGDGLVLPVINSISALLQNLQESSQWELALRFV
 VGSFGTCLQHSVSNFMNATLSEKLFGETTLVKSRHVVMELKEKAVIFIRENATTLHKVFNCRLVDLDLALGYCT
 LLPQKDVFNELWKLIDKAWQNYDKILASLVGSELASLYQEIEMGLKFRELSTDAQWGIRLGKLGISFQPVFRQH
 FLTCKDLIKALVENIDMDTSLILEYCSTFQLDCDAVLQLFIETLLHNTNAGQGQGDASMDSAKRRHPKLLAKALE
 MVPLLTSTKDLVISLSGILHKLDPYDYEMIEVVLKVIERADEKITNININQALSILKHLKSYRRISPVPDLEYQY
 MLEHVITLPSAAQTRLPFHLIFFGTAQNFWKILSTELSEESFTLLLSKLMKFSLDTLVSTAKHVFEKKLKP
 LLKLTQAKSSTLINKEITKITQTIESCILLSIVNPEWAVAIASLAQDIPEGFSFKISALKFCLYLAERWLQNI
 PSQDEKREKAEALLKHLHIQYRRSGTEAVLIAHKLNTEEYLRVIGKPAHLIVSLYEHP SINQRIQNSSGTDY
 PDIAHAAKEIAEVNEINLEKVDMLLEKWLCPSKPGKPSSELFELQEDEALRRVQYLLLSRPIDYSSRMLFV
 FATSTTTT LGMHQLTFAHRTRALQCLFYLDKETIESLFKKPIEEVKSYLRCITFLASFETLNIPITYELFCSSP
 KEGMIKGL WKNHSHESMAVRLVTELCLEYKIYDLQLWNGLLQKLLGFNMIPYLRKV LK

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FIGURE 492

GAGAGACTGGATGGACCCACAAGGGTGACAGCCCAGGCGGACCGATCTTCCCATCCCACATCCTCCGGCGCGATG
CCAAAAAGAGGCTGACGGCAACTGGGCCTTCTGCAGAGAAAGACCTCCGCTTCACTGCCCCGGCTGGTCCCAAGG
GTCAGGAAGATGGATTTCATACCTGCTGATGTGGGGACTGCTCACGTTTCATCATGGTGCCTGGCTGCCAGGCAGAG
CTCTGTGACGATGACCCGCCAGAGATCCCACACGCCACATTCAAAGCCATGGCCTACAAGGAAGGAACCATGTTG
AACTGTGAATGCAAGAGAGGTTTCCGCAGAATAAAAAAGCGGGTCACTCTATATGCTCTGTACAGGAACTCTAGC
CACTCGTCCTGGGACAACCAATGTCAATGCACAAGCTCTGCCACTCGGAACACAACGAAACAAGTGACACCTCAA
CCTGAAGAACAGAAAGAAAGGAAAACACAGAAATGCAAAGTCCAATGCAGCCAGTGGACCAAGCGAGCCTTCCA
GGTCACTGCAGGGAACCTCCACCATGGGAAAATGAAGCCACAGAGAGAATTTATCATTTTCGTGGTGGGGCAGATG
GTTTATTATCAGTGCGTCCAGGGATACAGGGCTCTACACAGAGGTCCTGCTGAGAGCGTCTGCAAAATGACCCAC
GGGAAGACAAGGTGGACCCAGCCCCAGCTCATATGCACAGGTGAAATGGAGACCAGTCAGTTTCCAGGTGAAGAG
AAGCCTCAGGCAAGCCCCGAAGGCCGTCTTGAGAGTGAGACTTCTGCCTCGTCACAACAACAGATTTTCAAATA
CAGACAGAAATGGCTGCAACCATGGAGACGTCCATATTTACAACAGAGTACCAGGTAGCAGTGGCCGGCTGTGTT
TTCTGCTGATCAGCGTCTCTCTCTGAGTGGGCTCACCTGGCAGCGGAGACAGAGGAAGAGTAGAAGAACAATC
TAGAAAAACCAAAAGAACAAGAATTTCTTGGAAGAAGCCGGGAACAGACAACAGAAGTCATGAAGCCCCAAGTGAA
ATCAAAGGTGCTAAATGGTCGCCCAGGAGACATCCGTTGTGCTTGCCTGCGTTTTGGAAGCTCTGAAGTCACATC
ACAGGACACGGGGCAGTGGCAACCTTGTCTCTATGCCAGCTCAGTCCCATCAGAGAGCGAGCGCTACCCACTTCT
AAATAGCAATTTTCGCCGTTGAAGAGGAAGGGCAAAACCACTAGAACTCTCCATCTTATTTTCATGTATATGTGTT
CATTAAAGCATGAATGGTATGGAATCTCTCCACCCTATATGTAGTATAAAGAAAAGTAGGTTTACATTCATCTC
ATTCCAATTTCCAGTTCAGGAGTCCCAAGGAAAGCCCCAGCACTAACGTAAATACACAACACACACTCTACC
CTATACAACTGGACATTGTCTGCGTGGTTCTTTCTCAGCCGCTTCTGACTGCTGATTCTCCCGTTACGTTGCC
TAATAAACATCCTTCAAGAACTCTGGGCTGCTACCCAGAAATCATTTTACCCTTGGCTCAATCCTCTAAGCTAAC
CCCCTTCTACTGAGCCTTCAGTCTTGAATTTCTAAAAACAGAGGCCATGGCAGAATAATCTTTGGGTAACCTCA
AAACGGGGCAGCCAAACCCATGAGGCAATGTCAGGAACAGAAGGATGAATGAGGTCCCAGGCAGAGAATCATACT
TAGCAAAGTTTTACCTGTGCGTTACTAATTGGCCTCTTTAAGAGTTAGTTTCTTTGGGATTGCTATGAATGATAC
CCTGAATTTGGCCTGCACTAATTTGATGTTTACAGGTGGACACACAAGGTGCAAATCAATGCGTACGTTTCTGA
GAAGTGTCTAAAAACACCAAAAGGGATCCGTACATTCAATGTTTATGCAAGGAAGGAAAGAAAGAAGGAAGTGA
AGAGGGAGAAGGGATGGAGGTCACACTGGTAGAACGTAACCACGGAAAAGAGCGCATCAGGCCTGGCACGGTGGC
TCAGGCCTATAACCCAGCTCCCTAGGAGACCAAGGCGGGAGCATCTCTTGAGGCCAGGAGTTTGGAGACCAGCCT
GGGCAGCATAGCAAGACACATCCCTACAAAAAATTAGAAATTGGCTGGATGTGGTGGCATAACGCTGTAGTCCTA
GCCACTCAGGAGGCTGAGGCAGGAGGATTGCTTGAGCCCAGGAGTTCGAGGCTGCAGTCAGTCATGATGGCACCA
CTGCACTCCAGCCTGGGCAACAGAGCAAGATCCTGTCTTTAAGGAAAAAAGACAAGG

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FIGURE 493

MDSYLLMWGLLTFIMVPGCAELCDDDPPEIPHATFKAMAYKEGTM LNCECKRGFRRIKSGSLYMLCTGNSSHSS
WDNQCQCTSSATRNTTKQVTPQPEEQKERKTTEMQSPMQPVDQASLPGHCREPPPWENEATERIYHFVVGQMVYY
QCVQGYRALHRGPAESVCKMTHGKTRWTQPQLICTGEMETSQFPGEEKPQASPEGRPESETSCLVTTTDFQIQTE
MAATMETSIFTTEYQVAVAGCVFLLISVLLLSGLTWQRRQRKSRTI

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FIGURE 494

AGCTCAGCAGGACCTCAGCC**ATG**AGACTTCTCATCCTGGCCCTCCTTGGCATCTGCTCTCTCACTGCATACATTG
TGGAAGGTGTAGGGAGTGAAGTCTCAGATAAGAGGACCTGTGTGAGCCTCACTACCCAGCGACTGCCGGTTAGCA
GAATCAAGACCTACACCATCACGGAAGGCTCCTTGAGAGCAGTAATTTTTATTACCAAACGTGGCCTAAAAGTCT
GTGCTGATCCACAAGCCACATGGGTGAGAGACGTGGTCAGGAGCATGGACAGGAAATCCAACACCAGAAATAACA
TGATCCAGACCAAGCCAACAGGAACCCAGCAATCGACCAATACAGCTGTGACTCTGACTGGCT**AGT**AGTCTCTGG
CACCTGTCCGTCTCCAGCCAGCCAGCTCATTTCACTTTACACGCTCATGGACTGAGTTTATACTCACCTTTTAT
GAAAGCACTGCATGAATAAAATTATTCCTTTGTATTTTTACTTTTAAATGTCTTCTGTATTCACTTATATGTTCT
AATTAATAAATTATTTATTATTAAGAATAGTTCCCTAGTCTATTCAATTATTTAGGGAAAGGTAGTGTATCATT
GTTGTTTGATTTCTGACCTTGACCTCTCTTTGATGGTAACCATAATGGAAGAGATTCTGGCTAGTGTCTATCAG
AGGTGAAAGCTATATCAATCTCTCTTAGAGTCCAGCTTGTAATGGTTCTTTACACATCAGTCACAAGTTACAGCT
GTGACAATGGCAACAATTTGAGATGTATTTCACTTGTCTCTATAATAGAATTCTGTTTATAGAATAAGGGAGAA
AATAATCCAGTCTTCACTGGGTTCCTATTCTGAGGGTCCACTACTCAAAAATTTGCTTCACTCAATTTTTTTCAC
CTCTTTGTGTTTTATTTTGGTGTCTATTAAAGGAATAAAATGACACAACCTTGTCCTTTTTTGTCCCATTAGCA
AAAATTAGAATTTTGGTATAAAGAACTTTATTCAAGTAAAAATCAATACCCTTTGAATTGGACAATAATCTCAC
TACCTTATTAGGATTTCTGTATTTGCCATTACGCTAGTTATCATGCATGTTATGCTTTACTGCGAATAAGCTTTT
AATGCTCCAAATGCTGACCCATGCAATATTTCTCATGTGATCACAATTTGCAGTAAACTTTTAATTAAATGCTC
ATCTGGTAACTCAACACCCAG

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FIGURE 495

MRLILALLGICSLTAYIVEGVGSEVSDKRTCVSLLTQRLPVSRIKTYTITEGSLRAVIFITKRGLKVCADPQAT
WVRDVVRSMRKSNTNRNMIQTKPTGTQQSTNTAVLTG

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FIGURE 496A

ATTGCTAAGCCATCCTTCAGACAGAGAGGGAGCGGCTGCAAGAGGTAATGAGAGATGCAAGAAAGAAGCTGAAA
AAATTTACTACTTTGGAGATTGTGCTCAGTGTTCTTCTGCTTGTGTTGTTTATCATCAGTATTGTTCTAATTGTG
CTTTTAGCCAAAGAGTCACTGAAATCAACAGCCCCAGATCCTGGGACAACTGGTACCCCGGATCCTGGGACAAC
GGTACCCAGATCCTGGAACAACCTGGTACCACACATGCTAGGACAACGGGTCCCCAGATCCTGGAACAACCTGGT
ACCACTCCTGTTTCTGCTGAATGTCCAGTGGTAAATGAATTGGAACGAATTAATTGCATCCCTGACCAGCCGCCA
ACAAAGGCCACATGTGACCAACGTGGCTGTTGCTGGAATCCCCAGGGAGCTGTAAGTGTTCCCTGGTGCTACTAT
TCCAAGAATCATAGCTACCATGTAGAGGGCAACCTTGTCACACAAATGCAGGATTCACAGCCCGGTTGAAAAAT
CTGCCTTCCTCACCAGTGTTTGAAGCAATGTTGACAATGTTCTTCTCACAGCAGAATATCAGACATCTAATCGT
TTCCACTTTAAGTTGACTGACCAAAACCAATAACAGGTTTGAAGTGCCCCACGAACACGTGCAGTCCCTTCAGTGGA
AATGCTGCTGCTTCTTTGACCTACCAAGTTGAAATCTCCAGACAGCCATTTAGCATCAAAGTGACCAGAAGAAGC
AACAATCGTGTTTGTGTTGACTCGAGCATTGGGCCCCCTACTGTTTGTGTCAGCAGTTCTTGACGCTCTCCACTCGA
CTGCCTAGCACTAACGTGTATGGCCTGGGAGAGCATGTGCACCAGCAGTATCGGCATGATATGAATTGGAAGACC
TGGCCCATATTTAACAGAGACACAACCTCCCAATGGAACGGAACATAATTTGTATGGTGCGCAGACATTCTTCTTG
TGCCTTGAAGATGCTAGTGGATTGTCCTTTGGGGTGTTTCTGATGAACAGCAATGCCATGGAGGTTGTCCTTCAG
CCTGCGCCAGCCATCACTTACCGCACCATTGGGGGCATTCTCGACTTCTATGTGTTCTTGGGAAACACTCCAGAG
CAAGTTGTTCAAGAATATCTAGAGCTCATTGGGCGGCCAGCCCTTCCCTCCTACTGGGCGCTTGGATTTACCTC
AGTCGTTACGAATATGGAACCTTAGACAACATGAGGGAAGTCGTGGAGAGAAAATCGCGCAGCACAGCTCCCTTAT
GATGTTTCAGCATGCTGATATTGATTATATGGATGAGAGAAGGGACTTCACTTATGATTTCAGTGGATTTTAAAGGC
TTCCCTGAATTTGTCAACGAGTTACACAATAATGGACAGAAGCTTGTGCATCATTGTGGATCCAGCCATCTCCAAC
AACTCTTCCTCAAGTAAACCTTATGGCCCATATGACAGGGGTTCCGGATATGAAGATATGGGTGAATAGTTTCAGAT
GGAGTGACTCCACTCATTGGGGAGGTCTGGCCTGGACAACTGTGTTTCTGATTATACCAATCCCAACTGTGCT
GTTTGGTGGAACAAGGAATTTGAGCTTTTTTACAATCAAGTAGAGTTTGATGGAATCTGGATTGATATGAATGAA
GTCTCCAACCTTTGTTGATGGTTCGGTCTCAGGATGTTCCACAAACAACCTAAATAATCCCCATTCACTCCCAGA
ATCCTGGATGGGTACCTGTTCTGCAAGACTCTCTGTATGGATGCAGTGCAGCACTGGGGCAAGCAGTATGACATT
CACAATCTGTATGGCTACTCCATGGCGGTCTGCCACAGCAGAAGCTGCCAAGACTGTGTTCCCTAATAAGAGAAGC
TTCATTCTGACCCGTTCTACCTTTGCGGGCTCTGGCAAGTTTGAGCAGCATTGGTTAGGAGACAACACTGCCACC
TGGGATGACCTGAGATGGTCCATCCCTGGCGTGCTTGAGTTCAACCTTTTGGCATCCCAATGGTGGGTCTTGAC
ATATGTGGCTTTGCTTTGGACACCCCTGAGGAGCTCTGTAGGCGGTGGATGCAGTTGGGTGCATTTTATCCGTTT
TCTAGAAATCACAATGGCCAAGGCTACAAGGACCAGGATCCTGCCTCCTTTGGAGCTGACTCCCTGCTGTTGAAT
TCCTCCAGGCACTACCTTAACATCCGCTATACTCTATTGGCCCTACCTATACACCCCTTTCTTCCGTGCTCACAGC
CGAGGGGACACGGTGGCCAGGCCCTTTTGCATGAGTTCTACGAGGACAACAGCACTGGGATGTGCACCAACAG
TTCTTATGGGGGCCCCGGCTCCTCATCACTCCAGTTCTGGATGAAGGTGCAGAGAAAAGCGATGGCATATGTGCCT
GATGCTGTCTGGTATGACTACGAGACTGGGAGCCAAGTGAGATGGAGGAAGCAAAAAGTCGAGATGGAACCTCCT
GGAGACAAAATTGGACTTCACCTTCGAGGAGGCTACATCTTCCCCACACAGCAGCCAAATACAACCACTCTGGCC
AGTCGAAAGAACCCTCTTGCTTTATCATTGCCCTAGATGAGAACAAGAAAGCAAAAAGGAGAACCTTTTCTGGGAT
GATGGGGAAACGAAGGATACTGTGGCCAATAAAGTGTATCTTTTATGTGAGTTTCTGTCACTCAAACCGCTTG
GAGGTGAATATTTACAATCAACCTACAAGGACCCCAATAATTTAGCATTTAATGAGATTAATAATTCTTGGGACG
GAGGAACCTAGCAATGTTACAGTGAAACACAATGGTGTCCCAAGTCAGACTTCTCCTACAGTCACTTATGATTCT
AACCTGAAGGTTGCCATTATCACAGATATTGATCTTCTCCTGGGAGAAGCATACACAGTGAATGGAGCATAAAG
ATAAGGGATGAAGAAAAAATAGACTGTTACCTGATGAGAATGGTGCTTCTGCCGAAAACCTGCACTGCCCGTGGC
TGTATCTGGGAGGCATCCAATTCTTCTGGAGTCCCTTTTGTCTATTTTGTCAACGACCTATACTCTGTCTAGTGAT
GTTTCACTATAATTCCCATGGGGCCACAGCTGACATCTCCTTAAAGTCTTCCGTTTATGCCAATGCCTTCCCTTCC
ACACCCGTGAACCCCTTCGCTGGATGTCACCTACCATAAGAATGAAATGCCGCAGTTCAAGATTTATGATCCC
AACAAGAATCGGTATGAAGTTCCAGTCCCTCTGAACATACCCAGCATGCCATCCAGCACCCCTGAGGGTCAACTC
TATGATGTGCTCATTAAGAAGAATCCATTTGGGATTGAAATTCGCCGGAAGAGTATAGGCACTATAATTGGGAC
TCTCAGCTCCTTGGCTTTACCTTCAGTGACATGTTTATCCGCATCTCCACCCGCTTCCCTCCAAGTACCTCTAT
GGCTTCGGGGAACTGAGCACAGGTCTATAGGAGAGACTTGGAGTGGCACACTTGGGGGATGTTCTCCCGAGAC
CAGCCCCCAGGGTACAAGAAGAATTCCTATGGTGTCCACCCCTACTACATGGGGCTGGAGGAGGACGGCAGTGCC

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FIGURE 496B

CATGGAGTGCTCCTGCTGAACAGCAATGCCATGGATGTGACGTTCCAGCCCCCTGCCTGCCTTGACATACCGCACC
ACAGGGGGAGTTCTGGACTTTTATGTGTTCTTGGGGCCGACTCCAGAGCTTGTCACCCAGCAGTACACTGAGTTG
ATTGGCCGGCCTGTGATGGTACCTTACTGGTCTTTGGGGTTCCAGCTGTGTGCTATGGCTACCAGAATGACTCT
GAGATCGCCAGCTTGTATGATGAGATGGTGGCTGCCAGATCCCTTATGATGTGCAGTACTCAGACATCGACTAC
ATGGAGCGGCAGCTGGACTTCACCTCAGCCCCAAGTTTGTGTTTCCAGCTCTGATCAATCGCATGAAGGCT
GATGGGATGCGGGTCATCCTCATTCTGGATCCAGCCATTTCTGGCAATGAGACACAGCCTTATCCTGCCTTCACT
CGGGGCGTGGAGGATGACGTCTTCATCAAATACCCAAATGATGGAGACATTGTCTGGGGAAAGGTCTGGCCTGAT
TTTCCTGATGTTGTTGTGAATGGGTCTCTAGACTGGGACAGCCAAGTGGAGCTATATCGAGCTTATGTGGCCTTC
CCAGACTTTTTCCGTAATTCAACTGCCAAGTGGTGAAGAGGGAAATAGAAGAACTATAACAATCCACAGAAT
CCAGAGAGGAGCTTGAAGTTTGTGATGGCATGTGGATTGATATGAATGAACCATCAAGCTTCGTGAATGGGGCAGTT
TCTCCAGGCTGCAGGGACGCCTCTCTGAACCACCCTCCCTACATGCCACATTTGGAGTCCAGGGACAGGGGCCTG
AGCAGCAAGACCCTTTGTATGGAGAGTCAGCAGATCCTCCCAGACGGCTCCCTGGTGCAGCACTACAACGTGCAC
AACCTGTATGGGTGGTCCAGACCAGACCCACATACGAAGCCGTGCAGGAGGTGACGGGACAGCGAGGGGTGCTC
ATCACCCGCTCCACATTTCCCTCTTCTGGCCGCTGGGCAGGACATTGGCTGGGAGACAACACGGCCGCATGGGAT
CAGCTGAAGAAGTCTATCATTGGCATGACGGAGTTCAGCCTCTTCGGCATATCCTATACGGGAGCAGATATCTGT
GGGTTCTTTCAAGATGCTGAATATGAGATGTGTGTTTCGCTGGATGCAGCTGGGGGCCTTTTACCCCTTCTCAAGA
AACCACAACACCATTGGGACCAGGAGACAAGACCCTGTGTCTGGGATGTTGCTTTTGTGAATATTTCCAGAACT
GTCCTGCAGACCAGATGCACCCTGTTGCCATATCTGTATACCTTGATGCATAAGGCCACACGGAGGGCGTCACT
GTTGTGCGGCCTCTGCTCCATGAATTTGTGTGACAGCAGGTGACATGGGACATAGACAGTCAGTTTCTGCTGGGC
CCAGCCTTCTGGTTCAGCCCTGTCCTGGAGCGTAATGCCAGAAATGTCACTGCATATTTCCCTAGAGCCCGCTGG
TATGATTACTACACGGGTGTGGATATTAATGCAAGAGGAGAGTGAAGACCTTGCCAGCCCTCTTGACCACATT
AATCTTCATGTCCGTGGGGGCTACATCCTGCCCTGGCAAGAGCCTGCACTGAACACCCACTTAAGCCGCCAGAAA
TTCATGGGCTTCAAAATTGCCTTGGATGATGAAGAACTGCTGGGGGCTGGCTCTTCTGGGATGATGGGCAAAGC
ATTGATACCTATGGGAAAGGACTCTATTACTTGGCCAGCTTTTCTGCCAGCCAGAATACGATGCAAAGCCATATA
ATTTTCAACAATTACATCACTGGTACAAATCCTTTGAACTGGGCTACATTGAAATCTGGGGAGTGGGCAGTGTC
CCCGTTACCAGTGCCAGCATCTCTGTGAGTGGCATGGTCATAACACCCTCCTTCAACAATGACCCACGACACAG
GTATTAAGCATCGATGTGACTGACAGAAACATCAGCCTACATAATTTTACTTCATTGACGTGGATAAGCACTCTG
TGAATTTTTTACAGCAAGATTCTAACTAACTATGAATGACTTTGAACTACTTATACTTCATACTCATAAAAATTA
TTGTGTGTTGCTAATTTGTTTCATACCCACTATTGGTGAAATATTTCTGTAAATTTTGTATATGTTTTTGTGTG
AACCTTAAAGGTTAAACCTTAGCCCTGTGGGATAGGCAGTTAGGGAGGTGTGGAAAATCTATGCATTACCTTAAT
GTCTCTGTGTGGTTAGTATGGTAGTGACTGTTTCATCATATGACATTTTACTGAAGATGAAGTGGGTCCATGATGAA
GTGTGTGATGTCCACGTTTGTAAATCATAGAATGGACCCATTCTTTTGTAAATACACAAGAGAAAGCTTTCTG
TGACAGTTCCAGGTCTTGAAGCTAATCAGCATCTCAAGAAAGTATCCAGAAAGAACATCTGCTAGTTGGTTATAG
GCGGTGGGAGGAATAATATACCTAATTGGTTATAGGTGGGGGAGCATGATAAGCAAAGAAAAGGCAAACACAAG
GAAAGATCAGATGAAACAGAAGATGATAGTAAAAGTGATCCTAAGTAAGAACATAATGTAAAATTGTCAGCAGCC
TCATGGGGAGGAAAAAGGAAGAGTCAACTCACTTGAAGAAGAGGGTCTTGAGAAATCCTTAGCATAAAGGGCTAC
TGGTGAGATTGAGATCTGAGCAGGCAAAGCTCAAAGAGAGTTTGGAGGTTAAAAATAATTTATTTTGCAGTAG
TGTGCTTTGAAATGTGTAAATCTTATTTCTAATGTATACAACCACATTTACATAAAAAATATGCAATTTATATGC
CAGATAAAAAATAAAACAAGTGAATTTGCAAGTGAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 497

MARKKLKKFTTLEIVLSVLLLVLFIISIVLIVLLAKESLKSTAPDPGTTGTPDPGTTGTPDPGTTGTTHARTTGP
PDPGTTGTTTPVSAECPVVNELERINCIPDQPPTKATCDQRGCCWNPQGAVSVPWCCYYSKNHSHVEGNLVNTNAG
FTARLKNLPSSPVFGSNVDNVLLTAEQTSNRHFHKLTDQTNRRFEVPHEHVQSFSGNAAASLTQVEISRQPF
IKVTRRSNNRVLFDSSIGPLLFADQFLQLSTRLPSTNVYGLGEHVHQYRHDMMNWKTPIFNRDTPNGNGTNLY
GAQTFFLCLEDASGLSFGVFLMNSNAMEVVLQAPAITYRTIGGILDYFVFLGNTPEQVVQEYLELIGRPALPSY
WALGFHLSRYEYGTLDNMREVVERNRAAQLPYDVQHADIDYMDERRDFTYDSVDFKGFPEFVNELHNNQKLVII
VDPAISNNSSSSKPYGPYDRGSDMKIWNSSDGVTPPLIGEVWPGQTVFPDYTNPNCAVWWTKFELFHNQVEFDG
IWIDMNEVSNFVDGSGVSGCSTNNLNNPFTPRILDGYLFCKTLCMDAVQHWGKQYDIHNLYGYSMATAEAAKT
VFPNKRSLILTRSTFAGSGKFAAHWLGDNATWDDLRSIPGVLEFNLFGIPMVGPDICGFALDTPPELCRRWMQ
LGAFFPFSRNHNQGYKDQDPASFGADSLNLSRHYLNIRYTLPLPYLYTLFFRAHSRGDTVARPLLHEFYEDNS
TWDVHQQLWGPGLLITPVLDEGAEKAMAYVPDAVWYDYETGSQVRWRKQKVEMLPGDKIGLHLRGYIFPTQQ
PNTTTLASRKNPLGLIIALDENKEAKGELFWDDGETKDTVANKVYLLCEFSVTQNRLEVNISQSTYKDPNNLAFN
EIKILGTEEPSNVTVKHNGVPSQTSPTVTYDSNLKVAIITDIDLLLGEAYTVEWSIKIRDEEKIDCYPDENGASA
ENCTARGCIWEASNSSGVPPFCYFVNDLYSVSDVQYNHSHGATADISLKSSVYANAFPSTPVNPLRLDVTYHKNEMP
QFKIYDPNKNRYEVPVPLNIPSMPSSTPEGQLYDVLIKKNPFGIEIRRSIGTIIWDSQLLGFTFSDMFIRISTR
LPSKYLYGFGETEHRSYRRDLEWHTWGMFSRDQPPGYKKNYSYGVHPYMGLEEDGSAHGVLLNSNAMDVTFQPL
PALTYRTTGGVLDYFVFLGPTPELVTQQYTELIGRPVMVPYWSLGFQLCRYGYQNDSEIASLYDEMVAQIPYDV
QYSDIDYMERQLDFTLSPKFAGFPALINRMKADGMRVILILDPAISGNETQPYPAFTRGVEDDVFIKYPNDGDIV
WGKVWPDFPDVVVNGSLDWDQSVELYRAYVAFPDFFRNSTAKWWKREIEELYNNPQNPERSLKFDGMWIDMNEPS
SFVNGAVSPGCRDASLNHPYMPHLESRDRLSSKTLCMESQQILPDGSLVQHYNVHNLYGWSQTRPTYEAVQEV
TGQRGVVITRSTFPSSGRWAGHWLGDNATAAWDQLKKSIIIGMTEFSLFGISYTGADICGFFQDAEYEMCVRWMQLG
AFYFPFSRNHNTIGTRRQDPVSWDAFVNISRTVLQTRCTLLPYLYTLMHKAHTEGTVVRPLLHEFVSDQVTWDI
DSQFLLGPAFLVSPVLERNARNVTAYFPRARWYDYTGVDINARGEWKTLPAPLDHINLHVRRGGYILPWQEPALN
THLSRQKFMGFKIALDDEGTAGGWLFWDDGQSIDTYGKGLYYLASFSASQNTMQSHIIFNNYITGTNPLKLGYYE
IWGVGSVPVTSASISVSGMVIIPSFNNDPPTQVLSIDVTDNRNLSLHNFTSLTWISTL

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FIGURE 498

CGATCCTGCCGAGCCCCGCCGCCGGCTTGGAATTCTGAAACCTTCCTTGTATCCCTCCTGAGACATCTTTGC
TGCAAGATCGAGGCTGTCTCTGGTGAGAAGGTGGTGAGGCTTCCCGTCATATTCCAGCTCTGAACAGCAAC**ATG**

GGGTGCAAAGTCCTGCTCAACATTGGGCAGCAGATGCTGCGGCGGAAGGTGGTGGACTGTAGCCGGGAGGAGACG
CGGCTGTCTCGCTGCCTGAACACTTTTGATCTGGTGGCCCTCGGGGTGGGCAGCACACTGGGTGCTGGTGTCTAC
GTCCTGGCTGGAGCTGTGGCCCGTGAGAATGCAGGCCCTGCCATTGTTCATCTCCTTCCTGATCGCTGCGCTGGCC
TCAGTGCTGGCTGGCCTGTGCTATGGCGAGTTTGGTGCTCGGGTCCCCAAGACGGGCTCAGCTTACCTCTACAGC
TATGTCACCGTTGGAGAGCTCTGGGCCTTCATCACCGGCTGGAACCTAATCCTCTCCTACATCATCGGTACTTCA
AGCGTAGCGAGGGCCTGGAGCGCCACCTTCGACGAGCTGATAGGCAGACCCATCGGGGAGTTCTCACGGACACAC
ATGACTCTGAACGCCCCCGGCGTGCTGGCTGAAAACCCCGACATATTGCGAGTGATCATAATTCTCATCTTGACA
GGACTTTTAACTCTTGGTGTGAAAGAGTCGGCCATGGTCAACAAAATATTCACTTGTATTAAACGTCCTGGTCCTG
GGCTTCATAATGGTGTGAGGATTTGTGAAAGGATCGGTTAAAACTGGCAGCTCACGGAGGAGGATTTTGGAAC
ACATCAGGCCGTCTCTGTTTGAACAATGACACAAAAGAAGGGAAGCCCGGTGTGGTGGATTTCATGCCCTTCGGG
TTCCTCTGGTGTCTGTGCGGGGCGAGCGACTTGCTTCTATGCCTTCGTGGGCTTTGACTGCATCGCCACCACAGGT
GAAGAGGTGAAGAACCACAGAAGGCCATCCCCGTGGGGATCGTGCGCTCCCTCTTGATCTGCTTCATCGCCTAC
TTTGGGGTGTGCGCTGCCCTCACGCTCATGATGCCCTACTTCTGCCTGGACAATAACAGCCCCCTGCCCGAGGCC
TTTAAGCACGTGGGCTGGGAAGGTGCCAAGTACGCAGTGCCGTGGGCTCCCTCTGCGCTCTTTCCGCCAGTCTT
CTAGGTTCCATGTTTCCCATGCCTCGGGTTATCTATGCCATGGCTGAGGATGGACTGCTATTTAAATTCTTAGCC
AACGTCAATGATAGGACCAAAACACCAATAATCGCCACATTAGCCTCGGGTGCCGTTGCTGCTGTGATGGCCTTC
CTCTTTGACCTGAAGGACTTGTTGGACCTCATGTCCATTGGCACTCTCCTGGCTTACTCGTTGGTGGCTGCCTGT
GTGTTGGTCTTACGGTACCAGCCAGAGCAGCCTAACCTGGTATACCAGATGGCCAGTACTTCCGACGAGTTAGAT
CCAGCAGACCAAAATGAATTGGCAAGCACCAATGATTCCAGCTGGGGTTTTTACCAGAGGCAGAGATGTTCTCT
TTGAAAACCATACTCTCACCCAAAAACATGGAGCCTTCCAAAATCTCTGGGCTAATTGTGAACATTTCAACCAGC
CTTATAGCTGTTCTCATCATCACCTTCTGCATTGTGACCGTGCTTGGAAGGGAGGCTCTCACCAAGGGGCGCTG
TGGGCAGTCTTTCTGCTCGCAGGGTCTGCCCTCCTCTGTGCCGTGGTCACGGGCGTCATCTGGAGGCAGCCCGAG
AGCAAGACCAAGCTCTCATTTAAGGTTCCCTTCCTGCCAGTGCTCCCCATCCTGAGCATCTTCGTGAACGTCTAT
CTCATGATGCAGCTGGACCAGGGCACCTGGGTCCGGTTTGCTGTGTGGATGCTGATAGGCTTCATCATCTACTTT
GGCTATGGCCTGTGGCACAGCGAGGAGGCGTCCCTGGATGCCGACCAAGCAAGGACTCCTGACGGCAACTTGAC
CAGTGCAAG**TGA**CGCACAGCCCCGCCCCCGGAGGTGGCAGCAGCCCCGAGGGACGCCCCAGAGGACCGGGAGG
CACCCACCCCTCCCCACCAGTGCAACAGAAACCACCTGCGTCCACACCCCTCACTGCA

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FIGURE 499

MGCKVLLNIGQQMLRRKVVDCSREETRLSRCLNTFDLVALGVGSTLGAGVYVLAGAVARENAGPAIVISFLIAAL
ASVLAGLCYGEFGARVPKTGSAYLYSYVTVGELWAFITGWNILSYIIGTSSVARAWSATFDELIGRPIGEFSRT
HMTLNAPGVLAENPDIFAVIIILILTGLLTGKESAMVNKIFTCINVLVLGFIMVSGFVKGSVKNWQLTEEDFG
NTSGRLCLNNDTKEGKPGVGGFMPFGFSGVLGAATCFYAFVGFDCAITTGEEVKNPQKAIPVGIVASLLICFIA
YFGVSAALTLMMPYFCLDNNPLPDAFKHVGWEGAKYAVAVGSLCALSASLLGSMFPMPRVIYAMAEDGLLFKFL
ANVNDRTKTPIIATLASGAVAAVMAFLDLKDLVDLMSIGTLLAYSLVAACVLVRLRYQPEQPNLVYQMASTSDEL
DPADQNELASTNDSQLGFLPEAEMFSLKTI LSPKNMEPSKISGLIVNISTSLI AVLIIITFCIVTVLGREALTKGA
LWAVFLLAGSALLCAVVTGVIWRQPESKTKLSFKVPFLPVLPILSIFVNVYLMMLDQGTWVRFAVWMLIGFIIY
FGYGLWHSEEASLDADQARTPDGNLDQCK

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FIGURE 500

GTTCCTCAGGCTCTTGCGGTGAAGGTCAGAGTCAGACCTGAGACCACTGCTCACCGACTTCAGACTCCAGTTTA
TCTGTGCCCCAGCTTCCTCACTTAGTCTCAGAAGACTTAGGCTGAGGCCCTCAGAAGGAGATCTCCATCCTTTGT
CAGAGCAGAAACAGGATGCCCATGTCCCAGGAATCATTGACCTTCAAGGACGTGTTTGTGGACTTCACCTGGAGG
AGTGGCAGCAACTGGACTCTGCCAGAAGAACCTCTACAGGGATGTCATGCTTGAGAACTACAGCCACCTGGTGT
CCGTGGGGTATCTAGTTGCGAAGCCTGATGTGATCTTCAGGTTGGGACCAGGTGGAGAGTCTGGATGGCAGATG
GGGGGACCCCGGTACGGACCTGTGCAGAAGTCTGGCAAGTTGATGAGCAGATAGATCACTACAAGGAAAGCCAAG
ACAACTTCCTTGGAAGCTGCATTCATAGGCAAGGAAACACTGAAGGATGAAAGCGGTCAAGAATCCAGAACAT
GTAGAAAAAGCATTATCTGAGCACAGAATTTGATTCTGTAAGGCAAAGACTCCCTAAATATTATTCGTGGGAAA
AGGCATTCAAAACATCATTTAACTTTCTTGGTCAAAATGGAAGCTATGTAAGAAAGAAAGATGATGGATGTAAA
GCATATTGGAAAGTATGCTTCCATTATAATCTTCATAAAGCTCAACCTGCAGAGAGATTTTTTGACCCTAATCAA
CGAGGGAAAGCCCTCCACCAAAGCAAGCCCTTAGAAAAAGTCAGAGAAGTCAAAGTGGGGAGAACTCTACAAA
TGTAATGAATGTGGAAAAGTGTATCCAGAAAGCAAACCTTAGTTGTACATCAAAGAACTCACACCGGAGAGAAA
CCTTATGAATGCTGCGAATGTGCAAAAGCCTTCAGCCAGAAGTCAACCCCTCATAGCACACCAGAGAACTCACACA
GGGGAGAAAGCCCTATGAATGCAGTGAATGTGGAAAAACCTTTATCCAGAAGTCAACTCTGATTAAACATAAGAAA
ATTATATGAGAGAGACCCCTATAAATGCAGTGTCTGTGAGAAAGCCTTCAGTAGGAAGTCAACTCTCATTAAAC
ATCAGATAATTATATGAGAGAAACCTTATGAATGTAATAAATGTGGGAAATCTTTTAGTGTTAAATCAACTCTC
ATTGTATGTCACAGAACATAAATGCATAAGTTGCATGCTATTGTGAATAGTGTGATGAAATTTTGCAGTGTCTGT
CTCTTTCCTGCTCAGGATGCAAATCAGTGAATCTTTTTTTTTTTTTTTTTTTTGGAGACAGAGTCTTGCTCTGT
CCAACTGGAGTGCAGTGGCACAATCTTGGCTCACTGCAACCTCCGCCTCTTGGGTTCAACCGATTCTCCTGCCT
CAACCTCCCAAATAGTTGGGATTACAGGCACATGCCACCATACGCAGCTAATTTGTATTTTAGTAGAGACAGGG
TTTACCATGTTGGCCAGCCTGGTCTTGAACCTCTGACCTCAAGTGTATCCGCCTGCCTCAGCCTCCCAAAGTGCT
GGGATTACAGGCATGAGCCACTGCACCCGGCTTGAATCATCCTTTTGTCCAGTATTATATCCATGCTGTATATGC
TACCCGCCCACTAGTCCCTTAGCTGTCTCAGTTGTCAGATTGACTGTCATGGGATTGCAGTGTCTGCATTAAAGC
TACCCTTATTGTATAATGACCCCAAAGTGCAAGAGTAGTGATGTTGGCAATTTGCATACACCAAAAATAAGTTAT
AAAGTGCTTCCTTAAAGTGAATGGTTAAAGTTCTTGACTTAATAAAGAAAAAAATGTATGCTGAGGTTGTAA
GATTTACAGTAAGAATGAATCTTCTATCCAGAAATTGTGAAGGAGGAAAAAGAACTTGTGCTAGTTTTGCTGTC
ACATCTGAACTGCAAAAGTTGTGGCCACAGTGCATCATAAGTGCTAAGACGAAAAAGACATTAAATTTGCGGAT
GGAAGGCGTGAATAGAAATGGGTTCTGACAGCAATCAGGTTCCGTACTATTACAGTTTCAGGCATCCGCTAGGG
ATCTTGGAACATATCCCCATGGATAAGGGAGGGGTACTGTACCTTGTATATTGTGCATTAAAGAATTCATTGA
GTGTAATCATGTAAGTCTAACACACATTTAAAAAGCTCTCAGATATCATTTCGCCTTCGGTTGATGTAAGAAAT
TCAAAGCTACTCAAATCATTCAATAAATGATAAAATTATTTAAAAA

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FIGURE 501

MAMSQESLTFKDVFDFTLEEWQQQLDSAQKNLYRDVMLENYSHLVSVGYLVAKPDVIFRLGPGGESWMADGGTPV
RTCAEVWQVDEQIDHYKESQDKLPWQAAFIGKETLKDESGQESRTCRKSIYLSTEFDSVRQRLPKYYSWEKAFKT
SFKLSWSKWLCKKER

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FIGURE 502

AACACATTTTCATCTGGGCTTCTTAAATCTAAATCTTTAAATGACTAAGTTTTCTTCCTTTTCTCTGTTTTTCCT
AATAGTTGGGGCTTATATGACTCATGTGTGTTTCAATATGGAAATTATTGGAGGGAAAGAAGTGTCACCTCATTC
CAGGCCATTTATGGCCTCCATCCAGTATGGCGGACATCACGTTTGTGGAGGTGTTCTGATTGATCCACAGTGGGT
GCTGACAGCAGCCCACTGCCAATATCGGTTTACCAAAGGCCAGTCTCCCACTGTGGTTTTAGGCGCACACTCTCT
CTCAAAGAATGAGGCCTCCAAACAAACACTGGAGATCAAAAAATTTATACCATTTCTCAAGAGTTACATCAGATCC
TCAATCAAATGATATCATGCTGGTTAAGCTTCAAACAGCCGCAAACTCAATAAACATGTCAAGATGCTCCACAT
AAGATCCAAAACCTCTCTTAGATCTGGAACCAAATGCAAGGTTACTGGCTGGGGAGCCACCGATCCAGATTCATT
AAGACCTTCTGACACCCTGCGAGAAGTCACTGTTACTGTCCTAAGTCGAAAACTTTGCAACAGCCAAAGTTACTA
CAACGGCGACCCTTTTATCACCAAAGACATGGTCTGTGCAGGAGATGCCAAAGGCCAGAAGGATTCCTGTAAGGG
TGAATCAGGGGGCCCCCTTGATCTGTAAAGGTGCTTCCACGCTATAGTCTCTGGAGGTCATGAATGTGGTGTGTC
CACAAAGCCTGGAATCTACACCCTGTAAACCAAGAAATACCAGACTTGGATCAAAAGCAACCTTGTCCCGCCTCA
TACAAATTAAGTTACAAATAATTTTATTGGATGCACTTGCTTCTTTTTTCTTAATATGCTCGCAGGTAGAGTTG
GGTGTAAGTAAAGCAGAGCACATATGGGGTCCATTTTTTGCACTTGTAAGTCATTTTATTAAGGAATCAAGTTCTT
TTTCACTTGTATCACTGATGTATTTCTACCATGCTGGTTTTATTCTAAATAAAATTTAGAAGACT

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FIGURE 503

MTKFSSFLFFLIVGAYMTHVCFNMEI IGGKEVSPHSRPFMASIQYGGHHVCGGVLIDPQWVLTAAHQCQYRFTKG
QSPTVVLGAHSLSKNEASKQTLEIKKFIPFSRVTS DPQSNDIMLVKLQTA AKLNKHVKMLHIRSKTSLRSGTKCK
VTGWGATDPDSL RPSDTLREVTVTVLSRKLCNSQSYNGDPFITKDMVCAGDAKGQKDSCKGDSGGPLICKGVFH
AIVSGGHECGVATKPGIYTLLTKKYQTWIKSNLVPPHTN

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FIGURE 504

GGACAGCACAGCTGACAGCCGTGCTCAGAAAGTTTCTGGATCCCAGGCTCATCTCCACAGAGGAGAACACGCAGG
CAGCAGAGACC**ATG**GGGCCCCATCTCAGCCCCTTCTGCAGATGGCGCATCCCCTGGCAGGGGGCTCCTGCTCACAG
CCTCACTTTTACCTTCTGGAACCCGCCACCCTGCTCAGCTCACTATTGAAGCTGTGCCATCCAATGCTGCAG
AGGGGAAGGAGGTTCTTCTACTTGTCCACAATCTGCCCCAGGACCCTCGTGGCTACAACGGTACAAAGGGGAAA
CAGTGGATGCCAACCGTCGAATTATAGGATATGTAATATCAAATCAACAGATTACCCAGGGCCTGCATACAGCA
ATCGAGAGACAATATACCCCAATGCATCCCTGCTGATGCGGAACGTCACCAGAAATGACACAGGATCCTACACCC
TACAAGTCATAAAGCTAAATCTTATGAGTGAAGAAGTAACTGGCCAGTTCAGCGTACATCCGGAGACTCCCAAGC
CCTCCATCTCCAGCAACAACCTCCAACCCCGTGGAGGACAAGGATGCTGTGGCCTTCACCTGTGAACCTGAGACTC
AGAACACAACCTACCTGTGGTGGGTAAATGGTCAGAGTCTCCCGGTCAGTCCCAGGCTGCAGCTGTCCAATGGCA
ACAGGACCCTCACTCTACTCAGTGTCAAGGAATGACGTAGGACCCTATGAATGTGAAATACAGAACCCAGCGA
GTGCAAACCTTCAGTGACCCAGTCACCCTGAATGTCTCTATGGCCAGATGCCCCACCATTTCCTTCAGACA
CCTATTACCATGCAGGGGTAAATCTCAACCTCTCTGCCATGCGGCCTCTAATCCACCTCACAGTATTCTTGGT
CTGTCAATGGCACATTCCAGCAATACACACAAAAGCTCTTTATCCCCAACATCACTACAAAGAACAGCGGATCCT
ATGCCTGCCACACCACTAACTCAGCCACTGGCCGCAACAGGACCACAGTCAGGATGATCACAGTCTCTGATGCTG
TAGTACAAGGAAGTTCTCCTGGCCTCTCAGCTAGAGCCACTGTGAGCATCATGATTGGAGTACTGGCCAGGGTGG
CTCTGATAT**TAG**TAGCTCTGGTGTAGTTTCTGCATTTCAAGAAGACTGGCAGACAGTTGTTTTATTCTTCCTCAA
AGCATTTGCAATCAGCTACCATTCAAATTTGCTTCTTCTTCAAGATTTATGGAAAATACTCTGACGAGTACTCTT
GAACACAAGTTTCTGATACTTTAAGATCACGCCACTGGACTGTCTATGAACCTTGCAAACAGGCTGATACCTTTG
TGAAGTTGCCACCAAAACACAGAAGGAAAAAACATGAATTTCAATTGAACATAATAATGAGGATAATGTTT
TTAAGATTTTTTTTTTTTTTTTTTTTTTGGAGATGGAATCTCGCTCTGTGCGCCAGGCTGGAGTGCAGTGGCACGATC
TCAACTCACTGCAACGTCCGCCTCCTGGGTTCACACCATTCTCCTGCCTCAGCCTCCTGAGTAGCTGGGACTACA
GGCGCCTGCCACAACGCCCGGCTAATTTTTTGTATTTTTTAGTAGAGACGGGGTTTCACTGTGGTCTCAATCTCCT
GACTTCATGGTCCGCCTGCCTCAGCCTCCCAAAGTTCTGGGATTACAGGTGTGAGCCACCGCGCCAGCCCGTTT
TTAAGATTTTTTATTTGAAAAATTGCCAATTTCTTTAAGTGTCTTTCTTTTTCAGATTTATGAATTTCTTTATCTTT
TAAGCTATCTATACCTTACTGCAATTTGGTAAAGCAGACTTTTGTGAACAAAAATTATAACATTTACTTTTGCTC
CCTACCTGACTGCCACAGAACTGGGCAACTATTCATGAGTATTCATATGTTTATGGTAATTCAGTTATTTGCACA
AGTTCAGTGAGAATCTGCTGTCTTTATAATGGGATATAGTTTAAACATTGGTTATATTACCAAGGCTTTGATTG
GGATGTTATATTTGAGAAAATACAGAGAATGATAGATTAACGGAGTGTCTAATCTATCGTGTCAACCCCAATTT
TTACGTATGAGATCCTTTAGTCCACCCAATGGCTGACAGTAACAGCATCTTTAACACAACCTTTTGTTCAAATGT
ACTATGGTCTCTTTTAGAGTCAGACTCCTAGACTCACTTGTTCTCACTGTCTGTTTTAATTTAACCCAGGCATGC
AATGCTAGATAATAAAATTGCTCCCTATTGGCTGATC

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FIGURE 505

MGPISAPSCRWRIPWQGLLLTASLFTFWNPPTTAQLTIEAVPSNAAEGKEVLLL VHNLPQDPRGYNWYKGETVDA
NRRIGYVISNQQITPGPAYSNRETIYPNASLLMRNVTRNDTGSYTLQVIKLNLMSEEV TGQFSVHPETPKPSIS
SNNSNPVEDKDAVAFTCEPETQNTTYLWWVNGQSLPVSPRLQLSNGNRTL TLLSVTRNDVGPYECEIQNPASANF
SDPVT LNVLYGPDAPTISP SDTYHAGVNLNLSCHAASNPPSQYSWSVNGTFQQYTQKLFIPNITTKNSGSYACH
TTNSATGRNRRTTVRMITVSDAVVQGSSPGLSARATVSIMIGVLARVALI

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FIGURE 506

CGCAAGAATGCATACAAACTCCAGGGCTGCTCTCTCTCTGGAGAGGGAGGGAGGGGATTTAAAAACCTGCAGCAAC
ATGGGGGAGGAGGCTGTTTGTCTTCTCTCTCTGGGGAAGTAACCTCGCTCAAACCTGCCTTCCTTGCTGAGCTGCT
TCGCGTAGCTTTGAGGAAGGTCTAGTGAAATTGGTCTTTCCATTACATCTGGATGTACTACCAGAGAGTTCTGCT
GCTGTTGTTTTTTTTTAGCTTTTCTTTCTTTGAGTCTTTAAAGGGCAATTGTGACACTCTGCAAACATACCGATT
TGTTGTCTGCCCACCTTTGGAGTCTTCAATCTGGGCAGTAACTATTTACCCTTTTTCTGCTAGCCTGTCCCCCTC
TCTGGATTGAAGTCACCTGCTAAGACAATGGACTACCGACCAGACTCCCGGAAATCATGTTGGTAGGATCCCAGT
CTTTTTTCGCTGGAGGGCCCAATGGGATCATTAGAAGCCAGTCCTTTGCGGGTTTCAGCGGCCTCCAGGAAAGGC
GATCCAGGTGTAACCTCCTTCATTGAAAATTCCTCCGCTCTCAAGAAGCCTCAGGCCAAACTGAAGAAAATGCACA
ATTTAGGCCACAAAAACAACATCCCCCAAAGAGCCTCAGCCTAAAAGGGTGGAAGAAGTCTACAGGGCCTTGA
AAAATGGACTTGATGAATATCTGGAGGTTACCAGACGGAGCTGGACAAGTTGACAGCTCAGTTAAAAGATATGA
AAAGAACTCTCGCCTGGGTGTACTGTATGACCTAGACAAGCAAATTAACAATGAAAGATACATGAGACGCC
TGGAGTTTTATATAAGTAAGGTAGATGAACTCTATGAAGCTTATTGTATCCAGCGACGCCTCCAGGATGGTGCCA
GCAAAATGAAGCAAGCCTTCGCAACATCCCCTGCCAGCAAAGCTGCCCGGGAGAGTCTGACAGAGATCAATCGGA
GCTTCAAGGAGTACACAGAGAATATGTGCACCATTTGAAGTGGAGCTAGAGAATCTGCTGGGAGAATTCTCCATCA
AGATGAAAGGTCTGGCTGGCTTTGCACGCCTCTGTCTCTGGAGATCAATATGAAATTTTCATGAAGTATGGCCGGC
AGCGGTGGAACCTGAAAGGCAAAATAGAAGTAAATGGCAAGCAGAGCTGGGATGGAGAAGAAACAGTTTTTCTGC
CCCTGATAGTTGGGTTTCATCTCCATCAAGGTCACGGAGCTCAAAGGGCTAGCAACTCACATCCTGGTAGGTAGCG
TGACCTGTGAGACCAAAGAGCTGTTTGACGCCGACCTCAGGTAGTGGCTGTGACATCAATGACCTTGGTACCA
TCAAACCTGAACCTGGAATCACCTGGTATCCATTTGACGTGGAGGACATGACCGCATCCTCAGGCGCTGGGAACA
AGGCAGCAGCCCTTCAGAGGAGAATGTCCATGTACAGCCAGGGTACCCCGGAAACGCCACCTTCAAAGACCACT
CCTTCTTTTCAAATCTACCTGATGACATCTTTGAAAATGGAAAGGCAGCCGAGGAGAAAATGCCACTGTGCTCA
GCTTCAGTGACCTGCCCAACGGGGACTGCGCCCTCACCTCCCACTCAACAGGCTCCCCTTCCAACCTCAACAAATC
CAGAAATTACCATCACCCCTGCGGAGTTTAACTCAGCAGCTTGGCCTCCAGAATGAGGGTATGGATGACACCA
GCTCAGCATCTTCCAGGAACTCCCTGGGAGAAGGCCAAGAGCCAAAGTCACACCTGAAGGAGGAAGACCCAGAGG
AGCCCGAGAAAACCTGCCTCGGCCCATCTGAGGCTTGCCGCCGACAGTCCTCAGGTGCTGGGGCTGAGCACCTGT
TCCTTGAGAATGATGTTGCAGAAGCACTTCTGCAAGAGTCTGAGGAGGCCTCTGAGCTCAAGCCTGTGGAACCTGG
ACACTTCGGAAGGAAACATCACAAAGCAGCTGGTCAAGAGGCTCACATCTGCAGAGGTGCCAATGGCCACAGACA
GGCTGCTCTCTGAGGGTTCTGTTGGTGGAGAATCTGAAGGCTGCAGATCCTTTCTAGATGGAAGCTTAGAGGATG
CTTTTAATGGGCTTTTACTTGCAATTAGAACCACATAAAGAGCAGTATAAAGAGTTTCAGGATCTGAACCAAGAAG
TCATGAATTTGGATGATATTCTAAAAAAGTAGAGAAGATCCTCTAATGGATCCCAGTGTGCCCATCCCTCAACCT
CCTCAGTGATCAACTCATGGCCAATCTTGTTTCTATTCTTCAACCTGCTGACTTCCCTCTGGATTCTTCTGCAA
CCAGTCCCAGATATTGTGCCATTTTATCCATTGGTTGTACTTCTTTTTTGGATATAAAGATTTTTTAAATGCATTTT
TTAAATGCTAACAAAAAATAAAAACCTTGAACAAAAA

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FIGURE 507

MLVGSQSFSPGGPNGIIRSQSFAGFSGLQERRSRCNSFIENSSALKKPQAKLKKMHNLGHKNNNPPKEPQPKRVE
EVYRALKNGLDEYLEVHQTELDKLTAKLQKDMKRNSRLGVLYDLKQIKTIERYMRRLEFHISKVDELYEAYCIQR
RLQDGASKMKQAFATSPASKAARESLEINRSFKEYTENMCTIEVELENLLGEFSIKMKGLAGFARLCPGDQYEI
FMKYGRQRWKLKGKIEVNGKQSWDGEETVFLPLIVGFISIKVTELKGLATHILVGSVTCETKELFAARPQVVAVD
INDLGTIKLNLEITWYPFDVEDMTASSGAGNKAALQRRMSMYSQGTPETPTFKDHSFFSNLPDDIFENGKAAEE
KMPLSLSFSDLPNGDCALTSHSTGSPSNSTNPEITITPAEFNLSSLASQNEGMDDTSSASSRNSLGEGQEPKSHL
KEEDPEEPRKPASAPSEACRRQSSGAGAEHLFLENDVAEALLQESSEASELKPVELDTSEGNITKQLVKRLTSAE
VPMATDRLLSEGSVGGEGCRSFLDGSLEDAFNGLLLALEPHKEQYKEFQDLNQEVMLDDILKK

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FIGURE 508

CGGGGGCTGGCGGCTGCGGCTCGGCGGAGAGTGCGGC**ATG**CGCTCGGAAAAGGAGGGGGCCGGAGGCCTTCGGGC
GGCCGTTGCCGCGCGGGGCCCCGAGCGGGAGGGAGAAGCTGTGCGCCCTAGAAGTGCAGTTCACCGCGACTCGCA
GCAGCAGGAGGCTGAGACGCCGCCAACTTCGTCTCCGGTTGCGGGGGCGGTGCGGGCAAACCTCGCGAGGAGAA
GAGGACGGCCCTGAGCAAGGTGGTTCATCCGCCGCTGCCTCCGGGGCTCACCAAGGAGCAGCTGGAGGAGCAGCT
GCGCCCGCTGCCAGCACACGACTACTTCGAGTTCCTTCGCCGCCGACCTGAGTCTTTATCCTCATCTCTACTCAAG
AGCATACATTAATTTTAGGAATCCTGATGACATCCTTCTTTTTAGAGATCGTTTTGATGGATATATCTTCCTTGA
CAGCAAAGGCCTAGAATATCCTGCAGTGGTAGAGTTTGCTCCATTCCAGAAGATAGCCAAAAAGAAGCTGAGAAA
AAAAGATGCCAAGACTGGAAGCATCGAAGATGATCCAGAATATAAGAAGTTTTTAGAAACCTACTGTGTGGAGGA
AGAGAAGACCAGTGCCAACCCTGAGACTCTGCTGGGGGAGATGGAGGCGAAGACAAGAGAGCTCATTGCTAGAAG
AACCACACCTCTTTTGGAATATATTAATAATAGAAAATTAGAAAAGCAGAGAATTCGAGAAGAGAAGCGAGAAGA
ACGGAGGAGGAGAGAGTTAGAAAAGAAACGTTTGCGGGAAGAGGAAAAAAGAAGAAGAAGAAGAAGAAGATG
CAAAAAAAGAGACAGATAAACAGAAAGAAATTGCAGAGAAAGAAAGTAAGGATTAAGCTTCTTAAGAAACCAGA
AAAGGGAGAGGAACCAACCACAGAGAAACCAAAAGAAAGAGGAGAGGAGATTGATACTGGAGGTGGCAAGCAGGA
ATCCTGTGCCCCCGGTGCAGTCGTAAAAGCCAGGCCCATGGAAGGCTCGCTGGAGGAGCCCCAGGAGACGTCACA
CAGCGGCAGTGATAAAGAGCACAGGGATGTGGAGAGATCTCAAGAACAAGAACTCTGAAGCACAAAGATACCATGT
GGATGACGGCAGGAGGCACAGAGCTCACCACGAGCCTGAACGGCTTTCCAGAAGGAGTGAGGATGAGCAGAGATG
GGGGAAGGACCTGGCCAAGACAGAGGGAAGAAGGGGAGCCAGGACAGCGGGGCTCCGGGGGAGGCCATGGAGAG
ACTGGGAAGAGCGCAGAGGTGTGACGACAGTCCAGCACCCAGAAAAGAGCGACTGGCAAACAAGGACCGGCCAGC
CTTGCACTGTATGATCCAGGAGCTCGCTTCGAGCGCGAGAGTGTGGCGGAAACAGGAGGATCTGCAAGGCAGA
AGGTTTCGGGACTGGTCTTGAGAAGAGGGAAGAGGCAGAG**TGAG**TCACTGCACGCACCTGGCCTCCATGGACGAG
CAAGGGCATCCCAGAAACGTGTAAATGACCCGAGTGTGACTGGGAAGGAGAACTTATTCCTTACCAGGAACTG
GAAGCTAAAAATACAGAGGGTGACGTAGAAACACGCAGAAACCATTCTAAAGAAAGTAGTGATCTTGTATTAAAT
TGAGCAGAATTCTCACAGATTTTACCATTCTGTATATAAACTAGTATTTGTTGTTTAGCCAAAACAGAAAATGAT
TTCCACTGGACAGTAGAAAAATATGTGTAAATAGGGAAGAAAGTTAGTATTGGATCAGTGTGAGTCTTGAAGCA
CTTTCAGTGCTGTGAGAACGACATCCACTTTGGGTTTTCACTCGTTTGTAAGCAGAGGAGCTGTCAGTCACTCGTG
CTTCTCGGTGGCCTCTGAGCCATGGTGTGAGTGAAGAGTAGTTCTTGTTTGTACAACTTTGTGAGTCAGCCA
TGCCCGCAAAGCGTGCTGTGTTTTAGTCCTGGTAGGAATATTTATCAGAGTTCACACTATATAAAACCCAACAGC
TTCAACTATTGCCCTTTCAACAGTTTTGCCACTGACCGGATAGAAACGGTTTCAGTCTCTGGATGGATGTGTTTG
TGTTTTGTAACCATTACGGTTTTAAACCATGGTTTTAAGAATTTGCCCAAATAACAGAAATTTTGTTTCGGGAAGGGA
TAAACTAGATATAGCATAACAGACCTGTTTTTGAGTTTTAGATACTTTATTTGTAAATAACTTAAATAGCTTTC
TGAAACCGTGATTCTGTAGTTTCTTCCTTTTCAGTGAAATTGCTAAATGTCAATGTATTTTTGGCACTGCGATTT
TAACCATTTATTAAATAAAAAATTTGTAAAGAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 509

MRSEKEGAGGLRAAVAARGPSGREKLSALEVQFHRDSQQQEAETPPTSSSGCGGGAGKPREEKRTALSKVVIRRL
PPGLTKEQLEEQLRPLPAHDYFEFFAADLSLYPHLYSRAYINFRNPDDILLFRDRFDGYIFLDSKGLEYPAVVEF
APFQKIAKKKLRKKDAKTGSIEDDPEYKKFLETYCVVEEKT SANPETLLGEMEAKTRELIARRTTP LLEYIKNRK
LEKQRIREEKREERRRRELEKKRLREEEKRRRREEERCKKKETDKQKKIAEKEVRIKLLKKPEKGEEPTTEKPKE
RGEEIDTGGGKQESCAPGAVVKARPMEGSLEEPQETSHSGSDEHRDVERSQQESEAQRYHVDDGRRHRAHHEP
ERLSRRSEDEQRWGKPGQDRGKKGSQDSGAPGEAMERLGRAQRCDDSPAPRKERLANKDRPALQLYDPGARFRA
RECGGNRRICKAEGSGTGPEKREEAE

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FIGURE 510

GCCCCATCTCCTTGGGCTGCCCCGTGCTTCGTGCTTTGGACTACCGCCCAGCAGTGTCTGCCCTCTGCCTGGGCC
TCGGTCCCTCCTGCACCTGCTGCCTGGATCCCCGGCCTGCCTGGGCCTGGGCCTTGTTCTCCCC**ATG**ACACCAC
CTGAACGTCTCTTCCTCCCAAGGGTGTGTGGCACCACCCTACACCTCCTCCTTCTGGGGCTGCTGCTGGTTCTGC
TGCTTGGGGCCCCAGGGGCTCCCTGGTGTGGCCTCACACCTTCAGCTGCCCAGACTGCCCGTCAGCACCCCAAGA
TGCACTTTGCCCACAGCACCTCAAACCTGCTGCTCACCTCATTGGAGACCCCAGCAAGCAGAACTCACTGCTCT
GGAGAGCAAACACGGACCGTGCTTCCTCCAGGATGGTTTCTCCTTGAGCAACAATTCTCTCCTGGTCCCCACCA
GTGGCATCTACTTCGTCTACTCCCAGGTGGTCTTCTCTGGGAAAGCCTACTCTCCCAAGGCCACCTCCTCCCCAC
TCTACCTGGCCCATGAGGTCCAGCTCTTCTCCTCCAGTACCCCTTCCATGTGCCTCTCCTCAGCTCCCAGAAGA
TGGTGTATCCAGGGCTGCAGGAACCCTGGCTGCACTCGATGTACCACGGGGCTGCGTTCCAGCTCACCCAGGGAG
ACCAGCTATCCACCACACAGATGGCATCCCCACCTAGTCCTCAGCCCTAGTACTGTCTTCTTTGGAGCCTTCG
CTCTG**TAG**AACTTGAAAAATCCAGAAAGAAAAAATAATTGATTTCAAGACCTTCTCCCCATTCTGCCTCCATTC
TGACCATTTCAAGGGTTCGTCAACACCTCTCCTTTGGCCATTCCAACAGCTCAAGTCTTCCCTGATCAAGTCACCG
GAGCTTTCAAAGAAGGAATTCTAGGCATCCCAGGGGACCACACCTCCCTGAACCATCCCTGATGTCTGTCTGGCT
GAGGATTTCAAGCCTGCCTAGGAATTCCCAGCCCAAAGCTGTTGGTCTGTCCCACCAGCTAGGTGGGGCCTAGAT
CCACACACAGAGGAAGAGCAGGCACATGGAGGAGCTTGGGGGATGACTAGAGGCAGGGAGGGGACTATTTATGAA
GGCAAAAAAATTAAATTATTTATTTATGGAGGATGGAGAGAGGGGAATAATAGAAGAACATCCAAGGAGAAACAG
AGACAGGCCCCAAGAGATGAAGAGTGAGAGGGCATGCGCACAAGGCTGACCAAGAGAGAAAGAAGTAGGCATGAGG
GATCACAGGGCCCCAGAAGGCAGGGAAAGGCTCTGAAAGCCAGCTGCCGACCAGAGCCCCACACGGAGGCATCTG
CACCCCTCGATGAAGCCCAATAAACCTCTTTTCTCTG

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FIGURE 511

MTPPERLFLPRVCGTTLHLLLGLLLVLLPGAQGLPGVGLTPSAAQTARQHPKMHLAHSTLKPAAHLIGDPSKQN
SLLWRANTDRAFLQDGFSLSNNSLLVPTSGIYFVYSQVVFSGKAYSPKATSSPLYLAHEVQLFSSQYPFHVPLLS
SQKMVYPGLQEPWLHSMYHGA AFQLTQGDQLSTHTDGIPHLVLSPSTVFFGAFAL

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FIGURE 512

TGAAAGGGCTGTCACCCGGCTTGGCCCCTTCCACACCCAACTGGGGCAAGCCTGACCCGGCGACAGGAGGCATG
 AGGGGCCCCCGGCCGAAATGACAGTGCTGGCGCCAGCCTGGAGCCCAACAACCTATCTCCTCCTGCTGCTGCTGC
 TGAGCTCGGGACTCAGTGGGACCCAGGACTGCTCCTTCCAACACAGCCCCATCTCCTCCGACTTCGCTGTCAAAA
 TCCGTGAGCTGTCTGACTACCTGCTTCAAGATTACCCAGTCACCGTGGCCTCCAACCTGCAGGACGAGGAGCTCT
 GCGGGGCGCTCTGGCGGCTGGTCCTGGCACAGCGCTGGATGGAGCGGCTCAAGACTGTCGCTGGGTCCAAGATGC
 AAGGCTTGCTGGAGCGCGTGAACACGGAGATACACTTTGTACCAAATGTGCCTTTCAGCCCCCCCCCAGCTGTC
 TTCGCTTCGTCCAGACCAACATCTCCCGCCTCCTGCAGGAGACCTCCGAGCAGCTGGTGGCGCTGAAGCCCTGGA
 TCACTCGCCAGAACTTCTCCCGGTGCCTGGAGCTGCAGTGTGACCCCGACTCCTCAACCCTGCCACCCCCATGGA
 GTCCCCGGCCCCCTGGAGGCCACAGCCCCGACAGCCCCGACCCCCCTCTGCTCCTCCTACTGCTGCTGCCCCGTGG
 GCCTCCTGCTGCTGGCCGCTGCCTGGTGCCTGCACTGGCAGAGGACGCGGCGGAGGACACCCGCCCTGGGGAGC
 AGGTGCCCCCGTCCCCAGTCCCCAGGACCTGCTGCTTGTGGAGCACTGACCTGGCCAAGGCCTCATCCTGGGGA
 GGATACGTAGGCACACAGAGGGGAGTCACCAGCC

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FIGURE 513

MTVLAPAWSPTTYLLLLLLLSSGLSGTQDCSFQHSPISSDFAVKIRELSDYLLQDYPVTVASNLQDEELCGALWR
LVLAQRWMERLKTVAGSKMQGLLERVNTTEIHFVTKCAFQPPPSCLRFVQTNISRLLQETSEQLVALKPWITRQNF
SRCLELQCQPDSSTLPPPWSPRPLEATAPTAPQPPLLLLLLLPVGLLLLAAAWCLHWQTRRRRTPRPGEQVPPVP
SPQDLLLVEH

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FIGURE 514A

CTTCAGATAGATTATATCTGGAGTGAAGGATCCTGCCACCTACGTATCTGGCATAGTATTCTGTGTAGTGGGATG
AGCAGAGAAACAAAACAAAATAATCCAGTGAGAAAAGCCGTAAATAAACCTTCAGACCAGAGATCTATTCTCCA
GCTTATTTTAAGCTCAACTTAAAAAGAAGAACTGTTCTCTGATTCTTTTCGCCCTTCAATACACTTAATGATTAA
CTCCACCCTCCTTCAAAGAAACAGCATTTCCTACTTTTATACTGTCTATATGATTGATTGTCACAGCTCATCTG
GCCAGAAGAGCTGAGACATCCGTTCCCCTACAAGAACTCTCCCCGGGTGGAACAAGATGATTATCAAGTGTC
AGTCCAATCTATGACATCAATTATTATACATCGGAGCCCTGCCAAAAATCAATGTGAAGCAAATCGCAGCCCGC
CTCCTGCCTCCGCTCTACTCACTGGTGTTCATCTTTGGTTTTGTGGGCAACATGCTGGTCATCCTCATCCTGATA
AACTGCAAAAGGCTGAAGAGCATGACTGACATCTACCTGCTCAACCTGGCCATCTCTGACCTGTTTTCTTCTT
ACTGTCCCCTTCTGGGCTCACTATGCTGCCGCCAGTGGGACTTTGGAAATACAATGTGTCAACTCTTGACAGGG
CTCTATTTTATAGGCTTCTTCTCTGGAATCTTCTTCATCATCCTCCTGACAATCGATAGGTACCTGGCTGTCGTC
CATGCTGTGTTTTGCTTTAAAAAGCCAGGACGGTCACCTTTGGGGTGGTGACAAGTGTGATCACTTGGGTGGTGGCT
GTGTTTTGCGTCTCTCCAGGAATCATCTTTACCAGATCTCAAAAAGAAGGTCTTCATTACACCTGCAGCTCTCAT
TTTCCATACAGTCAGTATCAATTCTGGAAGAATTTCCAGACATTAAAGATAGTCATCTTGGGGCTGGTCTGCGG
CTGCTTGTGTCATGGTCATCTGCTACTCGGGAATCCTAAAAACTCTGCTTCCGGTGTGGAATGAGAAGAAGAGGCAC
AGGGCTGTGAGGCTTATCTTCACCATCATGATTGTTTTATTTTCTTCTTCTGGGCTCCCTACAACATTGTCTTCTC
CTGAACACCTTCCAGGAATCTTTGGCCTGAATAATTGCAGTAGCTCTAACAGGTTGGACCAAGCTATGCAGGTG
ACAGAGACTCTTGGGATGACGCACTGCTGCATCAACCCCATCATCTATGCCCTTGTGCGGGAGAAGTTCAGAAAC
TACCTCTTAGTCTTCTTCCAAAAGCACATTGCCAACGCTTCTGCAAATGCTGTTCTATTTTCCAGCAAGAGGCT
CCCGAGCGAGCAAGCTCAGTTTACACCCGATCCACTGGGGAGCAGGAAATATCTGTGGGCTTGTGACACGGACTC
AAGTGGGCTGGTGACCCAGTCAGAGTTGTGCACATGGCTTAGTTTTATACACAGCCTGGGCTGGGGGTGGGGTG
GGAGAGGTCTTTTTTAAAAGGAAGTTACTGTTATAGAGGGTCTAAGATTATCCATTTATTTGGCATCTGTTTAA
AGTAGATTAGATCTTTTAAAGCCCATCAATTATAGAAAGCCAAATCAAAATATGTTGATGAAAAATAGCAACCTTT
TTATCTCCCTTCACATGCATCAAGTTATTGACAACTCTCCCTTCACTCCGAAAGTTCCTTATGTATATTTAAA
AGAAAGCCTCAGAGAATTGCTGATTCTTGAGTTTAGTGATCTGAACAGAAATACCAAATTTATTTAGAAATGTA
CAACTTTTTTACCTAGTACAAGGCAACATATAGGTTGTAAATGTGTTTTAAAACAGGTCTTTGTCTTGCTATGGGA
GAAAAGACATGAATATGATTAGTAAAGAAATGACACTTTTTCATGTGTGATTTCCTCCCAAGGTATGGTTAATAA
GTTTCACTGACTTAGAACCAGGCGAGAGACTTGTGGCCTGGGAGAGCTGGGGAAAGCTTCTTAAATGAGAAGGAAT
TTGAGTTGGATCATCTATTGCTGGCAAAGACAGAAGCCTCACTGCAAGCACTGCATGGGCAAGCTTGGCTGTAGA
AGGAGACAGAGCTGGTTGGGAAGACATGGGGAGGAAGGACAAGGCTAGATCATGAAGAACCTTGACGGCATTGCT
CCGTCTAAGTCATGAGCTGAGCAGGGAGATCCTGGTTGGTGTGTCAGAAAGTTTACTCTGTGGCCAAAGGAGGGT
CAGGAAGGATGAGCATTTAGGGCAAGGAGACCACCAACAGCCCTCAGGTCAGGCTGAGGATGGCCTCTGCTAAGC
TCAAGGCGTGAGGATGGGAAGGAGGGAGGTATTCGTAAGGATGGGAAGGAGGAGGTATTCGTGCAGCATATGAG
GATGCAGAGTCAGCAGAACTGGGGTGGATTGGTTTGGAAAGTGAAGGTCAGAGAGGAGTCAGAGAGAATCCCTAG
TCTTCAAGCAGATTGGAGAAACCTTGAAAAGACATCAAGCACAGAAGGAGGAGGAGGTTTAGGTCAAGAAG
AAGATGGATTGGTGTAAGGATGGGTCTGGTTTGAGAGCTTGAACACAGTCTCACCCAGACTCCAGGCTGTCT
TTCCTGAATGCTTCTGACTTCATAGATTTCTTCCCATCCCAGCTGAAATACTGAGGGGTCTCCAGGAGGAGAC
TAGATTTATGAATACACGAGGTATGAGGTCTAGGAACATACTTCAGCTCACACATGAGATCTAGGTGAGGATTGA
TTACCTAGTAGTCATTTTCATGGGTTGTTGGGAGGATTCTATGAGGCAACCACAGGCAGCATTTAGCACATACTAC
ACATTCAATAAGCATCAAACTCTTAGTTACTCATTAGGGATAGCACTGAGCAAAGCATTGAGCAAAGGGGTCCC
ATATAGGTGAGGGAAGCCTGAAAACTAAGATGCTGCCTGCCAGTGCACACAAGTGATAGGTATCATTTTCTGCA
TTTAAACCGTCAATAGGCAAAAGGGGGGAAGGGACATATTCAATTTGGAAATAAGCTGCCTTGAGCCTTAAACCCAC
AAAAGTACAATTTACCAGCCTCCGTATTTAGACTGAATGGGGGTGGGGGGGGCGCCTTAGGTACTTATTCAGA
TGCCTTCTCCAGACAAACCAGAAGCAACAGAAAAATCGTCTCTCCCTCCCTTTGAAATGAATATACCCCTTAGT
GTTTTGGGTATATTCATTTCAAAGGGAGAGAGAGAGGTTTTTTTTCTGTTCTTTCTCATATGATTGTGCACATACTT
GAGACTGTTTTGAATTTGGGGGATGGCTAAAACCATCATAGTACAGGTAAGGTGAGGGAATAGTAAGTGGTGAGA
ACTACTCAGGGAATGAAGGTGTCAGAATAATAAGAGGTGCTACTGACTTTTCTCAGCCTCTGAATATGAACGGTGA
GCATTGTGGCTGTCAGCAGGAAGCAACGAAGGGAAATGTCTTTCTTTTGTCTTAAAGTTGTGGAGAGTGCAACA
GTAGCATAGGACCTACCTCTGGGCCAAGTCAAAGACATTCTGACATCTTAGTATTGTCATATTCTTATGTATG

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FIGURE 514B

TGAAAGTTACAAATTGCTTGAAAGAAAATATGCATCTAATAAAAAACACCTTCTA

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FIGURE 515

MDYQVSSPIYDINYYTSEPCQKINVKQIAARLLPPLYSLVFIFGFVGNMLVILILINCKRLKSMTDIYLLNLAIS
DLFFLLTVPFWAHYAAAQWDFGNTMCQLLTGLYFIGFFSGIFFIILLTIDRYLAVVHAVFALKARTVTFGVVTSTV
ITWVVAVFASLPGIIFTRSQKEGLHYTCSSHFPYSQYQFWKNFQTLKIVILGLVLPLLVMVICYSGILKTLLRCR
NEKKRHRAVRLIFTIMIVYFLFWAPYNIVLLNTFQEFFGLNNCSSNRDQAMQVTETLGMTHCCINPIIYAFV
GEKFRNYLLVFFQKHIAKRFCKCCSIFQQEAPERASSVYTRSTGEQEISVGL

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FIGURE 516A

TGCAGAGAACAGAGAAAGGACATCTGCGAGGAAAGTTCCCTGATGGCTGTCAACAAAGTGCCACGTCTCTATGGC
TGTGTACGCTGAGCACACGATTTTATCGCGCCTATCATATCTTGGTGCATAAACGCACCTCACCTCGGTCAACCC
TTGCTCCGTCTTATGAGACAGGCTTTATTATCCGCATTTTATATGAGGGGAATCTGACGGTGGAGAGAGAATTAT
CTTGCTCAAGGCGACACAGCAGAGCCCACAGGTGGCAGAATCCACCCGAGCCCGCTTCGACCCGCGGGGTGGAA
ACCACGGGCGCCCCGCGGCTGCGCTTCCAGAGCTGAACTGAGAAGCGAGTCCTCTCCGCCCTGCGGCCACCGCC
CAGCCCCGACCCCCGCCCCGCGCCGATCCTCACTCGCCGCCAGCTCCCCGCGCCACCCCGGAGTTGGTGGCGCA
GAGGCGGGAGGCGGAGGCGGGAGGGCGGGCGCTGGCACCGGGAACGCCCGAGCGCCGGCAGAGAGCGCGGAGAGC
GCGACACGTGCGGCCAGAGCACCGGGGCCACCCGGTCCCCGACGGCCCGGACCGCGCCCGCTGGCAGGCGACA
CGTGGAAGAATACGGAGTTCTATACCAGAGTTGATTGTT**GATG**GCACATACTTTTAGAGGATGCTCATTGGCATT
TATGTTTATAATCACGTGGCTGTTGATTAAAGCAAAAATAGATGCGTGCAAGAGAGGGCGATGTGACTGTGAAGCC
TTCCCATGTAATTTTACTTGGATCCACTGTCAATATTACATGCTCTTTGAAGCCAGACAAGGCTGCTTTCACTA
TTCCAGACGTAACAAGTTAATCCTGTACAAGTTTGACAGAAGAATCAATTTTCACCATGGCCACTCCCTCAATTC
TCAAGTCACAGGTCTTCCCCTTGGTACAACCTTGTTTGTCTGCAAACTGGCCTGTATCAATAGTGATGAAATTCA
AATATGTGGAGCAGAGATCTTCGTTGGTGTGCTCCAGAACAGCCTCAAAATTTATCCTGCATACAGAAGGGAGA
ACAGGGGACTGTGGCCTGCACCTGGGAAAGAGGACGAGACACCCACTTATACACTGAGTATACTCTACAGCTAAG
TGGACCAAAAAAATTTAACCTGGCAGAAGCAATGTAAAGACATTTATTGTGACTATTTGGACTTTGGAATCAACCT
CACCCCTGAATCACCTGAATCCAATTTACAGCCAAGGTTACTGCTGTCAATAGTCTTGGAAGCTCCTCTTCACT
TCCATCCACATTACATTCTTGGACATAGTGAGGCCTCTTCTCCGTGGGACATTAGAATCAAAATTTCAAAAGGC
TTCCGTGAGCAGATGTACCCTTTATTGGAGAGATGAGGGACTGGTACTGCTTAATCGACTCAGATATCGGCCCCAG
TAACAGCAGGCTCTGGAATATGGTTAATGTTACAAAGGCCAAAGGAAGACATGATTTGCTGGATCTGAAACCATT
TACAGAATATGAATTTTCAATTTCTCTAAGCTACATCTTTATAAGGGAAGTTGGAGTGATTGGAGTGAATCATT
GAGAGCACAAACACCAGAAGAAGAGCCTACTGGGATGTTAGATGTCTGGTACATGAAACGGCACATTGACTACAG
TAGACAACAGATTTCTCTTTTCTGGAAGAATCTGAGTGTCTCAGAGGCAAGAGGAAAAATTCTCCACTATCAGGT
GACCTTGCAGGAGCTGACAGGAGGGAAAGCCATGACACAGAACATCACAGGACACACCTCCTGGACCACAGTCAT
TCCTAGAACCAGAAATTTGGGCTGTGGCTGTGTCTGCAGCAAATTCAAAAGGCAGTTCTCTGCCCCACTCGTATTAA
CATAATGAACCTGTGTGAGGCAGGTTGCTGGCTCCTCGCCAGGTCTCTGCAAACTCAGAGGGCATGGACAACAT
TCTGGTGACTTGGCAGCCTCCCAGGAAAGATCCCTCTGCTGTTTACAGGAGTACGTGGTGGAATGGAGAGAGCTCCA
TCCAGGGGGTGACACACAGGTCCCTCTAACTGGCTACGGAGTCGACCCTACAATGTGTCTGCTCTGATTTTCA
GAACATAAAATCCTACATCTGTTATGAAATCCGTGTGTATGCACTCTCAGGGGATCAAGGAGGATGCAGCTCCAT
CCTGGGTAACTCTAAGCACAAAGCACCCTGAGTGGCCCCCACATTAATGCCATCACAGAGGAAAAGGGGAGCAT
TTTAATTTTCAATGGAACAGCATTCCAGTCCAGGAGCAAATGGGCTGCCTCCTCCATTATAGGATATACTGGAAGGA
ACGGGACTCCAACCTCCAGCCTCAGCTCTGTGAAATTCCTACAGAGTCTCCCAAATTCACATCCAATAAACAG
CCTGCAGCCCCGAGTGACATAATGTCCTGTGGATGACAGCTCTGACAGCTGCTGGTGAAAGTTCCACCGGAAATGA
GAGGGAATTTTGTCTGCAAGGTAAAGCCAATTGGATGGCGTTTGTGGCACCAAGCATTGTCATTGCTATCATCAT
GGTGGGCATTTTCTCAACGCATTACTTCCAGCAAAAGGTGTTTGTCTCCTAGCAGCCCTCAGACCTCAGTGGTG
TAGCAGAGAAATTCAGATCCAGCAATAGCACTTGCGCTAAGAAATATCCCATTCAGAGGAGAAGACACAGCT
GCCCTTGACAGGCTCCTGATAGACTGGCCACGCCTGAAGATCCTGAACCGCTGGTCATCAGTGAAGTCCTTCA
TCAAGTGACCCCAAGTTTTTCAACATCCCCCTGCTCCAAGTGGCCACAAAGGGAAAAAGGAATCCAAGGTATCA
GGCCTCTGAGAAAGACATGATGCACAGTGCCCTCAAGCCCACCACTCCAAGAGCTCTCCAAGCTGAGAGCAGACA
ACTGGTGGATCTGTACAAGGTGCTGGAGAGCAGGGGCTCCGACCCAAAGCCAGAAAACCCAGCCTGTCCCTGGAC
GGTGTCTCCAGCAGGTGACCTTCCCACCATGATGGCTACTTACCCTCCAACATAGATGACCTCCCCTCACATGA
GGCACCTCTCGCTGACTCTCTGGAAGAACTGGAGCCTCAGCACATCTCCCTTTCTGTTTTCCCTCAAGTTCTCT
TCACCCACTCACCTTCTCCTGTGGTGATAAGCTGACTCTGGATCAGTTAAAGATGAGGTGTGACTCCCTCATGCT
CTGAGTGGTGAGGCTTCAAGCCTTAAAGTCAGTGTGCCCTCAACCAGCACAGCCTGCCCAATTCCCCAGCCCC
TGCTCCAGCAGCTGTCTCTGCGTGGTACCATCGGTCTGGCTGCAGCTAGAGGACAGGCAAGCCAGCTCTGGG
GGAGTCTTAGGAACGGGAGTTGGTCTTCACTCAGATGCCTCATCTTGCCCTTCCAGGGCCTTAAATTTACATC
CTTCACTGTGTGGACCTAGAGACTCCAACCTTGAATTCCTAGTAACTTTCTTGGTATGCTGGCCAGAAAGGGAAAT
GAGGAGGAGAGTAGAAACCACAGCTCTTAGTAGTAATGGCATACAGTCTAGAGGACCATTATGCAATGACTATT

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FIGURE 516B

TCTAAAGCACCTGCTACACAGCAGGCTGTACACAGCAGATCAGTACTGTTCAACAGAACTTCCTGAGATGATGGA
AATGTTCTACCTCTGCACTCACTGTCCAGTACATTAGACACTAGGCACATTGGCTGTTAATCACTTGGAATGTGT
TTAGCTTGACTGAGGAATTAAATTTTGATTGTAAATTTAAATCGCCACACATGGCTAGTGGCTACTGTATTGGAG
TGCACAGCTCTAGATGGCTCCTAGATTATTGAGAGCCTCCAAAACAAATCAACCTAGTTCTATAGATGAAGACAT
AAAAGACACTGGTAAACACCAATGTAAAAGGGCCCCCAAGGTGGTCATGACTGGTCTCATTTCAGAAAGTCTAAG
AATGTACCTTTTTCTGGCCGGGCGTGGTAGCTCATGCCTGTAATCCCAGCACTTTGGGAGGCTGA

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FIGURE 517

MAHTFRGCSLAFMFIITWLLIKAKIDACKRGDVTVKPSHVILLGSTVNITCSLKPRQGC FHYSSRNKLILYKFDR
RINFHHGHSLSNSQVTGLPLGTTLFVCKLACINSDEIQICGAEIFVGVAPEQPQNLS CIQKEQGT VACTW ERGRD
THLYTEYTLQLSGPKNL TWQKQCKDIYCDYLD FGINLTPES PESNFTAKVTAVNSLGSSSSLPSTFTFLDIVRPL
PPWDIRIKFQKASVSRCTLYWRDEGLVLLNRLRYRPSNSRLWNMVNVT KAKGRHDLLDLKPFTEYEFQISSKLHL
YKGSWSDWSESLRAQTPEEEPTGMLDVWYMKRHDYSRQQISLFWKNLSVSEARGKILHYQVTLQELTGGKAMTQ
NITGHTSWTTVIPRTGNWAVAVSAANSKGSSLPTRINIMNLCEAGLLAPRQVSANSEGMDNILVTWQPPRKDPSA
VQEYVVEWRELHPGGDTQVPLNWLRSRPNVSALISENIKSYICYEIRVYALSGDQGGCSSILGNSKHKAPLSGP
HINAITEEKGSILISWNSIPVQEQMGCLLHYRIYWKERDSNSQPQLCEIPYRVSQNSHPINSLQPRVTYVLWMTA
LTAAGESSHGNEREFCLQKANWMAFVAPSICIAIIMVGIFSTHYFQQKVFLAALRPQWCSREIPDPANSTCA
KKYPIAEKTKQLPLDRLLIDWPTPEDPEPLVISEVLHQVTPVFRHPPCSNWPQREKGIQGHQASEKDMMHSASSP
PPPRALQAESRQLVDLYKVLESRGSDPKPENPACPWTVLPAGDLPTHGYLPSNIDDLPSHEAPLADSLEELEPQ
HISLSVFPSSSLHPLTFSCGDKLTLDQLKMRCDSLML

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FIGURE 518

CATTGAGAGACAGAAGGTGGATAGACAAATCTCCACCTTCAGACTGGTAGGCTCCTCCAGAAGCCATCAGACAGG
AAGATGTGAAAAATCCCCAGCACTCATCCCAGAATCACTAAGTGGCACCTGTCTGGGCCAAAGTCCCAGGACAGA
CCTCATTGTTCTCTGTGGGAATACCTCCCCAGGAGGGCATCTGGATTTCCTCCCTTGCAACCCAGGTGAGAAGT
TTCATCGTCAAGGTTGTTTCATCTTTTTTTCTGTCTAACAGCTCTGACTACCACCAACCTTGAGGCACAGTG
AAGACATCGGTGGCCACTCCAATAACAGCAGGTACAGCTGCTCTTCTGGAGGTGTCCTACAGGTGAAAAGCCCA
GCGACCCAGTCAGGATTTAAGTTTACCTCAAAAATGAAGATTTTAAACATGGAGAGTGACAGCTTTGAAGATTTT
TGGAAAGGTGAAGATCTTAGTAATTACAGTTACAGCTCTACCCTGCCCCCTTTTCTACTAGATGCCGCCCATGT
GAACCAGAATCCCTGGAAATCAACAAGTATTTTGTGGTCATTATCTATGCCCTGGTATTCTGTGAGCCTGCTG
GGAAACTCCCTCGTGATGCTGGTCATCTTATACAGCAGGGTCGGCCGCTCCGTCAGTGTCTACCTGCTGAAC
CTAGCCTTGGCCGACCTACTCTTTGCCCTGACCTTGCCCATCTGGGCCGCTCCAAGGTGAATGGCTGGATTTTT
GGCACATTCTGTGCAAGGTGGTCTCACTCCTGAAGGAAGTCAACTTCTATAGTGGCATCTGCTACTGGCCTGC
ATCAGTGTGGACCGTTACCTGGCCATTGTCCATGCCACACGCACTGACCCAGAAGCGCTACTTGGTCAAATTC
ATATGTCTCAGCATCTGGGGTCTGTCTTGTCTCTGGCCCTGCCTGTCTTACTTTTCCGAAGGACCGTCTACTCA
TCCAATGTTAGCCCAGCCTGCTATGAGGACATGGGCAACAATACAGCAAACCTGGCGGATGCTGTTACGGATCCTG
CCCCAGTCCCTTTGGCTTCATCGTGCCACTGCTGATCATGCTGTTCTGCTACGGATTACCCCTGCGTACGCTGTTT
AAGGCCCCACATGGGGCAGAAGCACCGGGCCATGCGGGTCATCTTTGCTGTCTCCTCATCTTCTGCTCTGCTGG
CTGCCCTACAACCTGGTCTCTGCTGGCAGACACCCTCATGAGGACCCAGGTGATCCAGGAGACCTGTGAGCGCCGC
AATCACATCGACCGGGCTCTGGATGCCACCGAGATTCTGGGCATCCTTCACAGCTGCCTCAACCCCTCATCTAC
GCCTTCATTGGCCAGAAGTTTCGCCATGGACTCCTCAAGATTCTAGCTATACATGGCTTGATCAGCAAGGACTCC
CTGCCCAAAGACAGCAGGCCTTCCTTTGTTGGCTCTTCTTCAGGGCACACTTCCACTACTCTCTTAAGACCTCCTG
CCTAAGTGCAGCCCGTGGGGTTCTCCTTCTCTTCACAGTCACATTCCAAGCCTCATGTCCACTGGTTCTTCTT
GGTCTCAGTGTCAATGCAGCCCCATTGTGGTCACAGGAAGTAGAGGAGGCCACGTTCTTACTAGTTTCCCTTGC
ATGGTTTAGAAAAGCTTGCCCTGGTGCCTCACCCCTTGCCATAATTACTATGTCATTTGCTGGAGCTCTGCCCATC
CTGCCCTGAGCCCATGGCACTCTATGTTCTAAGAAGTGAAGTCTACACTCCAGTGAGACAGCTCTGCATACTC
ATTAGGATGGCTAGTATCAAAAGAAAGAAAATCAGGCTGGCCAACGGGGTGAAACCTGTCTCTACTAAAAATACA
AAAAAAAAAAAAAAAAATTAGCCGGGCGTGGTGGTGAGTGCTGTAATCACAGCTACTTGGGAGGCTGAGATGGGAGA
ATCACTTGAACCCGGGAGCAGAGGTTCAGTGAGCCGAGATTGTGCCCTGCCATCCAGCCTGAGCGACAGTGAG
ACTCTGTCTCAGTCCATGAAGATGTAGAGGAGAACTGGAACCTCTCGAGCGTTGCTGGGGGGGATTGTAAATGG
TGTGACCACTGCAGAAGACAGTATGGCAGCTTTCTCAAAACTTCAGACATAGAATTAACACATGATCCTGCAAT
TCCACTTATAGGAATTGACCCACAAGAAATGAAAGCAGGGACTTGAACCCATATTTGTACACCAATATTCATAGC
AGCTTATTCACAAGACCCAAAAGGCAGAAGCAACCCAAATGTTTCATCAATGAATGAATGGCTAAGCAAAAT
GTGATATGTACCTAACGAAGTATCCTTCAGCCTGAAAGAGGAATGAAGTACTCATAATGTTACAACACGGACGA
ACCTTGAAAACCTTATGCTAAGTGAAATAAGCCAGACATCAACAGATAAATAGTTTATGATTCCACCTACATGAG
GTACTGAGAGTGAACAAATTTACAGAGACAGAAAGCAGAACAGTGATTACCAGGGACTGAGGGGAGGGGAGCATG
GGAAGTGACGGTTTAAATGGGCACAGGGTTTATGTTTAGGATGTTGAAAAAGTTCTGCAGATAAACAGTAGTGATA
GTTGTACCGCAATGTGACTTAATGCCACTAAATTGACACTTAAAAATGGTTTAAATGGTCAATTTTGTATGTAT
ATTTTATATCAATTTAAAAAAAACCTGAGCCCCAAAAGGTATTTTAAATCACCAGGCTGATTAAACCAAGGCTA
GAACCACTGCCTATATTTTTTGTAAATGATTTCAATATCTTTTTTTTAAATAAACCATTTTTTACTTGGGT
GTTTAT

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FIGURE 519

MEDFNMESDSFEDFWKGEDLSNYSYSSTLPPFLLDAAPCEPESLEINKYFVVIIYALVFLLSLLGNSLVMLVILY
SRVGRSVTDVYLLNLALADLLFALTLP IWAASKVNGWIFGTFLCKVVSLLKEVNFYSGILLLACISVDRYLAIVH
ATRILTQKRYLVKFICLSIWGLSLLLALPVLLFRRTVYSSNVSPACYEDMGNNNTANWRMLLRILPQSFGFIVPLL
IMLFCYGFILRTLKFAHMGQKHRAMRVIFAVVLIFLLCWLPYNLVLLADTLMRTQVIQETCERRNHIDRALDATE
ILGILHSCLNPLIYAFIGQKFRHGLLKILAIHGLISKDSL PKDSRPSFVGSSSGHTSTTL

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FIGURE 520

TTGGGGGTTTATTCTCTTCCCTTCTAACTTGACAGGGTCTTGCTCTGTCATTTCAGGCAAGAGTGCAGTAGTGTGA
TCACTTCTTACTGCCGCCTCAAGCTTCCAGCCTCAACTCAAGCAATCCTCCCACCTCAGCCACCCAAGTGGCTGG
GACTACAGATTAAAGAAATGACCCAAAATAAATTAAAGCTTTGTTCCAAAGCCAATGTGTATACTGAAGTGCCTGAT
GGAGGATGGGGCTGGGCGGTAGCTGTTTCATTTTTCTTCGTTGAAGTCTTCACCTACGGCATCATCAAGACATTT
GGTGTCTTCTTTAATGACTTAATGGACAGTTTTAATGAATCCAATAGCAGGATCTCATGGATAATCTCAATCTGT
GTGTTTGTCTTAACATTTTTAGCTCCCCTCGCCACAGTCCTGAGCAATCGTTTCGGACACCGTCTGGTAGTGATG
TTGGGGGGGCTACTTGTGACACCGGGATGGTGGCCGCCCTCCTTCTCACAAGAGGTTTTCTCATATGTACGTCGCC
ATCGGCATCATCTCTGGTCTGGGATACTGCTTTAGTTTCTCCCACTGTAACCATCCTATCACAATATTTTTGGC
AAAAGACGTTCCATAGTCACTGCAGTTGCTTCCACAGGAGAATGTTTCGCTGTGTTTGCTTTCGCACCAGCAATC
ATGGCTCTGAAGGAGCGCATTGGCTGGAGATACAGCCTCCTCTTCGTGGGCCTACTACAGTTAAACATTGTCATC
TTCGGAGCACTGCTCAGACCCATCATTATCAGAGGACCAGCGTCACCGAAAATAGTCATCCAGGAAAATCGGAAA
GAAGCGCAGTATATGCTTGAAAATGAGAAAACACGAACCTCAATAGACTCCATTGACTCAGGAGTAGAACTAACT
ACCTCACCTAAAAATGTGCCTACTCACACTAACCTGGAACCTGGAGCCGAAGGCCGACATGCAGCAGGTCTGGTG
AAGACCAGCCCCAGGCCAAGCGAAAAGAAAGCCCCGCTATTAGACTTCTCCATTTTGAAAGAGAAAAGTTTTATT
TGTTATGCATTATTTGGTCTCTTTGCAACACTGGGATTCTTTGCACCTTCCTTGTACATCATTCCTCTGGGCATT
AGTCTGGGCATTGACCAGGACCGCGCTGCTTTTTTATTATCTACGATGGCCATTGCAGAAGTTTTTCGGAAGGATC
GGAGCTGGTTTTGTCTCAACAGGGAGCCCATTCGTAAGATTTACATTGAGCTCATCTGCGTCATCTTATTGACT
GTGTCTCTGTTTGCCTTTACTTTTGCTACTGAATTCTGGGGTCTAATGTGTCATGCAGCATATTTTTTGGGTTTATG
GTTGGAACAATAGGAGGACTCACATTCCACTGCTTGCTGAAGATGATGTCGTGGGCATTGCAGAAGATGTCTTCT
GCAGCTGGGGTCTACATCTTCATTAGAGCATAGCAGGACTGGCTGGACCGCCCCTTGCAAGTTTGTGGTGGAC
CAAAGTAAGATCTACAGCAGGGCCTTCTACTCCTGCGCAGCTGGCATGGCCCTGGCTGCTGTGTGCCTCGCCCTG
GTGAGACCGTGTAAGATGGGACTGTGCCAGCGTCATCACTCAGGTGAAACAAAGGTAGTGAGCCATCGTGGGAAG
ACTTTACAGGACATACCTGAAGACTTTCTGGAAATGGATCTTGCAAAAAATGAGCACAGAGTTCACGTGCAAATG
GAGCCGGTATGACACACTTTCTTACAACAACAGCCACTGTGTTGGCTGGAGAGGGATGGGGTGGGCCCCAACGGGG
ACACAAGGAGGCAGAGGAGCTAACCCTCTACTCCACTTTCAAAACACTACATTTTAAAGGGAATGTGTATGTGAAG
AGCACTACCAACATCGCTTTTGTTTTGTTTTGTTTTGTTTTAAGCTTTTTTTTTTTTGCTTGTTTTTAAAGCCAAA
ACAAAAACAACCAAGCACTCTTCATATATAAATCTGGCTGTATTCAGTAGCAATACAAGAGATATGTAGAAAAG
ACTCTTTGGTTCACATTCCGATATTAAATAGTGACATGAACTGGCAAAGTGGTTTTTAAAGCTTTTACGTGGGA
TAAATGATTTTCTTTTTTTCTTTTCTTTCTTCTATGGTCTTGTCTGAATAAACTACTCTCTGAATAAAACAAC
ATCCAACCCAGGTCATTGAAATGAAATTGGCCAGTC

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FIGURE 521

MTQNKLLCSKANVYTEVPDGGWGWAVVSFFFVEVFTYGIKTFGVFFNDLMSDFNESNSRISWIISICVFVLT
FSAPLATVLSNRFGHRLVVMLGGLLVSTGMVAASFQEVSHMYVAIGIISGLGYCFSFLPTVTILSQYFGKRRI
VTAVASTGECFAVFAFAPAIMALKERIGWRYSLLFVGLLQLNIVIFGALLRPIIIRGPASPKIVIQENRKEAQM
LENEKTRTSIDSIDSGVELTTSKPNVPTHNTLELEPKADMQQVLVKTSRPSEKKAPLLDFSILKEKSFICYALF
GLFATLGFFAPSLYIIPLGISLGIDQDRAAFLLSTMAIAEVFGRIGAGFVLNREPIRKIYIELICVILLTVSLFA
FTFATEFWGLMSCSIFFGFMVGTIGGLTFHCLLKMMSWALQKMSSAAGVYIFIQSIAGLAGPPLAGLLVDQSKIY
SRAFYSCAAGMALAAVCLALVRPCKMGLCQRHHSGETKVVSHRGKTLQDIPEDFLEMDLAKNEHRVHVQMEPV

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FIGURE 522

GCGGGGTAGTCGGCGCGAGGCGGAGCTTGGCAGTTCCGTCCACTTCAGCCGCAGCGTCCCTCGCCGGGTGTCTCG
CCGCAGCCTCCGGAGAGGAACAGACCCTCACTCTCTCTGTTCAGAAAAATGCTCTGCTCCAGCTCAGCCACCTGCTG
AAGGGACAGAAGGGACTGCCCCAGGTGGGGGTCCCCCTGGCCCTCCTCCTAACATGACCAGTAACAGACGACTAC
AGCAAACCCAGGCACAAGTGGAGGAGGTGGTGGACATCATACTGTGAACGTGGACAAGGTCCTGGAGAGGGACC
AGAAGCTGTCAGAGCTGGATGACCGAGCTGATGCCTTGCAGGCAGGAGCATCACAAATTTGAGAGCAGTGCTGCCA
AGCTAAAGAGGAAGTATTGGTGGAAAACTGCAAGATGATGATCATGCTGGGAGCCATCTGTGCCATCATCGTGG
TAGTTATTGTAAGGCGGGACTGAAGAGCTGGAAGAAAGCAGTCAGTACCCTCCCAACGGCCCCCCTCGAAGGTCT
CCACTCTCCTCTGGGCTCCTCCTTGCCTAATGCAGGGGGTCACCGCTGGAGAAGAACCACCACTGTCCTCGATGT
GTCCCAAGCCTGGAGCGAATCCGTCCTCTTGGCTCTCCCAGCCCTATCACAGGAATCATTCTGGGTTTCTGTCC
CTCTGAGGCTCACCAGGTGTAGTTGGCCTTGTCTTTGGGGGTATTAGCCCTTCTACTTTCTTTCTCACCCACCC
TGTACCCTCTTCTGTGTGTCTCTGCTATCCCCCTTTCCTCCCAACCCCATGTGCATGAGCAAATGTGCAACAAA
ACCCTGGGACTTTGCAGTCAAATGAAGCTGA

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FIGURE 523

MSAPAQPPAEGTEGTAPGGGPPGPPPNMTSNRRLQQTQAQVEEVVDIIRVNVDKVLERDQKLSELDDRADALQAG
ASQFESSAAKLKRKYWWKNCKMMIMLGAICAIIVVVIVRRD

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FIGURE 524

CACACCCTGACAAGCTGCCAGGCAGGTTCTCTTCTCTCACATACTGACCCACGGCTCCACCCTCTCTCCCCTGG
AAAGGACACC**ATG**AGCACTGAAAGCATGATCCGGGACGTGGAGCTGGCCGAGGAGGCGCTCCCCAAGAAGACAGG
GGGGCCCCAGGGCTCCAGGCGGTGCTTGTTTCCTCAGCCTCTTCTCCTTCTGATCGTGGCAGGCGCCACCACGCT
CTTCTGCCTGCTGCACTTTGGAGTGATCGGCCCCCAGAGGGAAGAGTCCCCCAGGGACCTCTCTCTAATCAGCCC
TCTGGCCCAGGCAGTCAGATCATCTTCTCGAACCCCGAGTGACAAGCCTGTAGCCCATGTTGTAGCAAACCCTCA
AGCTGAGGGGCAGCTCCAGTGGCTGAACCGCCGGGCCAATGCCCTCCTGGCCAATGGCGTGGAGCTGAGAGATAA
CCAGCTGGTGGTGCCATCAGAGGGCCTGTACCTCATCTACTCCAGGTCCTCTTCAAGGGCCAAGGCTGCCCCCTC
CACCCATGTGCTCCTCACCCACACCATCAGCCGCATCGCCGTCTCCTACCAGACCAAGGTCAACCTCCTCTCTGC
CATCAAGAGCCCCTGCCAGAGGGAGACCCAGAGGGGGCTGAGGCCAAGCCCTGGTATGAGCCCATCTATCTGGG
AGGGGTCTTCCAGCTGGAGAAGGGTGACCGACTCAGCGCTGAGATCAATCGGCCCCGACTATCTCGACTTTGCCGA
GTCTGGGCAGGTCTACTTTGGGATCATTGCCCTG**TGAG**GAGGACGAACATCCAACCTTCCAAACGCCTCCCCTG
CCCCAATCCCTTTATTACCCCTCCTTCAGACACCCTCAACCTCTTCTGGCTCAAAAAGAGAATTGGGGGCTTAG
GGTCGGAACCCAAGCTTAGAACTTTAAGCAACAAGACCACCACTTCGAAACCTGGGATTGAGGAATGTGTGGCCT
GCACAGTGAAGTGCTGGCAACCACTAAGAATTCAAACCTGGGGCCTCCAGAACTCACTGGGGCCTACAGCTTTGAT
CCCTGACATCTGGAATCTGGAGACCAGGGAGCCTTTGGTTCTGGCCAGAATGCTGCAGGACTTGAGAAGACCTCA
CCTAGAAATTGACACAAGTGGACCTTAGGCCTTCCTCTCTCCAGATGTTTCCAGACTTCCTTGAGACACGGAGCC
CAGCCCTCCCCATGGAGCCAGCTCCCTCTATTTATGTTTGCACCTGTGATTATTTATTATTTATTATTTAT
TTATTTACAGATGAATGIATTTATTTGGGAGACCGGGGTATCCTGGGGACCCAATGTAGGAGCTGCCTTGGCTC
AGACATGTTTTCCGTGAAAACGGAGGCTGAACAATAGGCTGTTCCCATGTAGCCCCCTGGCCTCTGTGCCTTCTT
TTGATTATGTTTTTTAAATATTATCTGATTAAGTTGTCTAAACAATGCTGATTTGGTGACCAACTGTCACTCAT
TGCTGAGGCCTCTGCTCCCCAGGGAGTTGTGTCTGTAATCGGCCTACTATTAGTGCGGAGAAATAAAGGTTGCT
TAGGAAAGAA

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FIGURE 525

MSTESMIRDVELAEEALPKKTGGPQGSRRCLFLSLFSFLIVAGATTLCLLHFGVIGPQREESPRDLSLISPLAQ
AVRSSSRTPSDKPVAVHVVANPQAEGQLQWLNRRANALLANGVELRDNQLVVPSEGLYLIYSQVLFKGQGCPTHV
LLTHTISRIAVSYQTKVNLLSAIKSPCQRETPEGAEAKPWYEP IYLGGVFQLEKGDRLSAEINRPDYLDFAESGQ
VYFGIIAL

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FIGURE 526A

CATGGCGGCGACTGCGGCAAAGCGAGAGCCTCGGAGACGCCGCTGCCGCCAGCACAGCCGGAGATCTGAGCCGAC
ACTGGGGGCGAGTCCGCGAGCCCCGCACTCTCTCGATGAGTCGGAGAAGTCCCGTTGTATCAGAGTAAGATGGACG
GTAGCTTTGATTGTGATTGTGGTGAGCTGGAGCCACCTGATCACTAACAAAAGACATCTTCTGTTAACCAACAGC
CGCCAGGCTTCCCTGTTGAAATAAATATATAGCAACAAAGGAAAAAAGAAGCAAAACGGAAATAGTGCTTACCAG
CACCTTAGAATGATGCTGCTCAGGACCAGTCCAACACTGAATGTATCTGCACTGTGAGGAGAATGTTTCATAGAAG
CCTGTTGTGTGCATATTTATTACATTTTTTGTTAAATGTTAAATCGTTTAGCACGGTAATCTGAGTGACAGTATG
TCATTTCAATCCGTTTGAGTTTCTGTTTTCTGTTAAATGTCTGCAGAGTTGCTGCCCTTTCTTGAACATAGAGT
ACTGCAATCTTTTTAATTCTCAATATGAATAGAGCTTTTTGAGCTTTAAATCTAAGGGGAAGTTCGACAGGCCTGT
TTGGCATATGCAATGAACATCAAGAAACCATCTTGCTGTGGAAGCATAATTATTTTTCTTCTCCCTTTTTGAAAG
ATCTTTCCCTTTGATGCCAGTTTTCTTCTTGTTTACACAAGTTCAATTTGAAAGGAAAAGGCAATAGTAAGGGT
TTCAAAATGGCAGAGAAATTTGAAAGTCTCATGAACATTCATGGTTTTGATCTGGGTTCTAGGTATATGGACTTA
AAACCATTTGGGTTGTGGAGGCAATGGCTTGGTTTTCTGCTGTAGACAATGACTGTGACAAAAGAGTAGCCATC
AAGAAAATTGTCCTTACTGATCCCCAGAGTGTCAAACATGCTCTACGTGAAATCAAATTATTAGAAGACTTGAC
CATGATAACATTTGTGAAAGTGTTGAGATTCTTGGTCCCAGTGGAAAGCCAATTAACAGACGATGTGGGCTCTCTT
ACGGAAGTGAACAGTGTTTACATTGTTTCAGGAGTACATGGAGACAGACTTGGCTAATGTGCTGGAGCAGGGCCCT
TTACTGGAAGAGCATGCCAGGCTTTTCATGTATCAGCTGCTACGGGGGCTCAAGTATATTCACCTCTGCAAATGTA
CTGCACAGAGATCTCAAACCAGCTAATCTTTTCATTAATACGGAAGACTTGGTGCTGAAGATAGGTGACTTTGGT
CTTGACCGGATCATGGATCCTCATTATTTCCATAAGGGTCATCTTTCTGAAGGATTGGTTACTAAATGGTACAGA
TCTCCACGTCCTTTACTTTCTCCTAATAATTATACTAAAGCCATTGACATGTGGGCTGCAGGCTGCATCTTTGCT
GAAATGCTGACTGGTAAAACCTTTTTTGAGGTGCACATGAACTTGAACAGATGCAGCTGATTTTAGAATCTATT
CCTGTTGTACATGAGGAAGATCGTCAGGAGCTTCTCAGCGTAATTCAGTTTACATTAGAAATGACATGACTGAG
CCACACAAACCTTTAACTCAGCTGCTTCCAGGAATTAGTCGAGAAGCACTGGATTTCCCTGGAACAAATTTTGACA
TTTAGCCCCATGGATCGGTTAACAGCAGAAGAAGCACTCTCCCATCCTTACATGAGCATATATTCTTTTCCAATG
GATGAGCCAATTTCAAGCCATCCTTTTCATATTGAAGATGAAGTTGATGATATTTTGCTTATGGATGAAACTCAC
AGTCACATTTATACTGGGAAAGGTATCATGATTGTCAGTTTTCAGAGCATGATTGGCCTGTACATAACAACCTT
GATATTGATGAAGTTCAGCTTGATCCAAGAGCTCTGTCCGATGTCAGTATGAAGAAGAAGTACAAGTTGATCCC
CGAAAATATTTGGATGGAGATCGGGAAAAGTATCTGGAGGATCCTGCTTTTGATACCAATTACTCTACTGAGCCT
TGTTGGCAATACTCAGATCATCATGAAAACAAATATTGTGATCTGGAGTGTAGCCATACTTGTAACACAAAACG
AGGTCATCATCATATTTAGATAACTTAGTTTGAGAGAGAGTGAAGTTAACCATTACTATGAACCCAAGCTTATT
ATAGATCTTTCCAATTGGAAAGAACAAGCAAAGAAAAATCTGATAAGAAAGGCAAATCAAATGTGAAAGGAAT
GGATTGGTTAAAGCCAGATAGCGCTAGAGGAAGCATCACAGCAACTGGCTGGAAAAGAAAGGGAAAAGAATCAG
GGATTTGATTTTGATTCTTTATTGCAGGAACATTTAGCTTAGTTCCAGCATGAGCCTACTGATGTTGTTGAT
AAATTAATGACTTGAATAGCTCAGTGTCCTCAACTAGAATTGAAAAGTTTGATATCAAAGTCAGTAAGCCAAGAA
AAACAGGAAAAAGGAATGGCAAATCTGGCTCAATTAGAAGCCTTGTAACAGTCTTCTTGGGACAGCCAGTTTGTG
AGTGGTGGGGAGGACTGTTTTTTCATAAATCAGTTTTGTGAGGTAAGGAAGGATGAACAAGTTGAGAAGGAAAAC
ACTTACACTAGTTACTTGGACAAGTTCTTTAGCAGGAAAAGAAGATACTGAAATGCTAGAACTGAGCCAGTAGAG
GATGGGAAGCTTGGGGAGAGAGGACATGAGGAAGGATTTCTGAACAACAGTGGGGAGTTCTCTTTAACAAGCAG
CTCGAGTCCATAGGCATCCACAGTTTCAGAGTCCAGTTGGGTCACCACTTAAGTCAATACAGGCCACATTAACA
CCTTCTGCTATGAAATCTTCCCTCAAATTCCTCATCAAACATACAGCAGCATTCTGAAACATCTGAACATAAAC
ACTCAGCAGACATTTATCTTTGTATTCTTCATGAAATGTGTTTTGTCTTTTTTTATTACTAGTGTTAAGTCATT
TTTTACTTGAATCAGATGGTGTCAATTTAGTAAGGATTTTATGAGTTCTTGTTTTTTAAATCCAGACTTTCTTTT
TCTACATGTGAGATAGTTTTCAATTTAACTGGCATGTCATTTGCACACAAAAATAAAGACTAGAGCAAAATAATG
CAACGCAGGAGGAGAAAAGAAATGCACTAAGACAAGAACATTCTCTCATAGAACATTGATCTGTTTTACAGGAAA
CAAACCTTGCCCTTGAAATTTACACAGTGAGACTGTACATAATTGCATGAAAATAGCTATTTTTTTTCTAAGACAT
TTTTCAATTCATGAATATTTTCAAGTTTTTCTACTGTACACATTTCTTAAACACATGATACCAGCAGCAACTGA
AAATGAATGCCGAATTTGGTACACATGTGTTATCTACCTCAAGGTAACAAGAGTATGTGGCAAAACATATACCAC
CCATAGTGCTTCACAAAATGCACTTCTATTTAGCCAGCGTTTATTGTAGTAACTATTCTTAATAAACTCACTC
ACTGTTTATAAATGTTCTGGTATGCATTCTTTATAGTGAAGTGTTAATACATCACATCTTATTTATTTTAGCAAA

FIGURE 526B

TCAGTATATTTTCTGTATTTAATTATAAAAAATTAACCTTAGTTTTTAAAATTTATTTGCAAATATACTTTTTCCA
TTTGGCACTATGGTTTGTTCCTACCTAGCTGCATCTATAATGTCAGCTTATCCTAAGGCTGTCCACGTACTTAA
TTTACTTAAGTGTTTCAATTTAAGTAACGTGCTCACTGTGTATAGGAATTTGTATTTTGGAGGTGCTTGATCTATC
TACAAAGAAAAATTAATTAGGAATTACTTTATTATAAAATGCTCCTAGAAGTCTTAATTGTGTTTATTTTTTAAA
AAAACAAATGTTAGACTTGTGTGCATGGAAGTAATTAAGGTACATCATTATTGTAGTTTGAAAGTTGTACATGAT
AAGACATTTTGTCTTTTACTGTATGTTTTTACTGAATGATCTATTCCCCATCCCAAGGCAAGCATGAATAAAATTA
GGTTAAACGTAGCATGTGGCATCGCAGTCTCTTAGAATTTGTTTCATCTATTTTATTTTATTGAATACTGTCTGT
ATCTTTGGTTATCCTGTTTGAAGAAAAAGGACAAATAAAACATGGCCAGCAAATACAAAAAAAAAAAAA

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FIGURE 527

MAEKFESLMNIHGFDLGSRYMDLKPLGCGGNGLVFSAVDNDCKRVAIKKIVLTD PQSVKHALREIKIIRRLDHD
NIVKVFEILGPSGSQLTDDVGSLTELSVYIVQEYMETDLANVLEQGPLEEHARLFMYQLLRGLKYIHSANVLH
RDLKPANLFINTEDLVKIGDFGLARIMDPHYSHKGHLSEGLVTKWYRSPRLLSPNNYTKAIDMWAAGCIFAEM
LTGKTLFAGAHELEQMQLILESIPVVHEEDRQELLSVIPVYIRNDMTEPHKPLTQLLPGISREALDFLEQILTF
PMDRLTAEALSHPYMSIYSFPMDEPISSHPFHIEDEVDDILLMDETHSHIYNWERYHDCQFSEHDWPVHNNFDI
DEVQLDPRALSDVTDEEEVQVDPKYLGDREKYLEDPAFDTNYSTEPQWQYSDHHENKYCDLECSHTCNYKTRS
SSYLDNLVWRESEVNHYEYEPKLIIDLSNWKEQSKEKSDKKGKSKCERNGLVKAQIALEEASQQLAGKEREKNQGF
DFDSFIAGTIQLSSQHEPTDVVDKLNLDLNSSVSQLELKSLSKSVSQEKQEKGMANLAQLEALYQSSWDSQFVSG
GEDCFFINQFCEVRKDEQVEKENTYTSYLDKFFSRKEDTEMLETEPVEDGKLGERGHEEGFLNNSGEFLFNKQLE
SIGIPQFHSPVGSPLKSIQATLTSPAMKSSPQIPHQTYSSILKHLN

FIGURE 528

GTAAAGCTAGACCGATCTCCGGGGAGCCCCGGAGTAGGCGAGCGGCGGCCAGCTAGTTGAGCGCACCCCCCG
CCCCCCCCAGCGGCGCCGCGGGCGGGCGGCGTCCAGGCGGC**ATG**GAGAAGGACGGCCTGTGCCGCGCTGACCAGCA
GTACGAATGCGTGGCGGAGATCGGGGAGGGCGCCTATGGGAAGGTGTTCAAGGCCCGCGACTTGAAGAACGGAGG
CCGTTTTCGTGGCGTTGAAGCGCGTGCGGGTGCAGACCGGCGAGGAGGGCATGCCGCTCTCCACCATCCGCGAGGT
GGCGGTGCTGAGGCACCTGGAGACCTTCGAGCACCCCAACGTGGTCAGGTTGTTTGATGTGTGCACAGTGTACG
AACAGACAGAGAAACCAAATACTTTAGTGTTTGAACATGTCGATCAAGACTTGACCACTTACTTGGATAAAGT
TCCAGAGCCTGGAGTGCCCACTGAAACCATAAAGGATATGATGTTTCAGCTTCTCCGAGGTCTGGACTTTCTTCA
TTCACACCGAGTAGTGCATCGCGATCTAAACCACAGAACATTCTGGTGACCAGCAGCGGACAAATAAACTCGC
TGACTTCGGCCTTGCCCGCATCTATAGTTTCCAGATGGCTCTAACCTCAGTGGTCGTCACGCTGTGGTACAGAGC
ACCCGAAGTCTTGCTCCAGTCCAGCTACGCCACCCCGTGGATCTCTGGAGTGTGGCTGCATATTTGCAGAAAT
GTTTCGTAGAAAGCCTCTTTTTTCGTGGAAGTTTCAAGTGTGATCAACTAGGAAAAATCTTGGACGTGATTGGACT
CCCAGGAGAAGAAGACTGGCCTAGAGATGTTGCCCTTCCCAGGCAGGCTTTTCATTCAAAATCTGCCCAACCAAT
TGAGAAGTTTGTAAACAGATATCGATGAAGTGGCAAAGACCTACTTCTGAAGTGTGTGACATTTAACCCAGCCAA
AAGAATATCTGCCTACAGTGCCCTGTCTCACCCATACTTCCAGGACCTGGAAAGGTGCAAAGAAAACCTGGATT
CCACCTGCCGCCAGCCAGAACACCTCGGAGCTGAATACAGCC**TGAG**GCCTCAGCAGCCGCCTTAAGCTGATCCT
GCGGAGAACACCCTTGGTGGCTTATGGGTCCCCCTCAGCAAGCCCTACAGAGCTGTGGAGGATTGCTATCTGGAG
GCCTTCCAGCTGCTGTCTTCTGGACAGGCTCTGCTTCTCCAAGGAAA

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FIGURE 529

MEKDGLCRADQQYECVAEIGEGAYGKVFKARDLKNNGRFVALKRVRVQTGEEGMPLSTIREVAVLRHLETFEHPN
VVRLFDVCTVSRDRETKLTLVFEHVDQDLTTYLDKVPEPGVPTETIKDMMFQLLRGLDFLHSHRVVHRDLKPQN
ILVTSSGQIKLADFGGLARIYSFQMALTSVVVTLWYRAPEVLLQSSYATPVDLWSVGCIFAEMFRRKPLFRGSSDV
DQLGKILDVIGLPGEEDWPRDVALPRQAFHSKSAQPIEKFVTDIDELGKDLLLKCLTFNPAKRISAYSALSHPYF
QDLERCKENLDShLPPSQNTSELNTA

FIGURE 530

GTCTGCCCTCTCTGCTCGCCCTGCCTAGCTTGAGGATCTGTACCCCCAGCCATGAGGATTATCGCCCTCCTCGCT
GCTATTCTCTTGGTAGCCCTCCAGGTCCGGGCAGGCCCACTCCAGGCAAGAGGTGATGAGGCTCCAGGCCAGGAG
CAGCGTGGGCCAGAAGACCAGGACATATCTATTTCTTTGCATGGGATAAAAGCTCTGCTCTTCAGGTTTCAGGC
TCAACAAGGGGCATGGTCTGCTCTTGAGATTAGTATTCTGCCGGCGAACAGAACTTCGTGTTGGGAACTGCCTC
ATTGGTGGTGTGAGTTTCACATACTGCTGCACGCGTGTGATTAACGTTCTGCTGTCCAAGAGAATGTCATGCTG
GGAACGCCATCATCGGTGGTGTAGCTTCACATGCTTCTGCAGCTGAGCTTGCAGAATAGAGAAAAATGAGCTCA
TAATTTGCTTTGAGAGCTACAGGAAATGGTTGTTTCTCCTATACTTTGTCCTTAACATCTTTCTTGATCCTAAAT
ATATATCTCGTAACAAG

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FIGURE 531

MRIIALLAAILLVALQVRAGPLQARGDEAPGQEQRGPEQDISISFAWDKSSALQVSGSTRGMVCSCRLVFCRRT
ELRVGNCLIGGVSFYCCTRVD

FIGURE 532

CAGTCTCA**ATG**GGGGCACTGGGGCTGGAGGGCAGGGGTGGGAGGCTCCAGGGGAGGGGTTCCCTCCTGCTAGCTG
TGGCAGGAGCCACTTCTCTGGTGACCTTGTTGCTGGCGGTGCCTATCACTGTCCTGGCTGTGCTGGCCTTAGTGC
CCCAGGATCAGGGAGGACTGGTAACGGAGACGGCCGACCCCGGGGCACAGGCCAGCAAGGACTGGGGTTTCAGA
AGCTGCCAGAGGAGGAGCCAGAAACAGATCTCAGCCCCGGGCTCCCAGCTGCCCCACCTCATAGGCGCTCCGCTGA
AGGGGCAGGGGCTAGGCTGGGAGACGACGAAGGAACAGGCGTTTCTGACGAGCGGGACGCAGTTCTCGGACGCCG
AGGGGCTGGCGCTCCCCGAGGACGGCCTCTATTACCTCTACTGTCTCGTCCGCTACCGGGGCCGGGCGCCCCCTG
GCGGCGGGGACCCCCAGGGCCGCTCGGTACGCTGCGCAGCTCTCTGTACCGGGCGGGGGCGCCTACGGGCCGG
GCACTCCCGAGCTGCTGCTCGAGGGCGCCGAGACGGTGACTCCAGTGCTGGACCCGGCCAGGAGACAAGGGTACG
GGCCTCTCTGGTACACGAGCGTGGGGTTTCGGCGGCCTGGTGCAGCTCCGGAGGGGCGAGAGGGTGTACGTCAACA
TCAGTCACCCCGATATGGTGGACTTCGCGAGAGGGAAGACCTTCTTTGGGGCCGTGATGGTGGGGTGAGGGAATA
TGAGTGCGTGGTGCCAGTGCGTGAATATTGGGGGCCCGACGCCAGGACCCCATGGCAGTGGGAAAAATGTAGG
AGACTGTTTGAAATTGATTTTGAACCTGATGAAAATAAAGAATGGAAAGCTTCAGTGCTGCCGATAAA

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FIGURE 533

MGALGLEGRGGRLQGRGSLLLAVAGATSLVTLLAVPITVLAVLALVPQDQGGLGFRSCQRRSQKQISAPGSQLP
TS

FIGURE 534

CCCAGAGCAGCGCTCGCCACCTCCCCCGGCCTGGGCAGCGCTCGCCGGGGAGTCCAGCGGTGTCCTGTGGAGC
TGCCGCC**ATG**CCCCGCGGCGGGCGCGCGGCTGCCGGACCCTCGGTCTCCCGGCGCTGCTACTGCTGCTGCTGCT
CCGGCCGCGGCGACGCGGGGCATCAGTGCCCTCCCCCATGTCCGTGGAACACGCAGACATCTGGGTCAAGAG
CTACAGCTTGTAAGTCCAGGGAGCGGTACATTTGTAAGTCTGGTTTCAAGCGTAAAGCCGGCACGTCCAGCCTGAC
GGAGTGCCTGTTGAACAAGGCCACGAATGTCGCCCACTGGACAACCCCCAGTCTCAAATGCATTAGAGACCCTGC
CCTGGTTTACCAAAGGCCAGCGCCACCCTCCACAGTAACGACGGCAGGGGTGACCCACAGCCAGAGAGCCTCTC
CCCTTCTGGAAGAGCCCGCAGCTTCATCTCCAGCTCAAACAACACAGCGGCCACAACAGCAGCTATTGTCCC
GGGCTCCCAGCTGATGCCTTCAAATCACCTTCCACAGGAACACAGAGATAAGCAGTCATGAGTCCTCCACGG
CACCCCTCTCAGACAACAGCCAAGAACTGGGAACACAGCATCCGCTCCACAGCCGCCAGGTGTGTATCC
ACAGGGCCACAGCGACCACTGTGGCTATCTCCAGTCCACTGTCCTGCTGTGTGGGCTGAGCGCTGTGTCTCT
CCTGGCATGCTACCTCAAGTCAAGGCAAACCTCCCCGCTGGCCAGCGTTGAAATGGAAGCCATGGAGGCTCTGCC
GGTGAAGTTGGGGGACCAGCAGCAGAGATGAAGACTTGGAAGTCTCTCACCACCTA**TGA**AACTCGGGGAAACC
AGCCAGCTAAGTCCGGAGTGAAGGAGCCTCTCTGCTTTAGCTAAAGACGACTGAGAAGAGGTGCAAGGAAGCGG
GCTCCAGGAGCAAGCTCACCAGGCCTCTCAGAAGTCCAGCAGGATCTCACGGACTGCCGGGTGGCGCCTCCTG
CGCGAGGGAGCAGGTTCTCCGCATTCCCATGGGCACCACCTGCCTGCCTGTCGTGCCTTGGACCCAGGGCCCAGC
TTCCCAGGAGAGACCAAGGCTTCTGAGCAGGATTTTTATTTTATTACAGTGTGAGCTGCCTGGAATACATGTGG
TAATGAAATAAAAAACCTGCCCCGAATCTTCCGTCCCTCATCTAACTTGCAGTTTACAGAGAAAAGTGACATAC
CCAAAGCTCTCTGTCAATTACAAGGCTTCTCCTGGCGTGGGAGACGTCTACAGGGAAGACACCAGCGTTTGGGCT
TCTAACCACCTGTCTCCAGCTGCTCTGCACACATGGACAGGGACCTGGGAAAGGTGGGAGAGATGCTGAGCCCA
GCGAATCCTCTCCATTGAAGGATTCAGGAAGAAGAAAACCAACTCAGTGCCATTTTACGAATATATGCGTTTAT
ATTTATACTTCTTGTCTATTATATCTATACATTATATATTATTTGTATTTTGACATTGTACCTTGATAAACAA
AATAAACATCTATTTTCAATATTTTAAAATGCA

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FIGURE 535

MAPRRARGCRTLGLPALLLLLLLRPPATRGITCPPPMSVEHADIWVKSYSLYSRERYICNSGFKRKAGTSSLTEC
VLNKATNVAHWTTPSLKCIRDPALVHQRPAAPPSTVTTAGVTPQPESLSPSGKEPAASSPSSNNTAATTAAIVPGS
QLMPSPKSPSTGTTEISSHESHGTPSQTTAKNWELTASASHQPPGVYPQGHSDTTVAISTSTVLLCGLSAVSLLA
CYLKSRTPLASVEMEAMEALPVTWGTSSRDEDLENCSHHL

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FIGURE 536

CTGAAGCTTGCATGCCTGCAGGTCGACCCACGCGTCCGCGGACGCGTGGGCGGACGCGTGGGTTTTTCCTTTCTT
CCAGAAGGAGATTTAACCATAGTAGAAAGAATGGAGAATATTAAGTGCCTTCCTTCTGTGGGCTGTGATTTTCA
GAGGGGAATGCTAAGAGGTGATTTTCAATGTTGGGACTCAAAGGTGAAGACACTGAAGGACAGAAATTTTGGCAG
AGGAAAGATCTTCTTCGGTCACCATACTTGAGTTAGCTCTAGGGAAGTGGAGGTTTCCATTGGAATTCTATAGC
TTCTTCCAGGTCATAGTGTCTGCCCCACCTTCCAGTATCTCCTGATATGCAGCATGAATGAAAATGGCAAGTT
TCCTGGCCTTCCTTCTGTCTCAACTTTCTGTGTCTGCCTCCTTTTGTCTCAGCTGCTCATGCCTCACTCAGCTCAGT
TTTCTGTGCTTGGACCCTCTGGGCCCATCCTGGCCATGGTGGGTGAAGACGCTGATCTGCCCTGTCACCTGTTCC
CGACCATGAGTGCAGAGACCATGGAGCTGAAGTGGGTGAGTTCCAGCCTAAGGCAGGTGGTGAACGTGTATGCAG
ATGGAAGGAAGTGAAGACAGGCAGAGTGCACCGTATCGAGGGAGAACTTCGATTCTGCGGGATGGCATCACTG
CAGGGAAGGCTGCTCTCCGAATACACAACGTACAGCCTCTGACAGTGGAAAGTACTTGTGTTATTTCCAAGATG
GTGACTTCTATGAAAAAGCCCTGGTGGAGCTGAAGGTTGCAGCACTGGGTTCTGATCTTCAGTTGATGTGAAGG
GTTACAAGGATGGAGGGATCCATCTGGAGTGCAGGTCCACTGGCTGGTACCCCCAACCCCAATAACAGTGGAGCA
ACAACAAGGGAGAGAACATCCCGACTGTGGAAGCACCTGTGGTTGCAGACGGAGTGGGCCCTGTATGCAGTAGCAG
CATCTGTGATCATGAGAGGCAGCTCTGGGGAGGGTGTATCCTGTACCATCAGAAGTTCCCTCCTCGGCCTGGAAA
AGACAGCCAGCATTTCCATCGCAGACCCCTTCTTCAGGAGCGCCCAGAGGTGGATCGCCGCCCTGGCACGGACCC
TGCCTGTCTTGTCTGTCTTCTTGGGGGAGCCGGTTACTTCTGTGGCAACAGCAGGAGGAAAAAAGACTCAGT
TCAGAAAGAAAAAGAGAGAGCAAGAGTTGAGAGAAATGGCATGGAGCACAAATGAAGCAAGAACAAAGCACAAAGAG
TGAAGCTCCTGGAGGAACTCAGATGGAGAAGTATCCAGTATGCATCTCGGGGAGAGAGACATTACGCCCTATAATG
AATGGAAAAAGGCCCTCTTCAAGCCTGCGGATGTGATTCTGGATCCAAAAACAGCAACCCCATCCTCCTTGT
CTGAGGACCAGAGGAGTGTGCAGCGTGCCAAGGAGCCCCAGGATCTGCCAGACAACCCTGAGAGATTTAATTGGC
ATTATTGTGTTCTCGGCTGTGAGAGCTTCATATCAGGGAGACATTACTGGGAGGTGGAGGTAGGGGACAGGAAAG
AGTGGCATATAGGGGTGTGCAGTAAGAATGTGCAGAGAAAAGGCTGGGTCAAATGACACCTGAGAATGGATTCT
GGACTATGGGGCTGACTGATGGGAATAAGTATCGGACTCTAACTGAGCCCAGAACCAACCTGAAACTTCCTAAGC
CCCCTAAGAAAGTGGGGGTCTTCTGGACTATGAGACTGGAGATATCTCATTCTACAATGCTGTGGATGGATCGC
ATATTCTACTTTTCTGGACGCTCTCTCTGAGGCTCTATATCCTGTTTTTCAGAAATTTGACCTTGGAGCCCCA
CGGCCCTGAGTATTTGTCCAGCGTGAAAAGAAGAAGAGAGTTTCTCCAATTCTGACCGAGTGTGATCATTCCCT
AGAGACACCAGTAACCCCGGGCTTAGCTAACGAAAGTGGGGAGCCTCAGGCTGAAGTAATTTTCTCTGCTTCTC
CCTGCCCAGCTCAGAGCTGAGGGCTCCCCCTCCACAGCAACCAATCACACCATAAAGCTACAAGCACGCACTG
AAGCACTTTACTGATACTCATTCAATTATTATCATATGACAGTTGTTTGGAGTTTGGTACCATCTTATTTTCCCTTA
TACAGATAAGGAACTGGGGTGCAGAAAAGTGAATTGACTACAAAGTAGACATGACTAGTTAACAACACAGCTGG
GATCTAAACAGCAATAACTAATTAATGGAGAAGTAAATGCTCTGAGTGTCTGTGTTATGAGCTTTGGTGGAT
GTCACTCCTTTAATCCTCGCAACACCCTGTGCGGTAGTCTCATTAGCAAGTATGGAAGTTGAGGCAGGGCAACA
TTAAGCAACTTACATAACTCATGCAGTAATTTCTGCAGTTGGGAGATGTTTCCAGCTTCAGTCCCCGGCCCTATGGC
CGTTCTTTTCCACCCTGTTTCTTCCCCCATAGGAAGAACCCACCTGTAGCCCTGAGGTTCTTTTCCAGGATGGC
TCCAGGATAAGGATCACTGTAGGTGGTTGTGGAGTTGACACCCCTGTTGACTCCTTCCAGCTGATTGTGAGAGC
CTTAGACCCAGCACGCCTTGGATTAGCTTTGCAGAGTGTCTTGGTTGAGAGAATAACCTCACCGTACCCACATGA
CACGTGATTTGGAAAGAGACTAGAGGCCACACTTGATAAATCATGGGGAACAGATGTGTTCCACCCAACAAATGT
GATAAGTGATCATGCAGCCAGAGCCAGCCTTCTTCAATCAAGGTTTCCAGGCAGAGCAAATACCCTAGAGATTT
TCTGTGATATAGGAAATTTGGATGAAGGGAGCTAGAAGAAATACAGGGATTTTTTTTTTTTTTAAAGATGGAGTC
TTACTCTGTTGCTAGGCTGGAGTGCAGTGGTGCATCTCAGCTCCCTGCAACCTCCACCTCCTGGGTTCAAACAA
TTCTCCTGCCTCAGCCTCCCGAGTACTGGGAATATAGGTGCACGCCACCACACCAACAAATTTTGTACTTTTA
GTACAGATGAGGGTTCACTATGTTGGCCAGGATGGTCTCGATCTCTTGACCTCATGATCCACCCACCTCGGTCTC
CCAAAGTGCTGGGATTACAGGCTTGAGCCACCGGTGACCGGCTTACAGGGATATTTTTAATCCCGTTATGGACT
CTGTCTCCAGGAGAGGGGTCTATCCACCCCTGCTCATTGGTGGATGTTAAACCAATATTCTTTCAACTGCTGCC
TGCTAGGGAAAAACTACTCCTCATTATCATCATTATTATTGCTCTCCACTGTATCCCTCTACCTGGCATGTGCT
TGTCAGGTTCTAGTTGTTCAATAAATTTGTTAATAATGCTGAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AA

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FIGURE 537

MKMASFLAFLLLNFRVCLLLLQLLMPHSAQFSVLGSPGPIILAMVGEDADLPCHLFPTMSAETMELKQVSSSLRQV
VNVYADGKEVEDRQSAPYRGRTSILRDGITAGKAALRIHNVITASDSGKYLQYFQDGFYEKALVELKVAALGSDL
HVDVKGYKDGGIHLECRSTGWYPQPQIQWSNNKGENIPTVEAPVVADGVGLYAVAASVIMRGSSGEGVSTIRSS
LLGLEKTASISIA DPFFRSAQRWIAALARTLPVLLLLLLGGAGYFLWQQQEEKKTQFRKKKREQELREMAWSTMKQ
EQSTRVKLLEELRWRSIQYASRGERHSAYNEWKKALFKPADVILDPKTANPILLVSEDQRSVQRAKEPQDLDPNP
ERFNWHYCVLGCEFSISGRHYWEVEVGDRKEWHIGVCSKNVQRKGWVKMTPENGFTMGLTDGNKYRTLTEPRTN
LKLPPKPKKVGVF LDYETGDISFYNAVDGSHIHTFLDVSFSEALYPVFRILITTLEPTALSICPA

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FIGURE 538

GGCACGAGGGGAGTGGAAGTTCTCCGGCAGCCCTGAGATCTCAAGAGTGACATTTGTGAGACCAGCTAATTTGA
TTAAAATTCTCTTGGAATCAGCTTTGCTAGTATCATACCTGTGCCAGATTTTCATC**ATGGG**AAACAGCTGTTACAA
CATAGTAGCCACTCTGTTGCTGGTCCTCAACTTTGAGAGGACAAGATCATTGCAGGATCCTTGTAGTAACTGCCC
AGCTGGTACATTCTGTGATAATAACAGGAATCAGATTTGCAGTCCCTGTCTCCAAATAGTTTCTCCAGCGCAGG
TGGACAAAGGACCTGTGACATATGCAGGCAGTGTAAGGTGTTTTTCAGGACCAGGAAGGAGTGTTTCTCCACCAG
CAATGCAGAGTGTGACTGCACTCCAGGGTTTTCACTGCCTGGGGGCAGGATGCAGCATGTGTGAACAGGATTGTAA
ACAAGGTCAAGAACTGACAAAAAAGGTTGTAAAGACTGTTGCTTTGGGACATTTAACGATCAGAAACGTGGCAT
CTGTGACCCCTGGACAAACTGTTCTTTGGATGGAAGTCTGTGCTTGTGAATGGGACGAAGGAGAGGGACGTGGT
CTGTGGACCATCTCCAGCCGACCTCTCTCCGGGAGCATCCTCTGTGACCCCGCCTGCCCCCTGCGAGAGAGCCAGG
ACACTCTCCGCGAGATCATCTCCTTCTTTCTTGCCTGACGTGCGACTGCGTTGCTCTTCTGCTGTTCTTCTCTCAC
GCTCCGTTTCTCTGTTGTTAAACGGGGCAGAAAGAACTCCTGTATATATTCAAACAACCATTTATGAGACCAGT
ACAAACTACTCAAGAGGAAGATGGCTGTAGCTGCCGATTTCCAGAAGAAGAAGGAGGATGTGAAGT**GTGAAA**
TGGAAGTCAATAGGGCTGTTGGGACTTTCTTGAAAAGAAGCAAGGAAATATGAGTCATCCGCTATCACAGCTTTC
AAAAGCAAGAACACCATCCTACATAATACCCAGGATTCCCCAACACACGTTCTTTTCTAAATGCCAATGAGTTG
GCCTTTAAAAATGCACCACTTTTTTTTTTTTTTTTGGACAGGGTCTCACTCTGTCACCCAGGCTGGAGTGCAGTGGC
ACCACCATGGCTCTCTGCAGCCTTGACCTCTGGGAGCTCAAGTGATCCTCCTGCCTCAGTCTCCTGAGTAGCTGG
AACTACAAGGAAGGGCCACCACACCTGACTAACTTTTTTGTTTTTTGTGTTGGTAAAGATGGCATTTCACCATGTT
GTACAGGCTGGTCTCAAACCTCCTAGGTTCACTTTGGCCTCCCAAAGTGCTGGGATTACAGACATGAAGTGCCAGG
CCCGGCCAAAATAATGCACCACTTTTAACAGAACAGACAGATGAGGACAGAGCTGGTGATAAAAAAAAAAAAAAA
AAAGCATTTTCTAGATACCACTTAACAGGTTTGAGCTAGTTTTTTTGAAATCCAAAGAAAATTATAGTTTAAATT
CAATTACATAGTCCAGTGGTCCAACATAATTATAATCAAAATCAATGCAGGTTTGTTTTTTGGTGCTAATATGA
CATATGACAATAAGCCACGAGGTGCAGTAAGTACCCGACTAAAGTTTCCGTGGGTCTGTGCATGTAACACGACAT
GCTCCACCGTCAGGGGGGAGTATGAGCAGAGTGCCTGAGTTTAGGGTCAAGGACAAAAACCTCAGGCCTGGAGG
AAGTTTTGGAAGAGTTCAAGTGTCTGTATATCCTATGGTCTTCTCCATCCTCACACCTTCTGCCTTTGTCTCTGC
TCCCTTTTAAGCCAGGTTACATTCTAAAAATTCTTAACCTTTTAACATAATATTTTATACCAAAGCCAATAAATGA
ACTGCATATGAAA

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FIGURE 539

MGNSCYNIVATLLLVLNFERTRSLQDPCSNCPAGTFCDNNRNQICSPCPPNSFSSAGGQRTCDICRQCKGVFRT
KECSSTSNAECDCTPGFHC LGAGCSMCEQDCKQGQELTKKGCKDCCFGTFNDQKRGICRPWTNCSLDGKSVLVN
TKERDVVCGPSPADLSPGASSVTPPAPAREPGHSPQIIISFFLALTSTALLFLLFFLTLRFSVVKRGRKKLLYIFK
QPFMRPVQTTQEEDGCSCRFPEEEEGGCEL

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FIGURE 540A

ACGGCTGCGAGAAGACGACAGAAGGGGAGAGGTGAATATTATTGAATGAAAATGGCTGACAGAAGTGGGAAGATT
ATTCCAGGACAAGTGTATATTGAGGTGGAATATGATTATGAATATGAAGCAAAGGACAGAAAGATTGTGATAAAA
CAAGGGGAGAGGTACATCTTGTTGAAAAAGACCAATGATGACTGGTGGCAAGTCAAGCCAGATGAAAACCTCCAA
GCGTTTTATGTGCCAGCCAGTATGTGAGGGAGGTCACGCGCAAAGCTCTCATGCCACCTGTTAAGCAGGTAGCT
GGTCTGCCAAATAACTCCACGAAAAATAATGCAGAGTTTGCATCTTCAGAGATCAACAGAAAAATGTGAACAAATTG
CCTGAGCTTTCAAGTTTCGAAAGCCATCGTCATCTGTTCAAGGAACAGGTCTTATTCTGTGATGCCAATCAGAAT
TTTGGACCCAGTTATAATCAAGGTCAGACTGTCAACCTAAGCCTGGACCTGACCCATAATAACGGAAAGTTTAAAC
AATGACTCACATTCTCCTAAAGTTTCCAGCCAGAATAGGACACGCTCATTGGTCAATTTCCCGGTCCAGAGTTC
TTGGATGTAGAGAAAACTAGCTTCTCCAGGAACAATCTTGTGATTCCGCAGGAGAAGGCTCTGAAAGAATACAT
CAAGATTCTGAATCTGGTGATGAACCTTAGCAGCAGCTCCACTGAACAGATAAGGGCAACCACACCTCCAAATCAA
GGAAGGCCAGATTCTCCTGTCTATGCTAACCTTCAAGAACTGAAAATATCCAGTCTGCTCTTCCCCCACTTCTCT
GGGAGCCCGGCAATTCAGATTAATGGAGAATGGGAAACTCATAAAGACAGCTCAGGGCGTTGCTATTACTATAAC
AGAGGGACACAGGAAAGAACTTGGAAACCTCCTCGTTGGACCCGGGATGCAAGCATCAGCAAAGGAGATTTCCAA
AATCCAGGGGATCAAGAGTGGCTCAAGCATGTTGATGATCAAGGTAGACAATATTACTACAGTGCAGACGGATCT
CGGTCAGAATGGGAATTGCCAAAGTATAATGCTTCATCCAGCAGCAAAGAGAAAAATAATTTAAAGTAGGAGCCTG
GACAGGCGGCTGCAAGAACCAATAGTATTAACAAAGTGGAGACATAGCACCATTGTATTGGACACTAATGATAAG
GAATCTCCAACCTGCCTCAAAACCTGCTTTTCTGAAAATGAGTCTTCTCCCTCCTCACCAAAGCACCAAGATACA
GATCAAGAGAAAATATGGATTATTAAATGTAACAAAAATTGCTGAAAATGGGAAAAAGGTTGAAAGAAGTGGTTG
TCTTCTTGGGCGGTGTTGCAGGGTTCATCTTTACTTTTTTACCAAACTCAAGGAAGTAGCACAAAGTTGGTTTGGC
AGTAATCAGTCCAAACCAGAGTTCACAGTGGACCTCAAGGGGGCAACAATTGAGATGGCTTCAAAGGATAAATCC
AGCAAAAAGAATGTATTTGAGCTGAAAACCTCGTCAAGGAACAGAAGTCTAATTCAGTCTGACAATGACACTGTT
ATTAATGATTGGTTTAAAGTTCCTTAGTAGTACAATCAATAATCAGGCAGTAGAACTGATGAAGGAATTGAAGAG
GAGATACCGGATTCACCAGGAATAGAAAAGCATGATAAAGAAAAGGAACAAAAGGATCCCAAAAAGCTTCGTTCC
TTTAAAGTATCTAGCATAGATTCTTCAGAACAGAAAAAAACCAAGAAAACTTAAAGAAGTTTCTTACACGACGC
CCCCTTTGCAAGCTGTTTCGTGAAAAGGTTATATTAAAGATCAGGTATTTGGATCCAATCTCGCTAATCTGTGT
CAGAGAGAGAATGGCACAGTACCAAAGTTTGTGAAGTTATGTATTGAACATGTTGAAGAACATGGTTTGGATATT
GATGGGATATACAGAGTAAGTGGCAACCTCGCAGTGATCCAGAACTAAGGTTTGCAGTCAATCATGATGAGAAA
TTGGACTTGAATGACAGTAAATGGGAAGATATTCATGTCACTTACTGGAGCCCTCAAATGTTTTTTTCGAGAATTA
CCAGAACCTCTTTTTTACATTTAATCATTTTTAATGATTTTTGTAAATGCAATTAAGCAAGAACCAAGACCGCGAGTC
GCTGCTGTTAAGGACCTAATCAGACAGTTGCCAAAGCCAAACCAAGACACAATGCAGATTCTTTTCCGACATCTC
AGAAGAGTTATAGAAAATGGAGAGAAAAATCGAATGACCTATCAGAGTATAGCAATTGTTTTTGGTCCCCTCTA
TTAAACCAGAAAAAGAGACTGGTAATATAGCAGTTTCACTGTGTACCAGAATCAGATTGTAGAATTAATTTCTT
CTGGAAGTGAAGTCCATCTTCGGACGTTGAATTTCTTACTGAAGACAACCTGTGGAATAGAAGCTGGATTCCATCAG
ATTTCAAATGTTTATACACAATGTATTTTTTTTTTGGACCAAGCAGTGACTCTTTGATTTTGCATTTTTTTTTT
GAGGGATCAGAAGGGGAGAGTCGAGATGTGTGTTAGGCCCTCATATTTGCTGCTTTGTTGCAAGTTGATA
TAACTGCGTGTAATTATGAATTCATTTTATCCTGAATGTTTGCATTTCACTCTGAATTTTCAAGTAAATCAAA
ACTTAAATTTCTAACCAGTCATATACACTGGATAATTTGGTAAGAAAACCTGTATTTTTTTTTTCCCTGAAATTGGAT
AATGTACTTTCTTCTCAAGATTCATGACTTGATAGAACAATACTTTCAGTTATGTTGCAAAGGCTCTTGGGCATT
TTAAACAAAATGAAGTATATCCATTTTGAACCTGTGTATTTCTTTTTCGGGGTTTCTGCATGCAGTGGCAGTCT
TAAGTGCCAAAATTCATTATAACCCCAAAATAACCCCTTGATGAAGGCTTGCTGTCTTTTACTGTGTTACACAGC
ATCCTTACTGGATATCTTAGTTGCTTGTGTTGGGCAGCACACTAATATTACTTAAACACTGTGATATACTGGAGT
TTTAGTTAGCGGAAGTCAGTTCAGGGCATTTTAGGGCTGTCTTGCTATACTGAATTGTAGCTAACAATCCTAATT
ATATCTAGTACCATACTGAGTTATTGGTATGACCCTGTGGAAACACACATTATTTTATGTAATATAGGCTAAAG
ACTTAATGTCTTTTAGCTTGTGTATATAATTGTGTTGTATAGTCTCAGAGTACATTCTAACCCTACATTTCTAAT
CATTTGTTATTGGTAATCTTTTCTGTGAATATTAGGTTTCTCCAGAAATAGTCCGTTATTTGGGAAAGTTAACTG
TGTGCACTTTTATAGATATTAACCTACATTTACAGGCAAACTCACTGTAATGAGAATGGTACTGGAAAAATACTGAATA
GACTTGCTAAATGGCACATGCACTACAAGAGGAACCTTTTGGGTTATTTAATATGTACAGAAAACATTAGAAAAA
ATTTATTACAGAATTCTAATTCAGTATGAATAGTGGAAACCCACCTGTAAATTAGATGGATGTTGGATGGAAAA

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FIGURE 540B

TGACATTGCTAAATTTGAGAATTTCTTTTTACCTACTAATGTAGATTGCTTTGTATAATAAAACACAGGGTTTGG
AAGGTTTTGTTACAGGGAGCATGGTCTGTTGAAGATTTTTAAAATGTATTTTCTAGATTAACTTCTGTACATGA
AATGTCTAATAAAACTCTAAGAGGCTTAGAGATTTTCCATTGGAAATGTGCATTTTGGTTTCTAATTTTTTTGT
TTTTTCATTTACTGGCATACTGTTATACCTCATTTTTTAAAATCAACTGAATCCAATATTTCTGTGGCAAATAA
CACTTTCTCATTTTATACCTTTTCTCCTCTCTTCCATGCCAACATTTCTCCACCCACAACGTACACTTTTTATT
TCTCCATCAATATTTGAAAGCGAGTGATTTGTGACCAGGATTTTTTTTTCTTAGGGTTGCATTTATAATTTACAG
ATTGCCTTCCTTGGGAACAAGTATTTTTTTGTATGATCTGTCTAAAAACCTCTCACCTGAATTTGTGGTAGAAA
GTCTGTATTTGTTGTTGTGAGCGTGTTAAATTGATAACAAACCAACTACTTGATAGCTAAAGCAGATTGTTTCG
GGTGGGGAGAAAAAGCCCTAAATCAGAAATGTTTATATTTGCCTAAAGTTGTCCTTAATAATAACAATATGCTTTAG
ATCTTGCTTATTTAGTGATTGTATACCAGGAAAACAATTAGACTCAAATCAGTGATGTTCTTGTTCTTGGTGTTT
ATGAACATATATCAAAGATTAAAATTGTCCTGTGTTTCTTGTTTCAAGGTACGTGTGTGTGTGTGTGTGTGTGTG
TGTGTGTGTGTGTGTGAAGTCTTAAATGTTTTATTAGTCTACAGCTAATCAGTTTATTGTAATATTGTATGTA
CAGTGAGATTAAATGTCTTGCGTTTTCATCCTTTGTGAATTAATAATCTCACTTGTTTTGTAATAACAAAGCTAG
TAATATTTTCTGTCTTGACAGCTTGGTTTTATAGTAGAAAAATATATTAAGCTGAAATAAATTATCAGTGGA
TTTTAAAAAAGAAAAAAAAAAAAAAAAAAAA

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FIGURE 541

MKMADRSGKIIPGQVYIEVEYDYEYEAKDRKIVIKQGERYILVKKTNDDWWQVKPDENSKAFYVPAQYVREVTRK
ALMPPVKQVAGLPNNSTKIMQSLHLQRSTENVNKLPELSSFGKPSSSVQGTGLIRDANQNFGPSYNQGQTVNLSL
DLTHNNGKFNNDSHSPKVSSQNRTRSF GHFPGPEFLDVEKTSFSQEQSCDSAGEGSERIHQDSESGDELSSSSTE
QIRATTPPNQGRPDSPVYANLQELKISQSALPPLPGSPAIIQINGEWETHKDSSGRCYYYNRGTQERTWKPPRWTR
DASISKGDFQNPQDQEWLKHVDDQGRQYYYSADGSRSEWELPKYNASSQQQREIIKSRSLDRRLQEP IVLTKWRH
STIVLDTNDKESPTASKPCFPENESSPSPKHQD TDQEKYGLLNVT KIAENGKKVRKNWLSSWAVLQGSLLFTK
TQGSSTSWFGSNQSKPEFTVDLKGAT IEMASKDKSSKKNVFELKTRQGT ELLIQSDNDTVINDWFKVLSSTINNQ
AVETDEGIEEEEIPDSPGIEKHDKEKEQKDPKKLRSFKVSSIDSSEQKTKKNLKKFLTRRPTLQAVREKGYIKDQ
VFGSNLANLCQRENGTVPKFVKLCIEHVEEHGLDIDGIYRVSGNLAVIQKLRF AVNHDEKLDLND SKWEDIHVIT
GALKMFFRELPEPLFTFNHFND FVNAIKQEPRPRVA AVKDLIRQLPKPNQDTMQILFRHLRRVIENGEKNRMTYQ
SIAIVFGPTLLKPEKETGNI AVHTVYQNQIVELILLELSSIFGR

ATGACCATGGAAACAGTTGAATCCCAGCATGATGGAAGTATAACAGCTTCTTTGACAGAGAGCAAGTCTGCTCAT
GTGCAGACTCAGACTGGGCAAATTTCAATCCCTGCTTTAGCTCAGTGCACTGAGCTGAGATCAGGCACCAGAAGA
GGCTCCCCAGCTGTAACCTCTAGTGCAGTTACCTTCGGGCCAAACTATACATGTCCAGGGAGTAATTCAGACACCA
CAGCCATGGGTATTTCAGTCATCAGAAATACACACCGTTTCAGGTAGCAGCAATTGCAGAGACAGATGAATCTGCA
GAATCAGAAGGTGTAATTGATTCTCATAAACGTAGAGAAATCCTTTACGAAGACCCTCTTATAGGAAAATACTG
AATGAACTGTCCTCTGATGTGCCTGGTGTTCCTAAGATTGAAGAAGAGAGATCAGAGGAAGAAGGAACACCACCT
AGTATTGCTACCATGGCAGTACCAACTAGCATATATCAGACTAGCACGGGGCAATACATTGCTATAGCCCAAGGT
GGAACAATCCAGATTTCTAACCAGGATCTGATGGTGTTCAGGGACTGCAGGCATTAACAATGACAAAATTCAGGA
GCTCCTCCACCAGGTGCTACAATTGTACAGTACGCAGCACAAATCAGCTGATGGCACACAGCAGTTCTTTGTCCCA
GGCAGCCAGGTTGTTGTTCAAGCTGCCACTGGTGACATGCCAACTTACCAGATCCGAGCTCCTACTGCTGCTTTG
CCACAGGGAGTGGTGATGGCTGCATCGCCCGGAAGTTTGACAGTCCCCAGCAGCTGGCAGAAGAAGCAACACGC
AAACGAGAGCTGAGGCTAATGAAAAACAGAGAAGCTGCCCCGGGAGTGTCGCAGGAAGAAGAAAGAATATGTCAA
TGCTTTGAAAATCGTGTGGCTGTGCTTGAAAACCAAAACAAGACTCTCATTGAGGAACTCAAGGCCCTCAAAGAT
CTTTATTGCCATAAAGTAGAG**TAA**CTGTCTTTGACTTGGACCTTGTTTACTCTAATCAAGGCAGGAGATGCAGCA
GTCCTACTTATTGCCATGTGGACTTGIGGGAAGGACACGTGTGACCCTTAAGAATCCAGTTTGGATTAGTGTGTTG
AAATTGAATTGGGAATGTTGTTCCAGGATGTGGAATGCAGCGTGATCACACTTACCGAGCTTACTTTGATCTGTT
TGTCAATAGCATGCAAAAATGCTTTGTTTGCCCTTTGCTTCTGCTTTTTTTTCAGGGAAGCTGCCAAAGAATGTC
GACGTCGAAAGAAAGAATATGTAAAATGCCTGGAGAGCCGAGTTGCAGTGCTGGAAGTCCAGAACAAGAAGCTTA
TAGAGGAACTTGAAACCTTGAAAGACATTTGTTCTCCCAAACTGATTACTAGAAATATTTAACTATGAACTGAT
TACAGA

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FIGURE 543

MTMETVESQHDGSITASLTESKSAHVQTQTGQISIPALAQCELSGTRRGSPAVTLVQLPSGQTIHVQGVITP
QPWVIQSSEIHTVQVAAIAETDESAESEGVIDSHKRREILSRPSYRKILNELSSDVPKIEERSEEGTPP
SIATMAVPTSIYQTSTGQYIAIAQGGTIQISNPGSDGVQGLQALMTNSGAPPPGATIVQYAAQSADGTQQFFVP
GSQVVVQAATGDMPTYQIRAPTAALPQGVVMAASPGSLHSPQQLAEEATRKRELRLMKNREAARECRRKKKEYVK
CLENRVAVLENQNKTLIEELKALKDLYCHKVE

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FIGURE 544

GAATTCGGCCAAAGAGGCCTATGCTTCTCTGAAGACTTGCAGCAAGGCTTGCTGAGGCTCACAGAAGATAGCCCC
 AGTGTGTTTGGAGTGGTTTTGAATGTGATTCTGAGATCAGACTGACTGAGCTGGAATCCTGGCTTTATATCTTACC
 AGCTACACAACCTTGGAGTCTTAGAAATTTTTCTTTTCAATAAGCAGTCATCCTTACTTTCCCTCAAGATGACA
 AACAGTTTCGTTCTTCTGCCCAGTTTATAAAGATCTGGAGCCATTACGTAATTTTTTTTATTTAGTTTTCTTGTT
 GGAATTATTGGAAGTTGTTTTGCAACCTGGGCTTTTATACAGAAGAATACGAATCACAGGTGTGTGAGCATCTAC
 TTAATTAATTTGCTTACAGCCGATTTTCTGCTTACTCTGGCATTACCAGTGAAAATTGTTGTTGACTTGGGTGTG
 GCACCTTGAAGCTGAAGATATTCCACTGCCAAGTAACAGCCTGCCTCATCTATATCAATATGTATTTATCAATT
 ATCTTCTTAGCATTTGTGAGCATTGACCGCTGTCTTCAGCTGACACACAGCTGCAAGATCTACCGAATACAAGAA
 CCCGGATTTGCCAAAATGATATCAACCGTTGTGTGGCTAATGGTCCTTCTTATAATGGTGCCAAATATGATGATT
 CCCATCAAAGACATCAAGGAAAAGTCAAATGTGGGTGTATGGAGTTTAAAAAGGAATTTGGAAGAAATTGGCAT
 TTGCTGACAAATTTTATATGTGTAGCAATATTTTAAATTTCTCAGCCATCATTTTAAATATCCAATTGCCTTGTA
 ATTCGACAGCTCTACAGAAACAAAGATAATGAAAATTACCCAAATGTGAAAAAGGCTCTCATCAACATACTTTTA
 GTGACCACGGGCTACATCATATGCTTTGTTTCTTACCACATTGTCCGAATCCCGTATACCCTCAGCCAGACAGAA
 GTCATAACTGATTGCTCAACCAGGATTTCACTCTTCAAAGCCAAAGAGGCTACACTGCTCCTGGCTGTGTGGAAC
 CTGTGCTTTGATCCTATCCTGTACTATCACCTCTCAAAGCATTCCGCTCAAAGGTCACAGAGCTTTTGCTCA
 CCTAAAGAGACCAAGGCTCAGAAAGAAAAATTAAGATGTGAAAATAATGCATATAAGACAGGATTTTTTGTGCTA
 CCAATTCTGGCCTTACTGGACCATAAAGTTAATTATAGCTTTGAAAGATAAAAAAAAAAAAAAGCGGCCGC

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FIGURE 545

MTNSSFFCPVYKDLEPFTYFFYLVLVGIIGSCFATWAFIQKNTNHRCSVSIYLINLLTADFLTLALPVKIVVDL
GVAPWKLKIFHCQVTACLIYINMYLSIIFLAFVSDRCLQLTHSCKIYRIQEPGFAKMISTVVWLMVLLIMVPM
MIPKDIKEKSNVGCMEFKKEFGRNWHLLTNFICVAIFLNFSAILISNCLVIRQLYRNKDNENYPNVKKALINI
LLVTTGYIICFVPYHIVRIPYTLSQTEVITDCSTRISLFKAKEATLLLA VSNLCFDPILYYHLSKAFRSKVTETF
ASPKETKAQKEKLR CENNA

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FIGURE 546

GAATTCGGCACGAGTCAGGGAAGCAGCCCCGGCGGCCAGCAGGGAGCTCAGGACAGAGCAGGCTCCCTGGGAAGC
CTCCGGGTGATAGGGGTGTTCCAGCTGCGGCGCTCTGGGGGTTTCAGAGGGGGATCTTGAATGAACAAATGAATGA
ACTGCTTTCTGGGCAAACAGCCACAGCCAGAGGAGCCTGTGATTGGCAGAAAGAAGCCAGGGTGTGCAAGTCTCC
CCAACAGCCTCGAGTGGCCTGCAGTCACAGGGAACCCCTCAGGAAGACCTTCCGGGCAGAGACCAGAGGGAAGCCC
ATCTCTCCAGCAGAACTGCTTGGATTTTTCTACCAGGAGGCTCAGGGCTCTGCAACAATGATAGCAGAAGCTGAT
GGCATCTAGAGATCTAGGCTGGGACTAGCACAGCATCACTTCTACCACCTTTCTGTTGGTTCACAGCAACTCACCAT
GCCAGTGCAGATTCAAGGGGAGGAGAAATAGAGTCCACTTCTTGATGGGAGGCGTGACATAGAATGAGGATGAA
GATTACAACACTTCCATCAGTTACGGTGATGAATACCCTGATTATTTAGACTCCATTGTGGTTTTGGAGGACTTA
TCCCCCTTGGAAGCCAGGGTGACCAGGATCTTCCTGGTGGTGGTCTACAGCATCGTCTGCTTCCTCGGGATTCTG
GGCAATGGTCTGGTGATCATCATTGCCACCTTCAAGATGAAGAAGACAGTGAACATGGTCTGGTTCCCTCAACCTG
GCAGTGGCAGATTTCTGTTCACGTCTTCCTCCCAATCCATATCACCTATGCCGCCATGGACTACCACTGGGT
TTCGGGACAGCCATGTGCAAGATCAGCAACTTCCTTCTCATCCACAACATGTTACACAGCGTCTTCCTGCTGACC
ATCATCAGCTCTGACCGCTGCATCTCTGTGCTCCTCCCTGTCTGGTCCCAGAACCACCGCAGCGTTCCGCTGGCT
TACATGGCCTGCATGGTCATCTGGGTCCCTGGCTTTCTTCTTGAGTTCCCATCTCTCGTCTTCCGGGACACAGCC
AACCTGCATGGGAAAATATCTGCTTCAACAACCTTCAGCCTGTCCACACCTGGGTCTTCCTCGTGGCCCACTCAC
TCCCAAATGGACCCTGTGGGGTATAGCCGGCACATGGTGGTGACTGTCACCCGCTTCCTCTGTGGCTTCCTGGTC
CCAGTCCTCATCATCACAGCTTGCTACCTCACCATCGTGTGCAAACCTGCAGCGCAACCGCCTGGCCAAGACCAAG
AAGCCCTTCAAGATTATTGTGACCATCATCATTACCTTCTTCCTCTGCTGGTGCCCTACCACACACTCAACCTC
CTAGAGCTCCACCACACTGCCATGCCTGGCTCTGTCTTCAGCCTGGGTTTGCCCTGGCCACTGCCCTTGCCATT
GCCAACAGCTGCATGAACCCCATCTGTATGTTTTCATGGGTGAGGACTTCAAGAAGTTCAAGGTGGCCCTCTTC
TCTCGCCTGGTCAATGCTCTAAGTGAAGATACAGGCCACTCTTCCTACCCAGCCATAGAAGCTTTACCAAGATG
TCATCAATGAATGAGAGGACTTCTATGAATGAGAGGGAGACCGGCATGCTTTGATCCTCACTGTGGAACCCCTCA
ATGGACTCTCTCAACCCAGGGACACCCAAGGATATGTCTTCTGAAGATCAAGGCAAGAACCTCTTTAGCATCCAC
CAATTTTCACTGCATTTTGCATGGGATGAACAGTGTTTTATGCTGGGAATCTAGGGCCTGGAACCCCTTTCTTCT
AGTGGACAGAACATGCTGTGTTCCATACAGCCTTGGACTAGCAATTTATGCTTCTTGGGAGGCCAGCCTTGACTG
ACTCAAAGCAAAAAGGAAGAATTC

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FIGURE 547

MEDEDYNTSISYGDEYPDYLDLSIVVLEDLSPLEARVTRIFLVVVYSIVCFLGILGNGLV III IATFKMKKTVMNVW
FLNLAVADFLFNVFLPIHITYAAMDYHWWFGTAMCKISNFLLIHNMFTSVFLLTIISSDRCISVLLPVWSQNHR
VRLAYMACMVIWVLAFFLSSPSLVFRDTANLHGKISCENNFSLSTPGSSSWPTHSQMDPVGYSRHMVTVTRFLC
GFLVPVLIITACYLTIVCKLQRNRLAKTKKPKIIVTIIITFFLCWCPYHTLNLELHHTAMPGSVFSLGLPLAT
ALAIANSCMNPILYVFMGQDFKKFKVALFSRLVNALSEDTHGSSYPSHRSFTKMSSMNERTSMNERETGML

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FIGURE 548

TGAAGGCTGGTTGTTTCAGACTGAGCTTCTCGCTGCCTGTACACCCGCCAACAGCTTTCAGAAGAAGGTGACTGGTGCTGCCTGAGGAATACCAGTGGGCAAGAGAATTAGCATTTCTGGAGCATCTGCTGTCTGAGCAGCCCTGGGTGCTCCACTTTCTGGGCACGTGAGGTTGGGCCTTGGCCGCTGAGCCCTTGAGTTGGTCACTTGAACCTTGGGAATA TTGAGATTATATTCTCCTGCCTTTTTAAAAAGATGGACTTCAGCAGAAATCTTTATGATATTGGGGAACAACCTGGA CAGTGAAGATCTGGCCTCCCTCAAGTTCTTGAGCCTGGACTACATTCCGCAAAGGAAGCAAGAACCCATCAAGGA TGCTTTGATGTTATTCCAGAGACTCCAGGAAAAGAGAATGTTGGAGGAAAGCAATCTGTCCTTCTGAAAGGAGCT GCTCTTCCGAATTAATAGACTGGATTTGCTGATTACCTACCTAAACACTAGAAAGGAGGAGATGGAAGGGAACT TCAGACACCAGGCAGGGCTCAAATTTCTGCCTACAGGTTCCACTTCTGCCGCATGAGCTGGGCTGAAGCAAACAG CCAGTGCCAGACACAGTCTGTACCTTTCTGGCGGAGGGTCGATCATCTATTAATAAGGGTCATGCTCTATCAGAT TTCAGAAGAAGTGAGCAGATCAGAATTGAGGTCTTTTAAGTTTCTTTTGCAAGAGGAAATCTCCAAATGCAAAC TGGATGATGACATGAACCTGCTGGATATTTTCATAGAGATGGAGAAGAGGGTCATCCTGGGAGAAGGAAAGTTGGA CATCCTGAAAAGAGTCTGTGCCCAAATCAACAAGAGCCTGCTGAAGATAATCAACGACTATGAAGAATTCAGCAA AGGGGAGGAGTTGTGTGGGGTAATGACAATCTCGGACTCTCCAAGAGAACAGGATAGTGAATCACAGACTTTGGA CAAAGTTTACCAAATGAAAAGCAAACCTCGGGGATACTGTCTGATCATCAACAATCACAAATTTTGCAAAGCAGC GGAGAAAGTGCCCAAACCTTCACAGCATTAGGGACAGGAATGGAACACACTTGGATGCAGGGGCTTTGACCACGAC CTTTGAAGAGCTTCATTTTGAGATCAAGCCCCACGATGACTGCACAGTAGAGCAAATCTATGAGATTTTGAAAT CTACCAACTCATGGACCACAGTAACATGGACTGCTTCATCTGCTGTATCCTCTCCCATGGAGACAAGGGCATCAT CTATGGCACTGATGGACAGGAGGCCCATCTATGAGCTGACATCTCAGTTCCTGCTGTTGAAGTGCCCTTCCCT TGCTGGAAAACCCAAAGTGTTTTTTTATTAGGCTTGTCAGGGGGATAACTACCAGAAAGGTATACCTGTTGAGAC TGATTAGAGGAGCAACCCTATTTAGAAATGGATTTATCATCACCTCAAACGAGATATATCCCGGATGAGGCTGA CTTTCTGCTGGGGATGGCCACTGTGAATAACTGTGTTTCTTACCGAAACCTGCAGAGGGAACCTGGTACATCCA GTCACTTTGCCAGAGCCTGAGAGAGCGATGTCTCGAGGCGATGATATTCTCACCATCCTGACTGAAGTGAAC TAAGTAAGCAACAAGGATGACAAGAAAAACATGGGGAAACAGATGCCTCAGCCTACTTTACACTAAGAAAAAA ACTTGTCTTCCCTTCTGATTGATGGTGCTATTTTGTTTGTTTGTTTGTTTGTTTTTGTTTTTGAGACAGAATCTCG CTCTGTGCGCCAGGCTGGAGTGCAGTGGCGTGATCTCGGCTCACCGBAAGCTCCGCCTCCCGGGTTCAGGCCATT CTCCTGCCTCAGCCTCCCGAGTAGCTGGGACTACAGGGGCCGCCACCACACCTGGCTAATTTTTTAAAAATATT TTTAGTAGAGACAGGGTTTCACTGTGTTAGCCAGGGTGGTCTTGATCTCCTGACCTCGTGATCCACCCACCTCGG CCTCCCAAAGTGCTGGGATTACAGGCGTGAGCCACCGCGCCTGGCCGATGGTACTATTTAGATATAACACTATGT TTATTTACTAATTTTCTAGATTTTCTACTTTATTAATTGTTTTGCACTTTTTTATAAGAGCTAAAGTTAAATAGG ATATTAACAACAATAACACTGTCTCCTTTCTCTTACGCTTAAGGCTTTGGGAATGTTTTTAGCTGGTGGCAATAA ATACCAGACACGTACAAAATCCAGCTATGAATATAGAGGGCTTATGATTGAGATTGTTATCTATCAACTATAAGC CCACTGTTAATATTCTATTAACCTTTAATTCTCTTTCAAAGCTAAATTCCACACTACCACATTAAAAAAATTAGAA AGTAGCCACGTATGGTGGCTCATGTCTATAATCCCAGCACTTTGGGAGGTTGAGGTGGGAGGATTTGCTTGAACC CAAGAGGTCCAAGGCTGCAGTGAGCCATGTTACACCGCTGCACTCAAGCTTGGGTGACAGAGCAAGACCCCGTC CCCAAAAAAATTTTTTTTTTAATAAAACCAAATTTGTTTGAAAACTTTTTAAAAATTCAAATGATTTTTTACAAGTT TTAAATAAGCTCTCCCAAACCTTGCTTTATGCCTTCTTATTGCTTTTTATGATATATATATGCTTGGCTAACTATA TTTGCTTTTTTGCTAACAATGCTCTGGGGTCTTTTTATGCATTTGCATTTGCTCTTTCATCTCTGCTTGGATTATT TTAAATCATTAGGAATTAAGTTATCTTTAAAAATTTAAGTATCTTTTTTCCAAACATTTTTTAAATAGAATAAAAT ATAATTTGATCTTAAAAA

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FIGURE 549

MDFSRNLYDIGEQLDSEDLASLKFLSLDYIPQRKQEPKDALMLFQRLQEKRMLEESNLSFLKELLFRINRLDLL
ITYLNTRKEEMERELQTPGRAQISAYRFHFCRMSWAEANSQCQTQSVPFWRRVDHLLIRVMLYQISEEVSRSELR
SFKFLLQEEISKCKLDDDMNLLDIFIEMEKRVILGEGKLDILKRVCAQINKSLLKIINDYEEFSKGEELCGVMTI
SDSPREQDSESQTLDKVYQMSKPRGYCLIINNHNFAKAREKVPKLHSIRDRNGTHLDAGALTTTFFELHFEIKP
HDDCTVEQIYEILKIYQLMDHSNMDCFICCILSHGDKGIYGTGQEAPIYELTSQFTGLKCPSLAGKPKVFFIQ
ACQGDNYQKGIPVETDSEEQPYLEMDLSSPQTRYIPDEADFLGMATVNNCVSYRNPAEGTWYIQSLCQSLRERC
PRGDDILTILTEVNYEVSNKDDKKNMGKQMPQPTFTLRKKLVFPD

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FIGURE 550

GTTTTTTTCCCTTCTGAGCA**ATG**GAGCTTACCATCTTTATCCTGAGACTGGCCATTTACATCCTGACATTTCCCT
TGACCTGCTGAACCTTTCTGGGCTTGTGGAGCTGGATATGCAAAAAATGGTTCCCCTACTTCTTGGTGAGGTTCA
CTGTGATATACAACGAACAGATGGCAAGCAAGAAGCGGGAGCTCTTCAGTAACCTGCAGGAGTTTGCGGGCCCCCT
CCGGGAAACTCTCCCTGCTGGAAGTGGGCTGTGGCACGGGGGCCAACTTCAAGTTCTACCCACCTGGGTGCAGGG
TGACCTGTATTGACCCCAACCCCAACTTTGAGAAGTTTTTGATCAAGAGCATTGCAGAGAACCGACACCTGCAGT
TTGAGCGCTTTGTGGTAGCTGCCGGGGAGAACATGCACCAGGTGGCTGATGGCTCTGTGGATGTGGTGGTCTGCA
CCCTGGTGCTGTGCTCTGTGAAGAACCAGGAGCGGATTCTCCGCGAGGTGTGCAGAGTGCTGAGACCGGGAGGGG
CTTTCTATTTTCATGGAGCATGTGGCAGCTGAGTGTTCGACTTGGAATTACTTCTGGCAACAAGTCCTGGATCCTG
CCTGGCACCTTCTGTTTGATGGGTGCAACCTGACCAGAGAGAGCTGGAAGGCCCTGGAGCGGGCCAGCTTCTCTA
AGCTGAAGCTGCAGCACATCCAGGCCCCACTGTCCTGGGAGTTGGTGCGCCCTCATATCTATGGATATGCTGTGA
AA**TAGT**GTGAGCTGGCAGTTAAGAGCTGAATGGCTCAAAGAATTTAAAGCTTCAGTTTTACATTTAAAATGCTAA
GTGGGAGAAGAGAAAACCTTTTTTTTTGGGGGGCGGTTTTTTTTGGTTTGTGTTGGTTTTTTTTTTTTTTTTGGCAA
GACTCCGTCTCAAAAAAAAAAAAAAAAAAAAAAGAGTAGAGACAGGGAGACAGGGTCTCACTGTGTTGCCTAG
GCCGGTCTTGAACCTCCTGGGCTCAAGTGATTCTCCACCTTGACCTCCTAAATTGTTGGGATTACAGGTGTGAGA
CAGTGCACCTGGCCGAAATAGCTCAAGTTTCTGAAAAACAAATCTGAATCTATTTGTTATTCTTAGCGTCACTGG
TCTGGCTTTTCAAGATTAACATACAAGGTTGCCACACCTAGTTCTGCCCAGCTTTATGTCTTTTATTCCAGTATTC
CACCAAAGTTTGTCTTCTGCTGATTCCAGTTCTCAAGTCTTAAGATAAAGATTGTAAGTACAGTTTAGTATATCC
ATAAACTATTTGAGGTGGTTAAGGTTCTTGGGTTTCAATTTTCTTAATACTTTGCTGAATATTGTAGATTGTAGG
CAATGAAAAAGTCTACTAAATTAGGAAAACCTTGAATAATTAGGTATCCTAGGTAAGAGCCCCTAAACATCAAGC
AATCTGTGAGTCTGTAAAGAAATAAATATTTTTTGGATTATTCTTATCTAATTCACCCCTGTTGGAAGATGATT
TCTTTGTTCTTTGCAACTATGGAAGCTGTGAAAATCATCACAAGTGCCTCTGAAAGCGAGTGTTAGGTTGGTTAG
AGGGTTTAATATTTTCTGCAATGTTTTGTAGGAATTTTAATAAATGTAGTATATTTTCTGAGATGATTTTGTAAA
AGTACTATTTTAAATATCAATCAACCAATAAATTCACATTTGTGTTAGGAACAG

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FIGURE 551

MELTIFILRLAIYILTFPLYLLNFLGLWSWICKKWFYFLVRFTVIYNEQMASKKRELF
SNLQEFAGPSGKLSLL
EVGCGTGANFKFYPPGCRVTCIDPNPNFEKFLIKSIAENRHLQFERFVVAAGENMHQVADGSVDVVCTLVLC
SV
KNQERILREVCRLRPGGAFYFMEHVAAECSTWNYFWQQVLDPAWHLLFDGCNLTRESWKALERASF
SKLKLQHI
QAPLSWELVRPHIYGAVK

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FIGURE 552

GGGCAACGGAGGGGAAATAAAAGGGAACGGCTCCGAATCTGCCCCAGCGGCCGCTGCGAGACCTCGGCGCCGACA
 TCGCGACAGCGAAGCGCTTTGCAGGCCAGGAAGGTCCCTCTATGTGCTGCTGAGCCGGTCTGGACGCGACGAG
 CCCGCCCTCGGTCTTCGGAGCAGAATTCGAAAAACGGAAGGACTGGAAATGGCAGACCATATGATGGCAATGAA
 CCACGGGCGCTTCCCCGACGGCACCAATGGGCTGCACCATCACCTTGCCACCGCATGGGCATGGGGCAGTTCCC
 GAGCCCCCATCACCACCAGCAGCAGCAGCCCCAGCACGCCTTCAACGCCCTAATGGGCGAGCACATACACTACGG
 CGCGGGCAACATGAATGCCACGAGCGGCATCAGGCATGCGATGGGGCCGGGGACTGTGAACGGAGGGCACCCCCC
 GAGCGCGCTGGCCCCCGCGCCAGGTTTAACAACCTCCAGTTCATGGGTCCCCCGGTGGCCAGCCAGGGAGGCTC
 CCTGCCGGCCAGCATGCAGCTGCAGAAGCTCAACAACCAGTATTTCAACCATCACCCCTACCCCCACAACCACTA
 CATGCCGGATTTGCACCCTGCTGCAGGCCACCAGATGAACGGGACAAACCAGCACTTCCGAGATTGCAACCCCAA
 GCACAGCGGCGGCAGCAGCACCCCCGGCGGCTCGGGCGGCAGCAGCACCCCCGGCGGCTCTGGCAGCAGCTCGGG
 CGGCGGCGCGGGCAGCAGCAACAGCGGCGGCGGCAGCGGCAGCGGCAACATGCCCGCTCCGTGGCCACGTCCC
 CGCTGCAATGCTGCCGCCCAATGTTCATAGACACTGATTTTCATCGACGAGGAAGTTCTTATGTCCTTGTTGATAGA
 AATGGGTTTGGACCGCATCAAGGAGCTGCCCCGAACCTCTGGCTGGGGCAAACGAGTTTGATTTTATGACGGACTT
 CGTGTGCAAACAGCAGCCCAGCAGAGTGAGCTGTGACTCGATCGAAACCCCGGCGAAAGAAATCAAACCCCCAA
 CTTCTTCGGCGTGAATTTAAAGAAACATTCCCTTAGACACAGTATCTCACTTTTTCAGATCTTGAAAGGTTTGAGA
 ACTTGGAACAAAGTAACTATAAACTTGTACAAATTGTTTTTAAAAAAATTGCTGCCACTTTTTTTCCTGTTT
 TTGTTTCGTTTTTGTAGCCTTGACATTCACCCACCTCCCTTATGTAGTTGAAATATCTAGCTAACTTGGTCTTTT
 TCGTTGTTTGTTTTTACTCCTTTCCCTCACTTTCTCCAGTGCTCAACTGTTAGATATTAATCTTGGCAAACCTGCT
 TAATCTTGTGGATTTTGTAGATGGTTTTCAAATGACTGAACTGCATTTCAGATTTACGAGTGAAAGGAAAAATTGCA
 TTAGTTGGTTGCATGAACCTCGAAGGGCAGATATTACTGCACAACTGCCATCTCGCTTCATTTTTTAACTATG
 CATTTGAGTACAGACTAATTTTTTAAATATGCTAACTGGAAGATTAAACAGATGTGGGCCAACTGTTCTGGAT
 CAGGAAAGTCATACTGTTCACTTTCAAGTTGGCTGTCCCCCGCGCCCCCCCCACCCCCATATGTACAGATGA
 TAATAGGGTGTGGAATGTCGTAGTGGCAAACATTTACAGATTTTTTATTTTGTCTGTCTTCAACATTTTTGA
 CACTGTGCTAATAGTTATATTAGTACATGAAAAGATACTACTGTGTTGAAAGCTTTTTAGGAAATTTTGACAGT
 ATTTTGTACAAAACATTTTTTTGAAAAAATACTTGTTAATTTATTCTATTTTAATTTGCCAATGTCAATAAAAA
 GTTAAGAAAAAAAAAAAAAAAAAAAAA

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FIGURE 553

MADHMMAMNHGRFPDGTNGLHHHPAHRMGMGQFSPHHHQQQPQHAFNALMGEHIHYGAGNMNATSGIRHAMGP
GTVNGGHPPSALAPAARFNNSQFMGPPVASQGGSLPASMQLQKLNNQYFNHHPYPHNHYMPDLHPAAGHQMNGTN
QHFRDCNPKHSGGSSTPGGSGGSSTPGGSGSSSGGAGSSNSGGSGSGNMPASVAHVPAAMLPPNVIDTDFIDE
EVLMSLVIEMGLDRIKELPELWLGQNEFDFMTDFVCKQQPSRVSC

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FIGURE 554

ACACGGACCAAGGAGTCTAACACGTGCGCGAGTCGGGGGCTCGCACGAAAGCCGCCGTGGCGCAATGAAGGTGAA
GGCCGGCGCGCTCGCCGGCCGAGGTGGGATCCCGAGGCCTCTCCAGTCCGCCGAGGGCGCACCACGGCCCGTCT
CGCCCGCCGCGCCGGGGAGGTGGAGCACGAGCGCACGTGTTAGGACCCGAAAAGATGGTGAACATATGCCTGGGCAG
GGCGAAGCCAGAGGAAACTCTGGTGGAGGTCCGTAGCGGTCCTGACGTGCAAAATCGGTCTCGACCTGGGTATA
GGGGCGGGCTCCAGGCGAGGCGGTGACGCTCCTGAAAACCTTGCGCGCGCTCGCGCCACTGCGCCCGGAGCGA
TGAAGATGGTTCGCGCCCTGGACGCGGTTCTACTCCAACAGCTGCTGCTTGTGCTGCCATGTCCGCACCGGCACCA
TCCTGCTCGGCGTCTGGTATCTGATCATCAATGCTGTGGTACTGTTGATTTTATTGAGTGCCTGGCTGATCCGG
ATCAGTATAACTTTTCAAGTTCTGAACTGGGAGGTGACTTTGAGTTCATGGATGATGCCAACATGTGCATTGCCA
TTGCGATTTCTCTTCTCATGATCCTGATATGTGCTATGGCTACTTACGGAGCGTACAAGCAACGCGCAGCCTGGA
TCATCCCATTTCTTCTGTTACCAGATCTTTGACTTTGCCCTGAACATGTTGGTTGCAATCACTGTGCTTATTTATC
CAAACCTCCATTACAGGAATACATACGGCAACTGCCTCCTAATTTTCCCTACAGAGATGATGTGATGTGCTGATC
CTACCTGTTTGGTCCCTTATTATTCTTCTGTTTATTAGCATTATCTTGACTTTTAAAGGTTACTTGATTAGCTGTG
TTTGAACTGCTACCGATACATCAATGGTAGGAACTCCTCTGATGTCTGGTTTATGTTACCAGCAATGACACTA
CGGTGCTGCTACCCCGTATGATGATGCCACTGTGAATGGTGTGCCAAGGAGCCACCGCCACCTTACGTGTCTG
CCTAAGCCTTCAAGTGGGCGGAGCTGAGGGCAGCAGCTTGACTTTGCAGACATCTGAGCAATAGTTCTGTTATTT
CACTTTTGCCATGAGCCTCTCTGAGCTTGTTTGTGCTGAAATGCTACTTTTAAAATTTAGATGTTAGATTGAA
AACTGTAGTTTTCAACATATGCTTTGCTAGAACACTGTGATAGATTAACTGTAGAATTCCTCCTGTACGATTGGG
GATATAATGGGCTTCACTAACCTTCCCTAGGCATTGAAACTTCCCCCAAATCTGATGGACCTAGAAGTCTGCTTT
TGTACCTGCTGGGCCCCAAAGTTGGGCATTTTTCTCTCTGTTCCCTCTCTTTTGAAAATGTAAAATAAAACAAA
AATAGACAACTTTTCTTCAGCCATTCCAGCATAGAGAACAAAACCTTATGGAAACAGGAATGTCAATTGTGTAA
TCATTGTTCTAATTAGGTAAATAGAAGTCCTTATGTATGTGTTACAAGAATTTCCCCCACAACATCCTTTATGAC
TGAAGTTCAATGACAGTTTGTGTTTGGGTGGTAAAGGATTTTCTCCATGGCCTGAATTAAGACCATTAGAAAGCA
CCAGGCCGTGGGAGCAGTGACCATCTGCTGACTGTTCTTGTGGATCTTGTGTCCAGGGACATGGGGTGACATGCC
TCGTATGTGTTAGAGGGTGGAAATGGATGTGTTTGGCGCTGCATGGGATCTGGTGCCCTCTTCTCCTGGATTAC
ATCCCCACCCAGGGCCCGCTTTTACTAAGTGTCTGCCCTAGATTGGTTCAAGGAGGTCATCCAACCTGACTTTAT
CAAGTGGAATTGGGATATATTTGATATACTTCTGCCTAACAAACATGGAAAAGGGTTTTCTTTTCCCTGCAAGCTA
CATCCTACTGCTTTGAACTTCCAAGTATGTCTAGTCACCTTTTAAAATGTAAACATTTTACAGAAAATGAGGATT
GCCTTCCCTGTATGCGCTTTTACCTTGACTACCTGAATTGCAAGGGATTTTTATATATTCATATGTTACAAAGT
CAGCAACTCTCCTGTGGTTTATTATTGAATGTGCTGTAAATTAAGTTGTTTGCAATTAACAAGGTTTGCCCA
CAAAAAAAAAA

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FIGURE 555

MVNYAWAGRSQRKLWWRSVAVLTCKSVVRPGYRGGLQARRSTLLKTCARARATAPGAMKMVAPWTRFYNSCCLC
CHVRTGTILLGVWYLIINAVVLLILLSALADPDQYNFSSSELGGDFEFMDDANMCIAIAISLLMILICAMATYGA
YKQRAAWIIPFFCYQIFDFALNMLVAITVLIYPNSIQEYIRQLPPNFPYRDDVMSVNPTCLVLIILLFISIILTF
KGYLISCVWNCYRYINGRNSSDVLVYVTSNDTTVLLPPYDDATVNGAAKEPPPPYVSA

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FIGURE 556

GGACAACCGGCTGGGGTCCTTGCGCGCCGCGGCTCAGGGAGGAGCACCGACTGCGCCGCACCCTGAGAGATGGTT
GGTGCCATGTGGAAGGTGATTGTTTCGCTGGTCCTGTTGATGCCTGGCCCCCTGTGATGGGCTGTTTCGCTCCCTA
TACAGAAGTGTTTCCATGCCACCTAAGGGAGACTCAGGACAGCCATTATTTCTCACCCCTTACATTGAAGCTGGG
AAGATCCAAAAAGGAAGAGAATTGAGTTTGGTCGGCCCTTTCCAGGACTGAACATGAAGAGTTATGCCGGCTTC
CTCACCGTGAATAAGACTTACAACAGCAACCTCTTCTTCTGGTTCTTCCCAGCTCAGATACAGCCAGAAGATGCC
CCAGTAGTTCTCTGGCTACAGGGTGGGCCGGGAGGTTTCATCCATGTTTGGACTCTTTGTGGAACATGGGCCTTAT
GTTGTCACAAGTAACATGACCTTGCGTGACAGAGACTTCCCCCTGGACCACAACGCTCTCCATGCTTTACATTGAC
AATCCAGTGGGCACAGGCTTCAGTTTTACTGATGATACCCACGGATATGCAGTCAATGAGGACGATGTAGCACGG
GATTTATACAGTGCACATAATTGAGTTTTTCCAGATATTTCTGAATATAAAAAATAATGACTTTTATGTCACTGGG
GAGTCTTATGCAGGGAATATGTGCCAGCCATTGCACACCTCATCCATTCCCTCAACCCTGTGAGAGAGGTGAAG
ATCAACCTGAACGGAATTGCTATTGGAGATGGATATTCTGATCCCGAATCAATTATAGGGGGCTATGCAGAATTC
CTGTACCAAATTGGCTTGTTGGATGAGAAGCAAAAAAAGTACTTCCAGAAGCAGTGCCATGAATGCATAGAACAC
ATCAGGAAGCAGAACTGGTTTGAGGCCTTTGAAATACTGGATAAACTACTAGATGGCGACTTAACAAGTGATCCT
TCTTACTTCCAGAAATGTTACAGGATGTAGTAATTACTATAACTTTTTGCGGTGCACGGAACCTGAGGATCAGCTT
TACTATGTGAAATTTTTGTCACTCCAGAGGTGAGACAAGCCATCCACGTGGGGAATCAGACTTTTAAATGATGGA
ACTATAGTTGAAAAGTACTTGCGAGAAGATACAGTACAGTCAGTTAAGCCATGGTTAACTGAAATCATGAATAAT
TATAAGGTTCTGATCTACAATGGCCAACTGGACATCATCGTGCGCAGCTGCCCTGACAGAGCGCTCCTTGATGGGC
ATGGACTGGAAAGGATCCCAGGAATACAAGAAGGCAGAAAAAAAAGTTTGGAAGATCTTTAAATCTGACAGTGAA
GTGGCTGGTTACATCCGGCAAGTGGGTGACTTCCATCAGGTAATTATTTCGAGGTGGAGGACATATTTTACCCTAT
GACCAGCCTCTGAGAGCTTTTGACATGATTAATCGATTCAATTTATGGAAAAGGATGGGATCCTTATGTTGGATTAA

ACTACCTTCCAAAAGAGAACATCAGAGGTTTTTATTGCTGAAAAGAAAATCGTAAAAACAGAAAATGTCATAGG
AATAAAAAAATTATCTTTTCATATCTGCAAGATTTTTTTCATCAATAAAAAATTATCCTTGAAA

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FIGURE 557

MVGAMWKVIVSLVLLMPGPCDGLFRSLYRSVSMPPKGD SGQPLFLTPYIEAGKIQKGRELSLVGPFPGLNMKSYA
GFLTIVNKTYNSNLFFWFFPAQIQPEDAPVVLWLQGGPGGSSMFLFVEHGPYVVT SNMTLRDRDFPWTTL SMLY
IDNPVGTGFSFTDDTHGYAVNEDDVARDLYSALI QFFQIFPEYKNND FYVTGESYAGKYVPAIAHLI HSLNPVRE
VKINLNGIAIGDGYSDPESIIGGYAEFLYQIGLLDEKQKKYFQKQCHECIEHIRKQNWFEAFEILDKLLDGD LTS
DPSYFQNV TGCSNYYNFLRCTEPEDQLYYVKFLSLPEVRQAIHVGNQTFNDGTIVEKYLREDTVQSVK PWLTEIM
NNYKVL IYNGQLDIIVAAALTERSLMGMDWKGSQEYKKA EKKVWKIFKSDSEVAGYIRQVGDFHQVIIRGGGHIL
PYDQPLRAFD MINRFIYGKGWDPYVG

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FIGURE 558

CTACCTCTTCTCTCCACGCGGTTGAGAAGACCGGTCGGCCTGGGCAACCTGCGCTGAAGATGCCGGGAAACTC
CGTAGTGACGCTGGTTTGGGAATCAGACACCGCAATGAAAAAGGGGAGACACTGCGAAAGCAAACCGAGGAGAAA
GAGAAAAAAGAGAAGCCAAAATCTGATAAGACTGAAGAGATAGCAGAAGAGGAAGAAACTGTTTCCCCAAAGC
TAAACAAGTTAAAAAGAAAGCAGAGCCTTCTGAAGTTGACATGAATTCTCTAAATCCAAAAAGGCCAAAAAGAA
AGAGGAGCCATCTCAAAATGACATTTCTCCTAAAACCAAAGTTTGAGAAAGAAAAAGGAGCCCATTGAAAAGAA
AGTGGTTTCTTCTAAAACCAAAAAAGTGACAAAAAATGAGGAGCCTTCTGAGGAAGAAAATAGATGCTCCTAAGCC
CAAGAAGATGAAGAAAGAAAAGGAAATGAATGGAGAAACTAGAGAGAAAAAGCCCCAAACTGAAGAATGGATTTCC
TCATCCTGAACCGGACTGTAACCCAGTGAAGCTGCCAGTGAAGAAAGTAACAGTGAGATAGAGCAGGAAATACC
TGTGGAACAAAAAGAAGGCGCTTCTCTAATTTTCCCATATCTGAAGAACTATTAACTTCTCAAAGGCCGAGG
AGTGACCTTCTATTTCTATACAAGCAAAGACATTCCATCATGTTTACAGCGGGAAGGACTTAATTGCACAGGC
ACGGACAGGAAGTGGGAAGACATTCTCCTTTGCCATCCCTTTGATTGAGAACTTCATGGGGAAGTGAAGACAG
GAAGAGAGGCCGTGCCCCCTCAGGTACTGGTCTTGACCTACAAGAGAGTTGGCAAATCAAGTAAGCAAAGACTT
CAGTGACATCACAAAAAGCTGTGAGTGGCTTGTTTTATGGTGGAACTCCCTATGGAGGTCAATTTGAACGCAT
GAGGAATGGGATTGATATCCTGGTTGGAACACCAGGTGCTATCAAAGACCACATACAGAATGGCAAAGTAGATCT
CACCAAAGTTAAGCATGTTGTCTGGATGAAGTGGACCAGATGTTGGATATGGGATTGCTGATCAAGTGAAGA
GATTTTAAGTGTGGCATAACAAGAAAGATTCTGAAGACAATCCCCAAACATTGCTTTTTTCTGCAACTTGCCCTCA
TTGGGTATTTAATGTTGCCAAGAAATACATGAAATCTACATATGAACAGGTGGACCTGATTGGTAAAAAGACTCA
GAAAACGGCAATAACTGTGGAGCATCTGGCTATTAAGTGCCACTGGACTCAGAGGGCAGCAGTTATTGGGGATGT
CATCCGAGTATATAGTGGTCATCAAGGACGCACTATCATCTTTTGTGAAACCAAGAAAGAGCCAGGAGCTGTC
CCAGAATTCAGCTATAAAGCAGGATGCTCAGTCCTTGATGGAGACATTCCACAGAAGCAAAGGGAAATCACCTT
GAAAGGTTTTAGAAATGGTAGTTTTTGGAGTTTTTGGTGGCAACCAATGTTGCTGCACGTGGGTTAGACATCCCTGA
GGTTGATTTGGTTATACAAGCTCTCCACCAAGGATGTAGAGTCTACATTATCGATCCGGGCGGACAGGCAG
AGCTGGAAGGACGGGGGTGTGCATCTGCTTTTATCAGCACAAGGAAGAATATCAGTTAGTACAAGTGGAGCAAAA
AGCGGGAATTAAGTTCAAACGAATAGGTGTTCTTCTGCAACAGAAATAATAAAAGCTTCCAGCAAAGATGCCAT
CAGGCTTTTGGATTCCGTGCCTCCCACTGCCATTAGTCACTTCAAACAATCAGCTGAGAAGCTGATAGAGGAGAA
GGGAGCTGTGGAAGCTCTGGCAGCAGCACTGGCCCATATTTAGGTGCCACGTCCGTAGACCAGCGCTCCTTGAT
CAACTCAAATGTGGGTTTTTGTGACCATGATCTTGACGTGCTCAATTGAAATGCCAAATATTAGTTATGCTTGGAA
AGAAGTTAAAGAGCAGCTGGGCGAGGAGATTGATTCCAAAGTGAAGGGAATGGTTTTTCTCAAAGGAAAGCTGGG
TGTTTGCTTTGATGTACCTACCGCATCAGTAACAGAAATACAGGAGAAATGGCATGATTACGACGCTGGCAGCT
CTCTGTGGCCACAGAGCAACCAGAAGTGAAGGACCACGGGAAGGATATGGAGGCTTCAGGGGACAGCGGGAAGG
CAGTCGAGGCTTCAGGGGACAGCGGGACGGAAACAGAAGATTACAGAGGACAGCGGGAAGGCAGTAGAGGCCGAG
AGGACAGCGATCAGGAGGTGGCAACAAAAGTAACAGATCCCCAAAACAAAGGCCAGAAGCGGAGTTTCAGTAAAGC
ATTTGGTCAATTAAATTAGAAATAGAAGATTTATATAGCAAAAAGAGAATGATGTTTGGCAATATAGAAGTGAACAT
TATTTTTTCATGCAAAGTTAAAAGCACATTGTGCCTCCTTTTGACCACTTGCCAAGTCCCTGTCTCTTTCAGACAC
AGACAAGCTTCATTTAAATTAATTCATCTGATCATTATCATTATATACTTTATTGTTACTTCATCAGTTTTCTCT
TTTGAAAGGTGTATGAATTCATTATTTTATTTCTAATGTATTATCTGTAGATTAGAAGATAAAATCAAGCATG
TATCTGCCTATACTTTGTGAGTTACCTGTCTTTATACTCAAAGTGTCCCTTAATAGTGTCTTCCCTGAAATA
AATACCTAAGGGAGTGAACAGTCTCTGGAGGACCACTTTGAGCCTTTGGAAGTTAAGGTTTCCTCAGCCACCTG
CCGAACAGTTTCTCATGTGGTCCATTAATTTGTCTACTGAGACTTAATACTGAGCAATGTTTTGAAACAAGATTT
CAAATAATCTGGGTTGTAATACAGTTTATACCAGTGTATGCTCTAGACTTGGAAGATGTAGTATGTTTGATGTG
GATTACCTATACTTATGTTTCGTTTTGATACATTTTTAGCTTCTCATTATAAGGTGATTCATGCTTTAGTGAATTC
TTCATAGATAGTATATATAAAAGTACATTTTAATAGAAAGCCAGGGTTTTAAGGAATTCACATGTATAAGGTGG
CTCCATAGCTTTATTTGTAAGTAGGCTGGATAAATGGTGCTTAAATGGTAATGTACTCCACTTCTTCTTATTGGA
AGATTAACATTATTTACCAAGAAGGACTTAAGGGAGTAAGGGGCGCAGATTAGCATTGCTCAAGAGTATGTAAAA
AAAAAAAAAAAAAAAAAAAA

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FIGURE 559

MNSPKSKKAKKKEEPSQNDISPKTKSLRKKKEPIEKKVVSSTKKVTKNEEPSEEEIDAPKPKMKKKEKEMNGET
REKSPKLKNGFPHPEPDCNPSEAASEESNSEIEQEIPVEQKEGAFSNFP ISEETIKLLKGRGVTFLLFPIQAKTFH
HVYSGKDLIAQARTGTGKTF SFAIPLIEKLHGELQDRKRGRAPQVLVLAPTRELANQVSKDFSDITKKLSVACFY
GGTPYGGQFERMRNGIDILVGTPGRIKDHIQNGKLDLTKLKHVVLDDEVDMQMLDMGFADQVEEILSVAYKKDSEDN
PQTLLFSATCPHWVFNVAKKYMKSTYEQVDLIGKKTQKTAITVEHLAIKCHWTQRAAVIGDVIRVYSGHQGRTII
FCETKKEAQELSONSAIKQDAQSLHGDIPQKQREITLKGFRNGSFGVLVATNVAARGLDIPVDLVIQSSPPKDV
ESYIHRSGRTGRAGRTGVCICFYQHKEEYQLVQVEQKAGIKFKRIGVPSATEI IKASSKDAIRLLDSVPPTAISH
FKQSAEKLIEEKGAVEALAAALAHISGATSVDQRS LINSNVGFVTMILQCSIEMPNISYAWKELKEQLGEEIDSK
VKGMVFLKGKLGVCFDVPTASVTEIQEKWHSRRWQLSVATEQPELEGPREGYGGFRGQREGSRGFRGQRDGNRR
FRGQREGSRGPRGQRSGGGNKS NRSQNKGQKRSFSKAFGQ

FIGURE 560

CGATTTTCATTCTCGCTCCCCACAGGTCCCTCTCCCCAAAATATTCCCATCTTGTCTAGCCCATCCCCCAGACT
ATCTCAAGGACCAGCTGTCCCCACGCCCCGACCTCCACTAGGCCTGTGCCACCCGCTGCCTGCAGGAAGACGCC
CGGTCCCGGGCCGGGTTAGCCCCATGGGAACGCAGCGCCTGTGTGGCCGCGGGACTCAAGGCTGGCCTGGCTCAA
GTGAACAGCACGTCCAGGAGGCGACCTCGTCCGCGGGTTTGATTCTGGGGTGGACGAGCTGGGGGTTCCGGTCCG
AGCCCGGTGGGAGGCTCCCGGAGCGCAGCCTGGGCCAGCCACCCCGCGCCGGCGCCATGGCAGGCACCCTGG
ACCTGGACAAGGGCTGCACGGTGGAGGAGCTGCTCCGCGGGTGCATCGAAGCCTTCGATGACTCCGGGAAGGTGC
GGGACCCGCGAGCTGGTGCATGTTTCCTCATGATGCACCCCTGGTACATCCCTCCTCTCAGCTGGCGGCCAAGC
TGCTCCACATCTACCAACAATCCCGGAAGGACAACCTCCAATTCCCTGCAGGTGAAAACGTGCCACCTGGTCAGGT
ACTGGATCTCCGCTTCCAGCGGAGTTTGACTTGAACCCGGAGTTGGCTGAGCAGATCAAGGAGCTGAAGGCTC
TGCTAGACCAAGAAGGGAACCGACGGCACAGCAGCCTAATCGACATAGACAGCGTCCCTACCTACAAGTGAAGC
GGCAGGTGACTCAGCGGAACCCGTGTTGGACAGAAAAAGCGCAAGATGTCCCTGTTGTTTGACCACCTGGAGCCCA
TGGAGCTGGCGGAGCATCTCACCTACTTGGAGTATCGCTCCTTCTGCAAGATCCTGTTTCAGGACTATCACAGTT
TCGTGACTCATGGCTGCACTGTGGACAACCCCGTCTGGAGCGGTTTCATCTCCCTCTTCAACAGCGTCTCACAGT
GGGTGCAGCTCATGATCCTCAGCAAACCCACAGCCCCGCGAGCGGGCCCTGGTTCATCACACACTTTGTCCACGTGG
CGGAGAAGCTGCTACAGCTGCAGAACTTCAACACGCTGATGGCAGTGGTTCGGGGGCTGAGCCACAGCTCCATCT
CCCGCTCAAGGAGACCCACAGCCACGTTAGCCCTGAGACCATCAAGCTCTGGGAGGGTCTCACGGAAGTGTGA
CGGCGACAGGCAACTATGGCAACTACCGGCGTGGCTGGCAGCCTGTGTGGGCTTCCGCTTCCCGATCCTGGGTG
TGCACCTCAAGGACCTGGTGGCCCTGCAGCTGGCACTGCCTGACTGGCTGGACCCAGCCCGGACCCGGCTCAACG
GGGCAAGATGAAGCAGCTCTTTAGCATCCTGGAGGAGCTGGCCATGGTGACCAGCCTGCGGCCACCAGTACAGG
CCAACCCCGACCTGCTGAGCCTGCTCACGGTGTCTCTGGATCAGTATCAGACGGAGGATGAGCTGTACCAGCTGT
CCCTGCAGCGGGAGCCGCGCTCCAAGTCTCGCCAACCAGCCCCACGAGTTGCACCCACCACCCCGGCCCCCGG
TACTGGAGGAGTGGACCTCGGCTGCCAAACCCAAGCTGGATCAGGCCCTCGTGGTGGAGCACATCGAGAAGATGG
TGGAGTCTGTGTTCCGGAACCTTTGACGTCGATGGGGATGGCCACATCTCACAGGAAGAATTCCAGATCATCCGTG
GGAACCTTCCCTTACCTCAGCGCCTTTGGGGACCTCGACCAGAACCAGGATGGCTGCATCAGCAGGGAGGAGATGG
TTTCTATTTCTGCGCTCCAGCTCTGTGTTGGGGGGCGCATGGGCTTCGTACACAACCTCCAGGAGAGCAACT
CCTTGCGCCCCGTCGCTGCCGCCACTGCAAAGCCCTGATCCTGGGCATCTACAAGCAGGGCCTCAAATGCCGAG
CCTGTGGAGTGAAGTGCACAAAGCAGTGCAAGGATCGCCTGTGAGTTGAGTGTGCGGCGAGGGCCCAGAGTGTGA
GCCTGGAGGGGTCTGCACCCCTACCCCTACCCATGCACAGCCACCATCACCGCGCCTTCAGCTTCTCTCTGCCCC
GCCCTGGCAGGCGAGGCTCCAGGCCTCCAGAGATCCGTGAGGAGGAGGTACAGACGGTGGAGGATGGGGTGTGTTG
ACATCCACTTGTAATAGATGCTGTGTTGGATCAAGGACTCATTCCCTGCCTTGGAGAAAATACTTCAACCAGAGC
AGGGAGCCTGGGGGTGTGCGGGCAGGAGGCTGGGGATGGGGGTGGGATATGAGGGTGGCATGCAGCTGAGGGCAG
GGCCAGGGCTGGTGTCCCTAAGGTTGTACAGACTCTTGTGAATATTTGTATTTCCAGATGGAATAAAAAGGCC
GTGTAATTAACCTTCA

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FIGURE 561

MGTQRLCGRGTQGWPGSSEQHVQEATSSAGLHSGVDELGVRSEPPGRLPERSLGPAPAPAAAMAGTLDLDKGCTV
EELLRGCIEAFDDSGKVRDPQLVRMFLMMHPWYIPSSQLAAKLLHIYQQSRKDNSNSLQVKTCHLVRYWISAFPA
EFDLNPELAEQIKELKALLDQEGNRRHSSLIDIDSVPYKWKQVTQORNPVGQKKRMSLLFDHLEPMELAEHLT
YLEYRSFCKILFQDYHSFVTHGCTVDNPVLERFISLFNSVSQWVQLMILSKPTAPQRALVITHFVHVAEKLLQLQ
NFNTLMAVVGGLSHSSISRLKETHSHVSPETIKLWEGLTELVTATGNYGNYRRRLAACVGFRFPILGVHLKDLVA
LQLALPDWLDPARTRLNGAKMKQLFSILEELAMVTSLRPPVQANPDLLSLLTVSLDQYQTEDELYQLSLQREPRS
KSSPTSPTSCTPPPRPPVLEEWTSAAKPKLDQALVVEHIEKMVESVFRNFDVDGDGHISQEEFQIIRGNFPYLSA
FGDLDQNQDGCISREEMVSYFLRSSSVLGGRMGFVHNFQESNSLRPVACRHCKALILGIYKQGLKCRACGVNCHK
QCKDRLSVECRRAQSVSLEGSAPSPSPMHSHHHRAFSFSLPRPGRRGSRPPEIREEEVQTVEDGVFDIHL

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FIGURE 562

GCCTGTCCTGACACAATGTGGCTGGGTCCAGACATGAAGAGGTGCTACCGAGCACCTCAATCTACCTCAACTACG
ACGTTAGCTTCTACCATGACGAGGACAGTACCTGCCACCACAAGAGCCCCCGGGACCACCGTCCACAGATCCACC
TACCAGAACCACAGCACAGAGACACCAAGCCTGACAGCTGCAGTCCCAAGCTCAGTTAGTGTCCCAGGGCTCCC
AGCATCAGCCCGTCTACCCTAAGCCCTGCAACCAGCAACCACTCCCAGCACTATGCAAAATGAAGACAGTAAGATG
GGCTCAACAGTCACTGCCGCTGTTATCGGGATCATCGTGCCCATAGTGGTGATAGCCCTCCTGTGCATGAGTGGA
TACCTGATCTGGAGAACTGGAAGCGGAAGAACACCAAAAGCATGAATTTTGACAACCCAGTCTACAGGAAAACA
ACAGAAGAAGAAGACGAAGATGAGCTCCATATAGGGGAGAACTGCTCAGATTGGCCATGTCTATCCTGCAGCAATC
AGCAGCTTTGATCGCCCACTGTGGGCAGAGCCCTGTCTTGGGGAGACCAGAGAACCGGAAGACCCAGCCCTGCC
CTCAAGGAGCTTTTTGTCTTGCCGGGGGAACCAAGGTCACAGCTGCACCAACTCCCGAAGAACCCTCTTCCGAG
CTGCCTGTCTGTCAAATCCAAGCGAGTGGCATTAAGCCTTGAAGATGATGGACTACCCTGAGGATGGGATCACCCC
CTTCGTGCCTCATGGAATTCAGTCCCATGCACTACACTCTGGATGGTGTATGACTGGATGAATGGGTTTCTATAT
ATGGGTCTGTGTGAGTGTATGTGTGTGTGATTTTTTTTTTAAATTTATGTTGCGGAAAGGTAACCACAAAGTT
ATGATGAACTGCAACATCCAAAGGATGTGAGAGTTTTTCTATGTATAATGTTTTATACACTTTTTAACTGGTTG
CACTACCCATGAGGAATTCGTGGAATGGCTACTGCTGACTAACATGATGCACATAACCAATGGGGGCCAATGGC
ACAGTACCTTACTCATCATTTAAAACTATATTTACAGAAGATGTTTGGTTGCTGGGGGGGCTTTTTTTAGGTTT
TGGGGCATTGTGTGTGTAAATAAGATGATTATGCTTTGTGGCTATCCATCAACATAAGTAAAAAAAAAAAAAA
AACACTTCAACTCCCTCCCCCATTTAGATTATTTATTAACATATTTTAAAAATCAGATGAGTTCTATAAATAATT
TAGAGAAGTGAGAGTATTTATTTTGGCATGTTTGGCCCACCACACAGACTCTGTGTGTGTATGTGTGTGTTTAT
ATGTGTATGTGTGTGACAGAAAAATCTGTAGAGAAGAGGCACATCTATGGCTACTGTTCAAATACATAAAGATAA
ATTTATTTTACACAGTCCACAAGGGGTATATCTTGTAGTTTTTCAGAAAAGCCTTGGAATCTGGATCAGAAAA
TAGATACCATGGTTTGTGCAATTATGTAGTAAAAAAGGCAAATCTTTTACCTCTGGCTATTCTTGAGACCCAG
GAAGTCAGGAAAAGCCTTTCAGCTCACCCATGGCTGCTGTGACTCCTACCAGGGCTTCTTGGCTTTGGCGAAGG
TCAGTGTACAGACATTCCATGGTACCAGAGTGCTCAGAACTCAAGATAGGATATGCCTCACCTCAGCTACTCC
TTGTTTTAAAGTTTCACTCTTTGAGTAACTTCTTCAATTTCTTTTCAAGGACACTTGGGTTGAATTCAGTAAGTTTC
CTCTGAAGCACCTGAAGGGTGCCATCCTTACAGAGCTAAGTGAGACGTTTCCAGATCAGCCCAAGTTTACTAT
AGAGACTGGCCCAGGCACTGAATGTCTAGGACATGCTGTGGATGAAGATAAAGATGGTGGAATAGGTTTTATCAC
ATCTCTTATTTCTCTTTTCCCTTACTCTCTACCATTTTCTTTTATGTGGGGAAACATTTTAAGGTAATAAATAGG
TTACTTACCATCATATGTTTCATATAGATGAACTAATTTTTGGCTTAAAGTCAGAACAACTGGCCAAAATTGAAGT
CATATTTGAGGGGGGAAATGGCATAACGCAATATTATATTATTTGGATATTTATGTTTACACAGGAATTTGGTTT
ACTGCTTTGTAAATAAAAGGAAAACTCCGGGTAAAAAAAAAAAAAAAAAAAAA

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FIGURE 563

GGGAGGACCCCAATCTAGGCCCAAGAGGGAAAGGCCACGTGCCTGTATGAGCGTATGAGCATGTGCATGCGCGTG
TGTGCACAGGGTGGTGCACCTGGCAGGGGTCCTTGAGTGAGGCATGCCCCATTCTGTAGCAGGGAACCTGGA**ATG**

GGCTGTGTGTTCTGCAAGAAATTGGAGCCGGTGGCCACGGCCAAGGAGGATGCTGGCCTGGAAGGGGACTTCAGA
AGCTACGGGGCAGCAGACCACTATGGGCCTGACCCCACTAAGGCCCGCCTGCATCCTCATTGCCCACATCCCC
AACTACAGCAACTTCTCCTCTCAGGCCATCAACCCTGGCTTCTTGATAGTGGCACCATCAGGGGTGTGTACGGG
ATTGGGGTGACCCTGTTTCATTGCCCTGTATGACTATGAGGCTCGAACTGAGGATGACCTCACCTTACCAAGGGC
GAGAAGTTCCACATCCTGAACAATACTGAAGGTGACTGGTGGGAGGCTCGGTCTCTCAGCTCCGGAAAACTGGC
TGCATTCCAGCAACTACGTGGCCCCCTGTTGACTCAATCCAAGCTGAAGAGTGGTACTTTGGAAAGATTGGGAGA
AAGGATGCAGAGAGGCAGCTGCTTTCACCAGGCAACCCCCAGGGGGCCTTTCTCATTCCGGAAAGCGAGACCACC
AAAGGTGCCTACTCCCTGTCCATCCGGGACTGGGATCAGACCAGAGGCGATCATGTGAAGCATTACAAGATCCGC
AAACTGGACATGGGCGGCTACTACATCACACACGGGTTCAAGTCAACTCGGTGCAGGAGCTGGTGCAGCACTAC
ATGGAGGTGAATGACGGGCTGTGCAACCTGCTCATCGCGCCCTGCACCATCATGAAGCCGCAGACGCTGGGCCTG
GCCAAGGACGCTGGGAGATCAGCCGCAGCTCCATCACGCTGGAGCGCCGGCTGGGCACCGGCTGCTTCGGGGAT
GTGTGGCTGGGCACGTGGAACGGCAGCACTAAGGTGGCGGTGAAGACGCTGAAGCCGGGCACCATGTCCCCGAAG
GCCTTCTTGAGGAGGCGCAGGTCATGAAGCTGCTGCGGCACGACAAGCTGGTGCAGCTGTACGCCGTGGTGTGC
GAGGAGCCCATCTACATCGTGACCGAGTTCATGTGTACGGCAGCTTGCTGGATTTTCTCAAGAACCCAGAGGGC
CAGGATTTGAGGCTGCCCAATTGGTGGACATGGCAGCCCAGGTAGCTGAGGGCATGGCCTACATGGAACGCATG
AACTACATTACCGCGACCTGAGGGCAGCCAACATCCTGGTTGGGGAGCGGCTGGCGTGCAAGATCGCAGACTTT
GGCTTGGCGGCTCTCATCAAGGACGATGAGTACAACCCCTGCCAAGGTTCCAAGTTCCCCATCAAGTGGACAGCC
CCAGAAGCTGCCCTCTTTGGCAGATTACCATCAAGTCAGACGTGTGGTCCTTTGGGATCCTGCTCACTGAGCTC
ATCACCAAGGGCCGAATCCCTTACCCAGGCATGAATAAACGGGAAGTGTGGAACAGGTGGAGCAGGGCTACCAC
ATGCCGTGCCCTCCAGGCTGCCCAGCATCCCTGTACGAGGCCATGGAACAGACCTGGCGTCTGGACCCGGAGGAG
AGGCCTACCTTCGAGTACCTGCAGTCCTTCTGGAGGACTACTTCACCTCCGCTGAACCACAGTACCAGCCCGGG
GATCAGACATAGCCTGTCCGGGCATCAACCCTCTCTGGCGGTGGCCACCAGTCCTTGCCAATCCCCAGAGCTGTT
CTTCCAAAGCCCCCAGGCTGGCTTAGAACCCCATAGAGTCCTAGCATCACCGAGGACGTGGCTGCTCTGACACCA
CCTAGGGCAACCTACTTGTGTTTACAGATGGGGCAAAAGGAGGCCAGAGCTGATCTCTCATCCGCTCTGGCCCCA
AGCACTATTTCTTCTTTTCCACTTAGGCCCTACATGCCTGTAGCCCTTTCTCACTCCATCCCCACCCAAAAGT
GCTCAGACCTTGTCTAGTTATTTATAAACTGTATGTACCTCCCTCACTTCTCTCCTATCACTGCTTTCTACTCT
CCTTTTATCTCACTCTAGTCCAGGTGCCAAGAATTTCCCTTCTACCCTCTATTCTCTTGTGTCTGTAAGTTACAA
AGTCAGGAAAAGTCTTGGCTGGACCCCTTTTCTGCTGGGTGGATGCAGTGGTCCAGGACTGGGGTCTGGGCCCCAG
GTTTGAGGGAGAAGTTTGCAGAGCACTTCCACCTCTCTGAATAGTGTGTATGTGTTGATTTATTGATTCTGTAA
ATAAGTAAATGACAATATGAATCCTCCA

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FIGURE 564

MGCVFCKKLEPVATAKEDAGLEGDFRSYGAADHYGPDPTKARPASSFAHIPNYSNFSSQAINPGFLDSGTIRGVS
GIGVTLFIALYDYEARTEDDLTFTKGEKFHILNNTEGDWWEARSLSSGKTGCIPSNYVAPVDSIQAEEWYFGKIG
RKDAERQLLSPGNPQGAFLIRESETTKGAYSLSIRDWDQTRGDHVKHYKIRKLDMGGYYITTRVQFNSVQELVQH
YMEVNDGLCNLLIAPCTIMKPQTLGLAKDAWEISRSSITLERRLGTGCFGDVWLGTWNGSTKVAVKTLKPGTMSP
KAFLEEAQVMKLLRHDKLVLQYAVVSEEPYIYIVTEFMCHGSLDLFLKNPEGQDLRLPQLVDMAAQVAEGMAYMER
MNYIHRDLRAANILVGERLACKIADFGLARLIKDDDEYNPCQGSKFPIKWTAPEAALFGRFTIKSDVWSFGILLTE
LITKGRIPYPGMNKREVLEQVEQGYHMPGCPASLYEAMEQWRLDPEERPTFEYLQSFLEDYFTSAEPQYQP
GDQT

FIGURE 565A

GCAGAGGAGTCGGGATCTGCGCTGCAGCCACCGCCGCGGTTGATACTACTTTGACCTTCCGAGTGCAGTGAGGC
ATACATCACAATTTGGAATTATGCATTGGTTTATCAATTTACTTGTATTATTGTCACCCTGCTGCCAGATATGAC
TTCATGAGGACAGTGATGTGTGTTCTGAAATTGTGAACCATGAGTCTAGTACTTAATGATCTGCTTATCTGCTGC
CGTCAACTAGAACATGATAGAGCTACAGAACGAAAGAAAGAAGTTGAGAAATTTAAGCGCCTGATTCGAGATCCT
GAAACAATTAACATCTAGATCGGCATTAGATTCCAAACAAGGAAAATATTTGAATTGGGATGCTGTTTTTAGA
TTTTTACAGAAATATATTAGAAAGAAACAGAATGTCTGAGAATAGCAAAACCAAATGTATCAGCCTCAACACAA
GCCTCCAGGCAGAAAAAGATGCAGGAAATCAGTAGTTTGGTCAAATACTTCATCAAATGTGCAAACAGAAGAGCA
CCTAGGCTAAAATGTCAAGAACTCTTAAATTATATCATGGATACAGTGAAAGATTCATCTAATGGTGCTATTTAC
GGAGCTGATTGTAGCAACATACTACTCAAAGACATTCTTCTGTGAGAAAATACTGGTGTGAAATATCTCAGCAA
CAGTGGTTAGAATTGTTCTCTGTGTACTTCAGGCTCTATCTGAAACCTTCACAAGATGTTTCATAGAGTTTTAGTG
GCTAGAATAATTCATGCTGTTACCAAAGGATGCTGTTCTCAGACTGACGGATTAAATCCAAATTTTGGACTTT
TTTTCCAAGGCTATTCAGTGTGCGAGACAAGAAAAGAGCTCTTCAGGTCTAAATCATATCTTAGCAGCTCTTACT
ATCTTCCTCAAGACTTTGGCTGTCAACTTTTCAATTTCAGTGTGTGAATTAGGAGATGAAATCTTCCCACTTTG
CTTTATATTTGGACTCAACATAGGCTTAATGATTCTTTAAAAGAAGTCATTATTGAATTATTTCAACTGCAAATT
TATATCCATCATCCGAAAGGAGCCAAAACCCAAAGAAAAGGTGCTTATGAATCAACAAAATGGAGAAGTATTTTA
TACAACCTATATGATCTGCTAGTGAATGAGATAAGTCATATAGGAAGTAGAGGAAAGTATTCTTCAGGATTTCTG
AATATTGCCGTCAAAGAAAATTTGATTGAATTGATGGCAGATATCTGTCAACCAGGTTTTTAATGAAGATACCAGA
TCCTTGGAGATTTCTCAATCTTACACTACTACACAAAGAGAATCTAGTGATTACAGTGTCCCTTGCAAAAGGAAG
AAATAGAACTAGGCTGGGAAGTAATAAAAGATCACCTTCAGAAGTCACAGAATGATTTTGATCTTGTGCCTTGG
CTACAGATTGCAACCCAATTAATATCAAAGTATCCTGCAAGTTTACCTAACTGTGAGCTGTCTCCATTACTGATG
ATACTATCTCAGCTTCTACCCCAACAGCGACATGGGGAACGTACACCATATGTGTTACGATGCCTTACGGAAGTT
GCATTGTGTCAAGACAAGAGGTCAAACCTAGAAAGCTCACAAAAGTCAGATTTATTTAAACTCTGGAATAAAATT
TGGTGTATTACCTTTCTGTTGATAAGTTCTGAGCAAATACAAGCTGAAAACCTTTGGCTTACTTGGAGCCATAATT
CAGGGTAGTTTAGTTGAGGTTGACAGAGAATTCTGGAAGTTATTTACTGGGTCAGCCTGCAGACCTTCATGTCCT
GCAGTATGCTGTTTGACTTTGGCACTGACCACCAGTATAGTTCCAGGAGCGGTAAAAATGGGAATAGAGCAAAAT
ATGTGTGAAGTAAATAGAAGCTTTTCTTTAAAGGAATCAATAATGAAATGGCTCTTATTCTATCAGTTAGAGGGT
GACTTAGAAAATAGCACAGAAGTGCTTCAATCTTTCACAGTAATTTTCTCATCTTGTACTGGAGAAAATCTTT
GTGAGTCTCACTATGAAAACTGTAAAGCTGCAATGAATTTTTTCCAAAGCGTGCCAGAATGTGAACACCACCAA
AAAGATAAAGAAGAACTTTTCACTTCTCAGAAGTAGAAGAACTATTTCTTCAGACAACCTTTTGACAAGATGGACTTT
TTAACCATTTGTGAGAGAAATGTGGTATAGAAAAGCACCAGTCCAGTATTGGCTTCTCTGTCCACCAGAATCTCAAG
GAATCACTGGATCGCTGTCTTCTGGGATTATCAGAACAGCTTCTGAATAATTACTCATCTGAGATTACAAATTCA
GAACTCTTGTCCGGTGTTTACGTCCTTTTGGTGGGTGTCCTTGGCTGCTACTGTTACATGGGTGTAATAGCTGAA
GAGGAAGCATATAAGTCAGAATTATTCAGAAAGCCAACCTCTCTAATGCAATGTGCAGGAGAAAGTATCACTCTG
TTTAAAAATAAGACAAATGAGGAATTCAGAATTGGTTCTTGGAGAAATATGATGCAGCTATGTACACGTTGCTTG
AGCAACTGTACCAAGAAGAGTCCAAATAAGATTGCATCTGGCTTTTCTGCGATTGTTAACATCAAAGCTAATG
AATGACATTGCAGATATTTGTAAAAGTTTAGCATCTTTCATCAAAAAGCCATTTGACCGTGGAGAAGTAGAATCA
ATGGAAGATGATACTAATGGAAATCTAATGGAGGTGGAGGATCAGTCATCCATGAATCTATTTAACGATTACCCT
GATAGTAGTGTAGTGATGCAAACGAACCTGGAGAGAGCCAAAGTACCATAGGTGCCATTAATCCTTTAGCTGAA
GAATATCTGTCAAAGCAAGATCTACTTTTCTTAGACATGCTCAAGTTCTTGTGTTGTGTGTAACACTACTGCTCAG
ACCAATACTGTGTCTTTAGGGCAGCTGATATTCGGAGGAAATTGTTAATGTTAATTGATTCTAGCACGCTAGAA
CCTACCAAATCCCTCCACCTGCATATGTATCTAATGCTTTTAAAGGAGCTTCTTGAGAGAAGAGTACCCCTTGCCA
ATGGAAGATGTTCTTGAACCTTCTGAAACCACTATCCAATGTGTGTTCTTTGTATCGTCGTGACCAAGATGTTTGT
AAAATATTTTAAACCATGTCTTTCATGTAGTGAAAAACCTAGGTCAAAGCAATATGGACTCTGAGAACACAAGG
GATGCTCAAGGACAGTTTCTTACAGTAATTGGAGCATTTTGGCATCTAACAAAGGAGAGGAAATATATATTCTCT
GTAAGAATGGCCCTAGTAAATTGCCTTAAACCTTTGCTTGGAGGCTGATCCTTATTCAAAATGGGCCATTCTTAAT
GTAATGGGAAAAGACTTTCTGTAAATGAAGTATTTACACAATTTCTTGCTGACAATCATCACCAAGTTCGCATG
TTGGCTGCAGAGTCAATCAATAGATTGTTCCAGGACACGAAGGGAGATTCTTCCAGGTTACTGAAAGCACTTCTCT
TTGAAGCTTCAGCAAACAGCTTTTGAAAATGCATACTTGAAAGCTCAGGAAGGAATGAGAGAAATGTCCCATAGT

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FIGURE 565B

GCTGAGAACCCTGAAACTTTGGATGAAATTTATAATAGAAAATCTGTTTTACTGACGTTGATAGCTGTGGTTTTTA
TCCTGTAGCCCTATCTGCGAAAAACAGGCTTTGTTTGCCCTGTGTAAATCTGTGAAAGAGAATGGATTAGAACCT
CACCTTGTGAAAAAGGTTTTAGAGAAAGTTTTCTGAAACTTTTGGATATAGACGTTTAGAAGACTTTATGGCATCT
CATTTAGATTATCTGGTTTTTGGAAATGGCTAAATCTTCAAGATACTGAATACAACCTTATCTTCTTTTCTTTTATT
TTATTAAACTACACAAATATTGAGGATTTCTATAGATCTTGTATAAGGTTTTGATTCCACATCTGGTGATTAGA
AGTCATTTTGATGAGGTGAAGTCCATTGCTAATCAGATTCAAGAGGACTGGAAAAGTCTTCTAACAGACTGCTTT
CCAAAGATTCTTGTAATATTCTTCTTATTTTTGCCTATGAGGGTACCAGAGACAGTGGGATGGCACAGCAAAGA
GAGACTGCTACCAAGGTCTATGATATGCTTAAAAGTGAAACTTATTGGGAAAACAGATTGATCACTTATTTCATT
AGTAATTTACCAGAGATTGTGGTGGAGTTATTGATGACGTTACATGAGCCAGCAAATTCAGTGCCAGTCAGAGC
ACTGACCTCTGTGACTTTTCAGGGGATTTGGATCCTGCTCCTAATCCACCTCATTTTCCATCGCATGTGATTAAA
GCAACATTTGCCTATATCAGCAATTGTCATAAAACCAAGTTAAAAAGCATTTTAGAAATCTTTCCAAAAGCCCT
GATTCCTATCAGAAAATCTTCTTGCCATATGTGAGCAAGCAGCTGAAACAAATAATGTTTATAAGAAGCACAGA
ATTCTTAAATATATCACCTGTTTGTAGTTTATTACTGAAAGATATAAAAAAGTGGCTTAGGAGGAGCTTGGGCC
TTTGTCTTTCGAGACGTTATTTATACTTTGATTCACTATATCAACCAAAGGCCCTTCTGTATCATGGATGTGTCA
TTACGTAGCTTCTCCCTTTGTTGTGACTTATTAAGTCAGGTTTGCCAGACAGCCGTGACTTACTGTAAGGATGCT
CTAGAAAACCATCTTCATGTTATTGTTGGTACACTTATACCCCTTGTGTATGAGCAGGTGGAGGTTTCAGAAACAG
GTATTGGACTTGTGAAATACTTAGTGATAGATAACAAGGATAATGAAAACCTCTATATCACGATTAAGCTTTTA
GATCCTTTTCTGACCATGTTGTTTTTAAGGATTTGCGTATTACTCAGCAAAAAATCAAATACAGTAGAGGACCC
TTTTCACTCTTGAGAGAAATTAACCATTTTTCTCTCAGTAAGTGTTTATGATGCACTTCCATTGACAAGACTTGAA
GGACTAAAGGATCTTCGAAGACAACCTGGAACCTACATAAAGATCAGATGGTGGACATTATGAGAGCTTCTCAGGAT
AATCCGCAAGATGGGATTATGGTGAACTAGTTGTCAATTTGTTGCAGTTATCCAAGATGGCAATAAACCACACT
GGTGAAAAAGAAGTTCTAGAGGCTGTTGGAAGCTGCTTGGGAGAAGTGGGTCTATAGATTTCTCTACCATAGCT
ATACAACATAGTAAAGATGCATCTTATACCAAGGCCCTTAAGTTATTTGAAGATAAAGAACTTCAGTGACCTTC
ATAATGCTGACCTACCTGAATAACACACTGGTAGAAGATTGTGTCAAAGTTCGATCAGCAGCTGTTACCTGTTTG
AAAAACATTTTAGCCACAAAGACTGGACATAGTTTCTGGGAGATTTATAAGATGACAACAGATCCAATGCTGGCC
TATCTACAGCCTTTTAGAACATCAAGAAAAAGTTTTTAGAAGTACCCAGATTTGACAAAGAAAACCTTTTGAA
GGCCTGGATGATATAAATCTGTGGATTCTCTAAGTGAAATCATGACATTTGGATAAAGACACTGACTTGTGCT
TTTTTGGACAGTGGAGGCACAAAATGTGAAATCTTCAATTATTAAGCCAATGTGTGAAGTGAAAACCTGACTTT
TGTCAGACTGTACTTCCATACTTGATTCATGATATTTTACTCCAAGATACAAATGAATCATGGAGAAATCTGCTT
TCTACACATGTTACGGGATTTTACCAGCTGTCTTCGACACTTCTCGCAAACGAGCCGATCCACAACCCCTGCA
AACTTGGATTTCAGAGTCAGAGCACTTTTCCGATGCTGTTTGGATAAAAAATCACAAAGAACAATGCTTGCTGTT
GTGGACTACATGAGAAGACAAAAGAGACCTTCTTCAGGAACAATTTTTAATGATGCTTTCTGGCTGGATTTAAAT
TATCTAGAAGTTGCCAAGGTAGCTCAGTCTTGTGCTGCTCACTTTACAGCTTTACTCTATGCAGAAATCTATGCA
GATAAGAAAAGTATGGAIGATCAAGAGAAAAGAAGTCTTGCAATTTGAAGAAGGAAGCCAGAGTACAACATTTCT
AGCTTGAGTGAAAAAGTAAAGAAGAACTGGAATAAGTTTACAGGATCTTCTCTTAGAAATCTACAGAAGTATA
GGGGAGCCAGATAGTTTGTATGGCTGTGGTGGAGGGAAGATGTTACAACCCATTACTAGACTACGAACATATGAA
CACGAAGCAATGTGGGGCAAAGCCCTAGTAACATATGACCTCGAAACAGCAATCCCTCATCAACACGCCAGGCA
GGAATCATTACAGGCCTTGCGAATTTGGGACTCTGCCATATTCTTTCCGTCTATTTAAAAGGATTGGATTATGAA
AATAAAGACTGGTGTCTGAACTAGAAGAACTTCATTACCAAGCAGCATGGAGGAATATGCAGTGGGACCATTGC
ACTTCCGTGAGCAAAGAAGTAGAAGGAACCAAGTACCATGAATCATTGTACAATGCTCTACAATCTCTAAGAGAC
AGAGAATTCTCTACATTTTATGAAAGTCTCAAATATGCCAGAGTAAAAGAAGTGAAGAGATGTGTAAGCGCAGC
CTTGAGTCTGTGATTTCGCTCTATCCACACTTAGCAGGTTGCAGGCCATTGGAGAGCTGGAAAGCATTGGGGAG
CTTTTCTCAAGATCAGTCACACATAGACAACCTCTCTGAAGTATATATTAAGTGGCAGAAACACTCCCAGCTTCTC
AAGGACAGTGATTTTAGTTTTTCAAGGAGCTATCATGGCTCTACGCACAGTCATTTTGGAGATCCTGATGGAAAAG
GAAATGGACAACCTACAAAGAGAATGTATTAAGGACATTCTCACCAAACACCTTGTAAGACTCTCTATACTGGCC
AGAACTTTCAAGAACACTCAGCTCCCTGAAAGGGCAATATTTCAAATTAACAGTACAATTCAGTTAGCTGTGGA
GTCTCTGAGTGGCAGCTGGAAGAAGCACAAGTATTCTGGGCAAAAAAGGAGCAGAGTCTTGCCCTGAGTATTCTC
AAGCAAATGATCAAGAAGTTGGATGCCAGCTGTGCAGCGAACAATCCAGCCTAAAACCTTACATACACAGAATGT

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FIGURE 565C

CTGAGGGTTTGTGGCAACTGGTTAGCAGAAACGTGCTTAGAAAAATCCTGCGGTCATCATGCAGACCTATCTAGAA
AAGGCAGTAGAAGTTGCTGGAAATTATGATGGAGAAAGTAGTGATGAGCTAAGAAATGGAAAAATGAAGGCATTT
CTCTCATTAGCCCGGTTTTTCAGATACTCAATACCAAAGAATTGAAAACTACATGAAATCATCGGAATTTGAAAAC
AAGCAAGCTCTCCTGAAAAGAGCCAAAGAGGAAGTAGGTCTCCTTAGGGAACATAAAATTCAGACAAACAGATAC
ACAGTAAAGGTTTCAGCGAGAGCTGGAGTTGGATGAATTAGCCCTGCGTGCCTGAAAGAGGATCGTAAACGCTTC
TTATGTAAAGCAGTTGAAAATTATATCAACTGCTTATTAAGTGGAGAAGAACATGATATGTGGGTATTCCGGCTT
TGTTCCCTCTGGCTTGAAAATTCTGGAGTTTCTGAAGTCAATGGCATGATGAAGAGAGACGGAATGAAGATTCCA
ACATATAAAATTTTTGCCTCTTATGTACCAATTGGCTGCTAGAATGGGGACCAAGATGATGGGAGGCCTAGGATTT
CATGAAGTCCTCAATAATCTAATCTCTAGAATTTCAATGGATCACCCCATCACACTTTGTTTATTATACTGGCC
TTAGCAAAATGCAAACAGAGATGAATTTCTGACTAAACCAGAGGTAGCCAGAAGAAGCAGAATAACTAAAAATGTG
CCTAAACAAAGCTCTCAGCTTGATGAGGATCGAACAGAGGCTGCAAATAGAATAATATGTACTATCAGAAGTAGG
AGACCTCAGATGGTCAGAAGTGTTGAGGCACTTTGTGATGCTTATATTATATTAGCAAACCTTAGATGCCACTCAG
TGGAAGACTCAGAGAAAAGGCATAAATATTCCAGCAGACCAGCCAATTACTAAACTTAAGAATTTAGAAGATGTT
GTTGTCCCTACTATGGAAATTAAGGTGGACCACACAGGAGAATATGGAAATCTGGTGACTATACAGTCATTTAAA
GCAGAAATTCGCTTAGCAGGAGGTGTAAATTTACCAAAAAATAATAGATTGTGTAGGTTCCGATGGCAAGGAGAGG
AGACAGCTTGTTAAGGGCCGTTGATGACCTGAGACAAGATGCTGTGCAACAGGTCTTCAGATGTGTAATACA
TTACTGCAGAGAAACACGGAACTAGGAAGAGGAAATTAACATATCTGTACTTATAAGGTGGTTCCCCCTCTCTCAG
CGAAGTGGTGTTCTTGAATGGTGACAGGAAGTGTCCCCATTGGTGAATTTCTTGTTAACAATGAAGATGGTGCT
CATAAAAGATACAGGCCAATGATTTTCAGTGCCCTTTCAGTGCCAAAAGAAAATGATGGAGGTGCAAAAAAAGTCT
TTTGAAGAGAAATATGAAGTCTTCATGGATGTTTGCCAAAATTTTCAACCAGTTTTCCGTTACTTCTGTCATGGAA
AAATTTCTGGATCCAGCTATTTGGTTTGAGAAGCGATTGGCTTATACGCGCAGTGTAGCTACTTCTTCTATTGTT
GGTTACATACTTGGACTTGGTGATAGACATGTACAGAATATCTTGATAAATGAGCAGTCAGCAGAACTGTACAT
ATAGATCTAGGTGTTGCTTTTGAACAGGGCAAAATCCTTCCTACTCCTGAGACAGTTTCTTTTAGACTCACCAGA
GATATTGTGGATGGCATGGGCATTACGGGTGTTGAAGGTGTCTTCAGAAGATGCTGTGAGAAAACCATGGAAGTG
ATGAGAACTCTCAGGAACTCTGTAAACCATTGTAGAGGTCCTTCTATATGATCCACTCTTTGACTGGACCATG
AATCCTTTGAAAGCTTTGTATTTACAGCAGAGGCCGGAAGATGAACTGAGCTTCACCCTACTCTGAATGCAGAT
GACCAAGAATGCAAACGAAATCTCAGTGATATTGACCAGAGTTTCAACAAAGTAGCTGAACGTGTCTTAATGAGA
CTACAAGAGAACTGAAAGGAGTGGAAGAAGGCACTGTGCTCAGTGTGGTGGAACAAGTGAATTTGCTCATAACAG
CAGGCCATAGACCCCAAAAATCTCAGCCGACTTTTCCCAGGATGGAAAGCTTGGGTGTGATCTTCAGTATATGAA
TTACCCTTTCAATTCAGCCTTTAGAAATTATATTTTAGCCTTTATTTTTAACCTGCCAACATACTTTAAGTAGGGA
TTAATATTTAAGTGAATATTGTGGGTTTTTTTGAATGTTGGTTTTTAATACTTGATTTAATCACCCTCAAAAAAT
GTTTTGATGGTCTTAAGGAACATCTCTGCTTTCACTCTTTAGAAATAATGGTCATTTCGGGCTGGGCGCAGCGGCT
CACGCCTGTAATCCCAGCACTTTGGGAGGCCGAGGTGAGCGGATCACAAGGTCAGGAGTTTCGAGACCAGCCTGGC
CAAGAGACCAGCCTGGCCAGTATGGTGAAACCTGTCTCTACTAAAAATACAAAAATTAGCCGAGCATGGTGGCG
GGCACCTGTAGTCCCAGCTACTCGAGAGGCTGAGGCAGGAGAATCTCTTGAACCTGGGAGGTGAAGGTTGCTGTG
GGCAAAATCATGCCATTGCACTCCAGCCTGGGTGACAAGAGCGAACTCCATCTCAAAAA

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FIGURE 566

MTLHEPANSSASQSTDLCDFSGDLDPAPNPPHFP SHVIKATFAYISNCHKTKLKSILEILSKSPDSYQKILLAI
EQAAETNNVYKKHRILKIYHLFVSLLLKDIKSGLGGAFAVLRDVIYTLIHYINQRPSCIMDVSLRSFSLCCDLL
SQVCQTAVTYCKDALENHLHVIVGTLIPLVYEQVEVQKQVLDLLKYLVIDNKNENLYITIKLLDPFDPHVVKD
LRITQQKIKYSRGPFSLEEINHFSLSVSYDALPLTRLEGLKDLRRQLELHKDQMVDIMRASQDNPQDGIMVKLV
VNLLQLSKMAINHTGEKEVLEAVGSCLEGEVGPIDFSTIAIQHSDASYTKALKLFEDKELQWTFIMLTYNNTLV
EDCVKVRSAAVTCLKNILATKTGHSFWEIYKMTTDPMLAYLQPFRTSRKKFLEVPRFDKENPFEGGLDDINLWIP
SENHDIWIKTLTCAFLDSGGTKCEILQLLKPMCEVKTDFCQTVLPYLIHDILLQDTNESWRNLLSTHVQGFFTSC
LRHFSQTSRSTTPANLDSESEHFFRCCLDKKSQRTMLAVVDYMRQKRPSSGTIFNDAFWLDLNYLEVAKVAQSC
AAHFTALLYAEIYADKKSMDDQEKRSFAFEESQSTTISSLSSEKSKEETGISLQDLLLEIYRSIGEPDSLYGCGG
GKMLQPITRLRTYEHEAMWGKALVTYDLETAIPSSSTRQAGIIQALQNLGLCHILSVYKGLDYENKDWCELEEL
HYQAAWRNMQWDHCTSVSKEVEGTSYHESLYNALQSLRDEFSTFYESLKYARVKEVEEMCKRSLESVYSLYPTL
SRLQAIGELESIGELFSRSVTHRQLSEVYIKWQKHSQLLKDSDFSQEPIMALRTVILEILMEKEMDNSQRECIK
DILTKHLVELSILARTFKNTQLPERAIFQIKQYNSVSCGVSEWQLEEAQVFWAKKEQSLALSILKQMIKKLDASC
AANNPSLKLTYTECLRVCGNWLAEETCLENPAVIMQTYLEKAVEVAGNYDGESSDELNGKMKAFSLARFSDTQY
QRIENYMKSSSEFENKQALLKRAKEEVGLLREHKIQTNRVTYKQVQRELELDELALRALKEDRKRFLCKAVENYINC
LLSGEEHDMWVFRCLSLWLENSGVSEVNGMMKRDGMKIPTYKFLPLMYQLAARMGTMMGGGLGFHEVLNNLISRI
SMDHPHHTLFIILALANANRDEFLTKPEVARRSRITKNVPKQSSQLDEDRTAANRIICTIRSRRPQMVRSEAL
CDAYIILANLDATQWKTQRKGINIPADQPIITKLKNLEDDVVPTMEIKVDHTGEYGNLVTIQSFKAEFRLAGGVNL
PKIIDCVGSDGKERRQLVKGRDDLQDAVMQVVFQMCNTLLQRNTETTRKRLTICTYKVVP LSQRSGVLEWCTGT
VPIGEFLVNEDGAHKRYRPNDFSAFQCQKKMMEVQKKSFEKYEVEFMDVCQNFQPVFRYFCMEKFLDPAIWF
RLAYTRSVATSSIVGYILGLGDRHVQNILINEQSAELVHIDLGVAFEQKILPTPETVPFRLTRDIVDGMGITGV
EGVFRRCCEKTMEVMRNSQETLLTIVEVLLYDPLFDWTMNP LKALYLQQRPEDETELHPTLNADDQECKRNLSDI
DQSFNKVAERVLMLRQEKLGVEEGTVLSVGGQVNLLIQQAIDPKNLSRLFPGWKAWV

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FIGURE 567

CGCGCCTCGGGCGGTACCCAGCCAGTCCCCAGCGCCGCGCTACCGCGCTGACCGGCCCTCCAGACGCCTCCCGGT
ACCCGGGACCCAGCCCGGCCGCTCGCCCGCAGCCCGCGGCCGACACGTCCCCGGAGCCGGGCCCTAGGGCGGG
CGGCAGCGGCGGCTCGGCGCAGTCAGGCTGGGCTCTGTAGCGTCCCC**ATGG**CCGCGGCCGGCTGGCGGGACGGCT
CCGGCCAGGAGAAGTACCGGCTCGTGGTGGTCCGGCGGGGCGGCGTGGGCAAGTCGGCGCTCACCATCCAGTTCA
TCCAGTCCTATTTTGTAAACGGATTATGATCCAACCATTGAAGATTCTTACACAAAGCAGTGTGTGATAGATGACA
GAGCAGCCCGGCTAGATATTTTGGATACAGCAGGACAAGAAGAGTTTGGAGCCATGAGAGAACAGTATATGAGGA
CTGGCGAAGGCTTCCTGTTGGTCTTTTCAGTCACAGATAGAGGCAGTTTGAAGAAATCTATAAGTTTCAAAGAC
AGATTCTCAGAGTAAAGGATCGTGATGAGTTCCCAATGATTTTAATTGGTAATAAAGCAGATCTGGATCATCAA
GACAGGTAACACAGGAAGAAGGACAACAGTTAGCACGGCAGCTTAAGGTAACATACATGGAGGCATCAGCAAAGA
TTAGGATGAATGTAGATCAAGCTTTCCATGAACCTTGTCGGGTTATCAGGAAATTTCAAGAGCAGGAATGTCCTC
CTTACCAGAACCAACACGGAAAGAAAAAGACAAGAAAGGCTGCCATTGTGTCATTTT**TAGA**ATCCCTTCAGTT
TTAGCTACCAACGGCCAGGAAAAGCCCTCATCTTCTCTTCTCTCCTCAGTTTACATCTTGTGGTACCTTTCTA
GCCTTAGACAAATGATCACCATGTTAGCCTTAGACCAAGAAGCTGGCTAGTCCTTTCTGTGAAGCTAATACAATG
GTCATTTCCAGACAAATTTAAAGGAAACACTAAGGCTGCTTCAAAGATTATCTGATTCTTTAAATATATGTCT
ATATACACAGACATGCTCTTTTTTTAAGTGCTTACATTTTAATAGAGATGAATCAGTTTTGGAATCTAAGCTGTT
TGCCAAGCTGAAGCTACAGGTTGTGAAATAATTTTTAACTTTTTGGAATCATACTGCCTACTGTTACTCTAAATAG
AAATATAGGGTTTTTTTTAATGTGAATTTTTGCCTATCTTTAAACATTTCAATGTCAGCCTTTGTAAACCTTAAA
TACACTGAATTGAATCTACAAAAGTGAACCATCTCAGACCTTTACTGATACTACAACTTTTGTTTTCTGATGGCC
AAAATACCAAATGCCTGTTGTATTTATGGATTAAAAACTGCTTATAAAAAAAAAAAAAA

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FIGURE 568

MAAAGWRDGSQGEKYRLVVGGGGVGKSALTIQFIQSYFVTDYDPTIEDSYTKQCVIDDRAARLDILDTAGQEEF
GAMREQYMRTGEGFLLVFSVTDGRSFEEIYKFQRQILRVKDRDEFPMILIGNKADLDHQRQVTQEEGQQLARQLK
VTYPEASAKIRMNVDQAFHELVIRVIRKFQEQECPPSPEPTRKEKDKKGCHCVIF

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FIGURE 569

AAAATGTGCTTCTTACAGGAATATAAATAGTTTCTGGAAAGGACACTGACAACTTCAAAGCAAAATGAAGTTCTT
TCTGTTGCTTTTCACCATTTGGGTTCTGCTGGGCTCAGTATTCCCCAAATACACAACAAGGACGGACATCTATTGT
TCATCTGTTTGAATGGCGATGGGTTGATATTGCTCTTGAATGTGAGCGATATTTAGCTCCGAAGGGATTTGGAGG
GGTTCAGGTCTCTCCACCAAATGAAAATGTTGCAATTTACAACCCCTTTCAGACCTTGGTGGGAAAGATACCAACC
AGTTAGCTATAAATTATGCACAAGATCTGGAAATGAAGATGAATTTAGAAACATGGTGAAGTATGTAACAATGT
TGGGGTTTCGTATTTATGTGGATGCTGTAATTAATCATATGTGTGGTAACGCTGTGAGTGCAGGAACAAGCAGTAC
CTGTGGAAGTTACTTCAACCCTGGAAGTAGGGACTTTCCAGCAGTCCCATTCTGGATGGGATTTCAATGATGG
TAAATGTAAACTGGAAGTGGAGATATCGAGAACTACAATGATGCTACTCAGGTGAGAGATTGTCGTCTGACTGG
TCTTCTTGATCTTGCACTGGAGAAGGATTACGTGCGTTCTAAGATTGCCGAATATATGAACCATCTCATTGACAT
TGGTGTTCAGGGTTCAGACTTGATGCTTCCAAGCACATGTGGCCTGGAGACATAAAGGCAATTTTGGACAACT
GCATAATCTAAACAGTAACTGGTTCCTGCAGGAAGTAAACCTTTCATTACCAGGAGGTAATTGATCTGGGTGG
TGAGCCAATTAAGCAGTGACTACTTTGGTAATGGCCGGGTGACAGAATTCAAGTATGGTGCAAACTCGGCAC
AGTTATTCGCAAGTGGAAATGGAGAGAAGATGTCTTACTTAAAGAACTGGGGAGAAGGTTGGGGTTTCGTACCTTC
TGACAGAGCGCTTGCTTTGTGGATAACCATGACAATCAACGAGGACATGGGGCTGGAGGAGCCTCTATTCTTAC
CTTCTGGGATGCTAGGCTGTACAAAATGGCAGTTGGATTTATGCTTGCTCATCCTTACGGATTTACACGAGTAAT
GTCAAGCTACCGTTGGCCAAGACAGTTTCAAATGGAAACGATGTTAATGATTGGGTGGGCCACCAAATAATAA
TGGAGTAATTAAGAAGTTACTATTAATCCAGACACTACTTGTGGCAATGACTGGGTCTGTGAACATCGATGGCG
CCAAATAAGGAACATGGTTATTTCCGCAATGTAGTGGATGGCCAGCCTTTTACAAATTGGTATGATAATGGGAG
CAACCAAGTGGCTTTTGGGAGAGGAAACAGAGGATTCAATTGTTTTCAACAATGATGACTGGTCATTTTCTTTAAC
TTTGCAAACTGGTCTTCTGCTGGCACATACTGTGATGTCATTTCTGGAGATAAAATTAATGGCAATTGCACAGG
CATTAAATTTACGTTTCTGATGATGGCAAAGCTCATTTTCTATTAGTAACTCTGCTGAAGATCCATTTATTGC
AATTCATGCTGAATCTAAATTGTAAATTTTAAATTAATGCATGTCCTCAAAACAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAA

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FIGURE 570

MKFFLLLFTIGFCWAQYSPNTQQGRSIVHLFEWRWVDIALECERYLAPKGFGGVQVSPPNENVAIYNPFRPWWE
RYQPVSYKLCTRSGNEDEFNMVTRCANNVGVRIYVDAVINHMCNAVSAGTSSTCGSYFNPGSRDFPAVPYSGWD
FNDGKCKTGSGDIENYNDATQVRDCRLTGLLDLALEKDYVRSKIAEYMNHLIDIGVAGFRLDASKHMWPGDIKAI
LDKLHNLNSNWFPAGSKPFIYQEVIDLGGEPIKSSDYFGNGRVTEFKYGAKLGTVIRKWNGEKMSYLNWGEWG
FVPSDRALVFVDNHDNQRGHGAGGASILTFWDARLYKMAVGFMALHPYGFTRVMSSYRWPRQFQNGNDVNDWVGP
PNNNGVIKEVTINPDITTCGNDWVCEHRWRQIRNMVIFRNVVDGQPFTNWDNGSNQVAFGRGNRGFIVFNDDWS
FSLTLQTGLPAGTYCDVISGDKINGNCTGIKIYVSDDGKAHFSISNSAEDPFIAIHAESKL

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FIGURE 571A

TCTAGATGGGGGTCTTGGGCCCCAGGGTGTGCAGCCACTGACTTGGGGACTGCTGGTGGGGTAGGGATGAGGGAG
GGAGGGGCATTGTGATGTACAGGGCTGCTCTGTGAGATCAAGGGTCTCTTAAGGGTGGGAGCTGGGGCAGGGACT
ACGAGAGCAGCCAGATGGGCTGAAAGTGGAACCTCAAGGGGTTTCTGGCACCTACCTACCTGCTTCCCGCTGGGGG
GTGGGGAGTTGGCCAGAGTCTTAAGATTGGGGCAGGGTGGAGAGGTGGGCTCTTCTGCTTCCCACTCATCTTA
TAGCTTTTCTTTCCCCAGATCCGAATTCGAGATCCAACCAAGGAGGAAAGGATATCACAGAGGAGATCATGTCTG
GGGCCCCGACTGCCTCCACACCCACCCCTCCCCAGACGGGAGGCAGTCTGGAGCCTCAAGCTAATGGGGAGACGC
CCCAGGTTGCTGTCAATTGTCCGGCCAGATGACCGGTACAGGGAGCAATCATTGCTGACCGGCCAGGGCTGCCTG
GCCCAGAGCATAGCCCTTCAGAATCCCAGCCTTCGTGCGCTTCTCCGACCCCATCACCATCCCCAGTCTTGGAAC
CGGGGTCTGAGCCTAATCTCGCAGTCTCTCTATTCTTGGGGACACTATGACAACTATACAAATGTCTGTAGAAG
AATCAACCCCCATCTCCCGTGAACTGGGGAGCCATATCGCCTCTCTCCAGAACCCACTCCTCTCGCCGAACCCA
TACTGGAAGTAGAAGTGACACTTAGCAAACCGGTTCCAGAATCTGAGTTTCTTCCAGTCTCTCCAGGCTCCCA
CCCCTTTGGCATCTCACACAGTGGAATTCATGAGCCTAATGGCATGGTCCCATCTGAAGATCTGGAACCAGAGG
TGGAGTCAAGCCCAGAGCTTGCTCCTCCCCAGCTTGCCCCCTCCGAATCCCCCTGTGCCCATTGCTCCAACCTGCC
AACCTGAGGAACTGCTCAACGGAGCCCCCTCGCCACCAGCTGTGGACTTAAGCCCAGTCAGTGAGCCAGAGGAGC
AGGCCAAGGAGGTGACAGCATCAGTGGCGCCCCCACCATCCCCCTCTGCTACTCCAGCTACGGCTCCTTCAGCTA
CTTCCCCAGCTCAGGAGGAGGAAATGGAAGAAGAAGAAGATGAGGAAGAAGGAGAAGTAGGGGAAGCAGGGGAAG
GTGAGAGTGAGAAGAGAGGAGAGGAACTGCTCCCCCAGAGAGTACCCCTATTCCAGCCAACCTTGCTCTCAGAATT
TGGAGGCAGCAGCAGCCACTCAAGTGGCAGTATCTGTGCCAAAGAGGAGACGGAAAATTAAGGAGCTAAATAAGA
AGGAGGCTGTTGGAGACCTTCTGGATGCCTTCAAGGAGGCGAACCCGGCAGTACCAGAGGTGGAAAATCAGCCTC
CTGCAGGCAGCAATCCAGGCCAGAGTCTGAGGGCAGTGGTGTGCCCCACGTCTGAGGAAGCAGATGAGACCT
GGGACTCAAAGGAAGACAAAATTCACAATGCTGAGAACATCCAGCCCCGGGGAACAGAAGTATGAATATAAGTCAG
ATCAGTGGAAGCCTCCAAACCTAGAGGAGAAAAACGTTACGACCGTGAGTTCCTGCTTGTTTTAGTTTCATCT
TTTGCCAGATGCAGAAGCCAGAGGATTGCCACATATCAGTGACGTGGTGTGACAAGGCCAATAAAACACCAC
TGCGGCCACTGGATCCCCTAGACTACAAGGCATAAATTGTGGCCCAGACTTCACTCCATCCTTTGCCAACCTTG
GCCGACAACCCCTTAGCACCCGTGGGCCCCCAAGGGGTGGGCCAGGTGGGGAGCTCGCCCGTGGCGCGCAGGCTG
GCCTGGGACCCCCGGCGCTCTCAGCAGGGACCCCCGAAAAGAACCACGCAAGATCATTGCCACAGTGTTAATGACCG
AAGATATAAACTGAACAAAGCAGAGAAAGCCTGGAACCCAGCAGCAAGCGGACAGCGGCTGATAAGGATCGAG
GGGAAGAAGATGCTGATGGCAGCAAAACCCAGGACCTATTCCGCAGGTGGCGCTCCATCCTGAATAAACTGACAC
CCCAGATGTTCCAGCAGCTGATGAAGCAAGTGACGAGCTGGCCATCGACACCGAGGACGCCTCAAAGGGGTCTAT
TGACCTCATTTTTGAGAAGGCCATTTAGAGCCCAACTTCTCTGTGGCCTATCCAACATGTGCCGCTGCCTCATG
GCGCTGAAAGTGCCCACTACGGAAGCCAACAGTGACTGTGAACTTCCGAAAGCTGTTGTTGAATCGATGTCAGA
AGGAGTTTGAGAAAGACAAAGATGATGATGAGGTTTTTGAGAAGAAGCAAAAAGAGATGGATGAAGCTGCTACGG
CAGAGGAACGAGAACGCCTGAAGGAGGAGCTGGAAGAGGCTCGGGACATAGCCCGGCGCTGCTCTTTAGGGAATA
TCAAGTTTATTGGAGAGTTGTTCAAAGTGAAGATGTTAACAGAGGCAATAATGCATGACTGTGTGGTCAAAGTGC
TTAAGAACCATGATGAAGAGTCCCTTGAGTGCCTTTGTCTGCTGCTCACCACCTTGGCAAAGACCTGGACTTTG
AAAAAGCCAAGCCCCGAATGGATCAGTATTTCAACCAGATGGAAAAAATCATTAAAGAAAAGAAGACGTCATCCC
GCATCCGCTTTATGCTGCAGGACGTGCTGGATCTGCGAGGGAGCAATTGGGTGCCACGCCGAGGGGATCAGGGTC
CAAGACCATTGACCAGATCCATAAGGAGGCTGAGATGGAAGACATCGAGAGCAGATCAAAGTGCAGCAGCTCATG
CAAGGGCAGTGACAAGCGTCGGGGCGGTCTCCAGGCCCTCCCATCAGCCGTGGACTTCCCCTTGTTGGATGATGG
TGGCTGACACAGTTCCCATCAGCAAAGGTAGCCGCCCATTTGACACCTCACGACTACCAAGATCACCAAGCCTG
GCTCCATCGATTCTAACAACAGCTCTTTGCACCTGGAGGGCGACTGAGCTGGGGCAAGGGCAGCAGCGGAGGGT
CAGGAGCCCAGCCCTCAGACGCAGCATCAGAAGCTGCTCGCCCAGCTACTAGTACTTTGATTGCTTCTCAGCCC
TTCAACAAGCGGTACCCACAGAAAGCACAGATAATAGACGTGTGGTGCAGAGGAGTAGCTTGAGCCGAGAACGAG
GCGAGAAAGCTGGAGACCGAGGAGACCGCCTAGAGCGAGTGAACGGGGAGGGGACCGTGGGGACCGGCTTGATCG
TGTCGCGGACACCTGCTACCAAGCGGACGTTTCAAGGAAGTGGAGGAGCGGAGTAGAGAACGGCCCTCCCAGC
CTGAGGGGGCTGCGCAAGGCAGCTAGCCTCACGGAGGATCGGGACCGTGGGCGGGATGCCGTGAAGCGAGAAGCTG
CCCTACCCCCAGTGAGCCCCCTGAAGGCGGCTCTCTCTGAGGAGGAGTTAGAGAAGAAATCCAAGGCTATCATTG
AGGAATATCTCCATCTCAATGACATGAAAGAGGCAGTCCAGTGCCTGCAGGAGCTGGCCTCACCCCTCCTTGCTCT

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FIGURE 571B

TCATCTTTGTACGGCATGGTGTGCGAGTCTACGCTGGAGCGCAGTGCCATTGCTCGTGAGCATATGGGGCAGCTGC
TGCAACCAGCTGCTCTGTGCTGGGCATCTGTCTACTGCTCAGTACTACCAAGGGTTGTATGAAATCTTGGAATTGG
CTGAGGACATGGAAATTGACATCCCCCACGTGTGGCTCTACCTAGCGGAACTGGTAACACCCATTCTGCAGGAAG
GTGGGGTGCCCATGGGGGAGCTGTTTCAGGGAGATTACAAAGCCTCTGAGACCGTTGGGGCAAAGCTGCTTCCCTGT
TGCTGGAGATCCTGGGCCTCCTGTGCAAAAGCATGGGTCCATAAAAAGGTGGGGACGCTGTGGCGAGAAGCCGGGC
TTAGCTGGAAGGAATTTCTACCTGAAGGCCAGGACATTGGTGCATTTCGTCGCTGAACAGAAGGTGGAGTATACCC
TGGGAGAGGAGTCGGAAGCCCCCTGGCCAGAGGGCACTCCCCCTCCGAGGAGCTGAACAGGCAGCTGGAGAAGCTGC
TGAAGGAGGGCAGCAGTAACCAGCGGGTGTTCGACTGGATAGAGGCCAACCTGAGTGAGCAGATAGTATCCAACA
CGTTAGTTCGAGCCCTCATGACGGCTGTCTGCTATTCTGCAATTATTTTGGAGACTCCCCCTCCGAGTGGACGTTG
CAGTGCTGAAAGGCGACATAGTGTGTCAGAAATACCTGTGTGACGAAGCAGAAGGAGCTACAGGCGCTCTACGCC
TCCAGGCCCTTGTAGTGACCTTAGAACAGCCTCCCAACCTGCTGCGGATGTTCTTTGACGCACTGTATGACGAGG
ACGTGGTGAAGGAGGATGCCTTCTACAGTTGGGAGAGTAGCAAGGACCCCGCTGAGCAGCAGGGCAAGGGTGTGG
CCCTTAAATCTGTACAGCCTTCTTCAAGTGGCTCCGTGAAGTCAGAGGAGGAGTCTGACCACAACCTGAGGGCTG
GTGGGGCCGGGGACCTGGAGCCCCATGGACACACAGATGGCTCCGGCTAGCCGCCTGGACTGCAGGGGGGGCGGCA
GCAGCGGCGGTGGCAGTGGGTGCCTGTAGTGTGATGTGTCTGAACTAATAAAGTGGCTGAAGAGGCAGGATGGCT
TGGGGCTGCCTGGGCCCCCTCCAGGATGCCGCCAGGTGTCCCTCTCCTCCCCCTGGGGCACAGAGATATATTATA
TATAAAGTCTTGAAAATTTTGAATTTGGTGTGTCTTGGGGTGGGGAGGGGCACCAACGCCTGCCCCCTGGGGTCC
TTTTTTTTATTTTCTGAAAATCACTCTCGGACTGCCGTCTCGCTGCTGGGCATATGCCCCAGCCCCCTGTACCAC
CCCTGCTGTTGCCTGGGCAGGGGGAAGGGGGGCACGGTGCCTGTAATTATTAAACATGAATTCAATT

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FIGURE 572

MSGARTASTPTPPQTGGSLEPQANGETPQVAVIVRPDDRSQGAI IADRPGLPGPEHSPSESQPSSSPSTPSPSPV
LEPGSEPNLAVLSIPGDTMTTIQMSVEESTPISRETGEPYRLSPEPTPLAEP ILEVEVTLSKVPPESEFSSSPLO
APTPLASHTVEIHEPNGMVPSLEPEVESSPELAPPPACPSESPVPIAPTAQPEELLNGAPSPPAVDLSPVSEP
EEQAKEVTASVAPPTIP SATPATAPSATSPAQEEEMEEEEDEEEGEVGEAGEGESEKRGELLPPESTPI PANLS
QNLEAAAATQVAVSVPKRRRKIKELNKKEAVGDLLDAFKEANPAVPEVENQPPAGSNPGPESESGVPPRPPEAD
ETWDSKEDIHNAENIQPGEQKYEYKSDQWKPPNLEKKRYDREFLLGFQFIFCQMOKPEGLPHISDVVLDKANK
TPLRPLDPTRLQG INCGPDFTPSFANLGRITTLSTRGPPRGPGGELARGAQAGLGPRRSQQGPRKEPRKI IATVL
MTEDIKLNKA EKAWKPSSKRTAADKDRGEEDADGSKTQDLFRRWRSILNKLTQPMFQQLMKQVTQLAIDTEDASK
GSLTSFLRRPFQSP TSLWPIQHVPLPHGAESAHYGKPTVTVNFRKLLNRCQKEFEKDKDDDEVFEKKQKEMDEA
ATAEERERLKEELEEAR DIARRCSLGNIKFIGELFKLKMLTEA IMHDCVVKLLKNHDEESLECLCRLLTTIGKDL
DFEKAKPRMDQYFNQMEKI I KEKKTSSRIRFMLQDVLDLRGSNWVPRRGDQGPRPLTRSIRRLRWKTSRAHQSA
AHARAVTSVGAVLQALPSAVDFPLWMMVADTVPI SKGSRPIDTSRLTKITKPGSIDSNQLFAPGGRLSWGKGSS
GGSGAQPSDAASEAARPATSTLIRFSALQQAVPTTESTDNRRVVQRSSLSRERGEKAGDRGDRLERVNGETVGTG
LIVSRTPATKRTFSKEVEERSRERPSQPEGLRKAASLTEDRDRGRDAVKREAALPPVSPLKAALSEEELEKKS
IIEEYLHLNDMKEAVQCVQELASPSLLFIFVRHGVESTLERSAIAREHMGQLLHQLLCAGHLSTAQYYQGLYEIL
ELAEDMEIDIPHVWLYLAELVTPILQEGGVPMGELFREITKPLRPLGKAASLLEILGLLCKSMGPKKVGTLWRE
AGLSWKEFLPEGQDIGAFVAEQKVEYTLGEESEAPGQRALPSEELNRQLEKLLKEGSSNQRVFDWIEANLSEQIV
SNTLVRALMTAVCYSAIIFETPLRVDVAVLKGDIVLQKYLCD EAGATGALRLQALVVTLEQPPNLLRMFFDALY
DEDVVKEDAFYSWESSKDPAEQQGKGVALKSVTAFFKWLREVRGGV

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FIGURE 573

GGTAAGAGAAGACTGGAAGCATGTCGGAGTTTTGGTTAATTTCTGCCCTGGCGATAAGGAAAATTTGCAAGCTC
TGGAGAGGATGAATACTGTAACCTCCAAGTCCAACCTGTCTTATAATACCAAATTCGCTATTCTGACTTCAAGG
TGGGGACCTTGGATTCCCTGGTTGGCCTCTCTGATGAGTTGGGGAAAACCTCGACACCTTTGCTGAAAGCCTCATAA
GGAGAATGGCTCAGAGCGTGGTGGAAGTCATGGAGGACTCAAAGGGGAAGGTCAGGAGCACCTCCTGGCAAACG
GAGTTGACTTAACATCCTTTGTGACCCACTTTGAATGGGACATGGCCAAATATCCTGTCAAGCAGCCGCTCGTGA
GTGTGGTGGACACAATAGCCAAGCAACTGGCGCAGATCGAGATGGACCTGAAGTCCCGAACGGCCGCTACGACA
CTCTGAAGACAAACCTGGAGAACCTGGAAAAGAAATCCATGGGGAACCTCTTACCCGGACACTGAGTGATATTG
TGAGCAAAGAGGACTTCGTGCTGGATTCTGAATATCTCGTCACACTTCTGGTCATCGTCCCCAAACCAAACCTACT
CACAATGGCAAAAAACCTACGAATCTCTCTCAGACATGGTGGTCCCTCGATCAACCAAACCTATTACTGAGGACA
AGGAAGGGGGCCTTTTCACTGTGACTCTGTTTCGAAAAGTGATTGAAGATTTCAAACCAAGGCCAAAGAAAACA
AGTTCACTGTTTCGTGAATTTTACTATGATGAGAAGGAAATTGAAAGGGGAAAGGAGGAGATGGCCAGATTGCTGT
CTGATAAGAAGCAACAGTATGGCCCCCTGCTGCGCTGGCTCAAGGTGAACCTCAGTGAAGCCTTCATTGCCTGGA
TCCACATCAAGGCCCTGAGAGTGTGTTGTTGGAGTCCGTGCTCAGGTATGGACTACCAGTGAACCTCCAGGCAGTGC
TCCTGCAGCCGCATAAGAAGTCATCCACCAAGCGTTTTAAGAGAGGTTCTAAACTCTGTCTTCCGACATCTGGATG
AAGTAGCCCGCTACAAGTATACTGGATGCATCTGTGGAGATCCCGGGACTGCAACTCAATAACCAAGACTATTTTC
CTTATGTCTACTTCCATATTGACCTTAGTCTTCTTGACTAGAAAGGCCAGCTGGCACCTCTGTCTCATGTTTCGTG
CAGATTATTACAGACACCTCTTTCCCTTTAGCCAGAGAATGGTTCAAATGTCTTACAGAACTAAGATCTTTTTTCAG
AGAAATTGCTCACAAAAGTTAGTGACAGTTGTATTTATTTTTTAAAGTTACAATAAAATGCTCTCAAGTCCTTTG
AATGTTCCAACAAATTCAAACCTTCATTTTCTGAATGTTTTACATAAATGCGAACTACCTGTTTCGATTGGTAAC
CTGCTGCTGTATTTTCATGTCTTAACGGCTATTTTGAGGTTTCAATTAACAACATAGAAAGCCTTGAAGTGTATAACC
AGCTAGATTCTTAATAATTAGTCACTAGAGACAGCCCAAAGACAAATATTGGGCAGGAAATCAGTTCTCACTGA
GCCCCGTTTCCATGTAAAATCTCTGTTGTGGTGGGCATAGGTGGCACCATCTAAAGAAAAGAGGTCTTGTTTTTT
GTTTAAAAAGTTTGTGGGGAGGAAAGACATCTGTGTATCACTTCAAATATTGATTTACTGCTAAACATCACTC
TGAATTTATGATGTGGATACTAATTTCATACATTTATCGGCATTGTCCAAAATATTTTATTCTTTAATGGAAAA
GCCATTAATATTCAAATGAAGGGATCACATTAATAAAAAACCCATACATAAGAAACAGCCTCCAAGAACATTCAAG
CAGCAGTCAGAGAGAAAAATGTTTCGACAGCCAAGTTTTCTTCAAATATTATGTGACAGAATACGACTCAATTC
ACCGGCTACAACAATTTCATAGAATTTTTCAATGTTTTCTTGAGATGCAAAAGTTCACTGTTGCAGTGTTCAAA
TGACCAATCAAGTACTACTTCTTGTTTAAAGGCCACTGGTAGAGTCATCTGAGTGTAGAGAATGTCCCTTCACT
GCTGGAAAAATCCACTGGCTCCCAAGAAAAGAAAATGGTCTGAAGCCTCTGTTGTGGCTCTCACAACCTCATCTTT
CCCTAAGTCATCAAGCTCCACATCACTGAGGTCAATGTATCTCCACGGGAAGCTGGGAGACGACAGAAAGCCA
CTGTTAGATCTGCAGAAGGGGACACCCTGGAAGGTCAACATCTCATTTTATGGAAGAGCGACTCTCTGGAGCTAC
TCCTGCTACAATCCAGGTTCTCCTCAGTCTGACTCCTACCCTGACCTTCGTACCTATGATTATACGGATGGAAAA
GCTCAGAACTCAGGTGAAACATTTCAACATCACATCACTCACCATTTTAACACTGGAAGCCACTTGAACGTGTCC
TTTTGAGGAGGGTGGGACACAACAGTACAGAAATAAGTGCTAATTTCAAAGCTATCATTTTCTATTTTTCTAAGA
TAAAGTAAATGAATTCAGGTTAAATGTTCACTTTAAGGTAATAATCAGGAAAGCAACCTTACTACTGAAATGTA
TCTTGGCTGTCAAGAGTATCAAATGCCATGCAGCACTTAAACTTGTGATAAGGAAGATGAAGGGTCTTCAGAGAA
GAACCTCTTAAAGGCCACCGGTGCACCAGGGCTGAGGTCTGATGGGAAGGACTTGACTCCAGGTGCAGAGATG
CACAGGCTCAAGAGAGTAAACCAGGACTGCTGCCCCGACAGCTTCCCTCCCGGGCACTCACCTCGCCATCCCTGC
CGTCCCAAGGCTCTCTCTCAACGATGGTAGGGAAAGCCCCGCCCTCTACAGGTGCCGTGGAGCCACGCCCAAAG
AGAGCTCCCTTAGGGAAAAATGACCAAACACACACACATTTACAATGGACTGCTGGTGCAGAAGAATAAACA
ACTTTAAAAATAAAAAAAAAAAAAAAAAAAAAA

FIGURE 574

MSEFWLISAPGDKENLQALERMNTVTSKSNLSYNTKFAIPDFKVGTLDSLVLGSLDELGKLDTFAESLIRRMAQSV
VEVMEDSKGKVQEHL LANGVDLTSEVTHFEWDMAKYPVKQPLVSVVDTI AKQLAQIEMDLKSRTAAYDTLKTNLE
NLEKKSMGNLFTRTLSDIVSKEDFVLDSEYLVTL LVIVPKPNYSQWQKTYESLSDMVVPRSTKLITEDKEGGLFT
VTLFRKVIEDFKTKAKENKFTVREFYYDEKEIEREREEMARLLSDKKQYGPLLRLWKVNFSEAFIAWIIKALR
VFVESVLR YGLPVNFQAVLLQPHKKSSTKRLREVLNSVFRHLDEVAATSILDASVEIPGLQLNNQDYFPYVYFHI
DLSLLD

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FIGURE 575

AGATCTGAATCCAGAGGCTCTCGGAGGAAGAGCTCAGGCCACTGAGGCGGCTCCCAGCTGCGTTGGCGAC**ATGGC**
CGACACCCCCAGAGATGCCGGGCTCAAGCAGGCGCCTGCATCACGGAACGAGAAGGCCCGGTGGACTTCGGCTA
CGTGGGGATTGACTCCATCCTGGAGCAGATGCGCCGGAAGGCCATGAAGCAGGGCTTCGAGTTCAACATCATGGT
GGTTCGGGCAGAGCGGCTTGGGTAAATCCACCTTAATCAACACCCTCTTCAAATCCAAAATCAGCCGGAAGTCGGT
GCAGCCCACCTCAGAGGAGCGCATCCCCAAGACCATCGAGATCAAGTCCATCACGCACGATATTGAGGAGAAAGG
CGTCCGGATGAAGCTGACAGTGATTGACACACCAGGGTTCGGGGACCACATCAACAACGAGAAGTCTGGCAGCC
CATCATGAAGTTCATCAATGACCAGTACGAGAAATACCTGCAGGAGGAGGTCAACATCAACCGCAAGAAGCGCAT
CCCGGACACCCGCGTCCACTGCTGCCTCTACTTCATCCCCGCCACCGGCCACTCCCTCAGGCCCCCTGGAGCAGAA
AGTGCCTTTATCTCAGCCATCCGCAGACTGCTCGGCCAGATGCGGGGACAGGCTGGAAT**TGAGGG**AGGCGTCTTCA
TCTCCCTGCCATCCCCCTCTCACGCCACCCCCGCCCCACCGGGCTGCAGGTGCTGCTGATGCGCTGGGATCTGA
TTGAGGATAAAAAAGGAAGGAGAGATGACCCCTACCCCTCATCCCCAGTTTTGAAAAGGTCTAAGCAAGTGAGT
CTGGTGGAGGAGCTGAGGGAGGGAGCCATGGAAGGTGCCAGAAGGAAGGTTGGCGGGGGCACGTGTGGGCCGTGG
CTTGGGCTGGTCAGAGTGGCGTGAGCTGCCCGGCGCCTGCCCTGCCCAAGTGACCAGGGAAGTGTGTGTGTGCC
ATGTGTAATGCGTGTCCGTCTGTCTGTCTAGTGTCTGGGTTTGGCCCAAGACTGGGCTGTAGTTACATTAATGCCC
AGCCAGCCACCCCTGCCACTCACCCCTCCTGGCCCCAGGCCTTGCTGACTCTCTGAGCTGGGGAGGTGGGAGGCCA
GGCGAGCCTGACTCTGTTGATCTACCCGTGCCTGGGCCCCCTCCCCCTCAGAGCCCATGGTAACGAACCCCTAGAAA
GGAGAGAACGGGCGTCAGGGGTGCACAGTCCACAGCTGAAGAGCAAGGTTTCGTGGCAGCACGGCCCCGGCCCCCTC
ACCCTCTGTCCCCACGAGGGGACCCATGGGGGCTGTCTTTGCAGGGCACAGATGACCAAAGTCCCTTCCTGCTTC
CTGTTACCTGTCTTGCTCCTGGGGAGAAAGAGGGGCCTGATGAGACTCCACTCAGGTGCACACATCACCAGGTGC
ATCTGCAGGCACCGGGCTGGCTGCTTGCCAGCAGGAGAAGGTCAGCGAGAAGGAGTGTATGAGTGTGAGTGTGTG
TGCATGGAAGTTGGGGCACTGGGCGTCTGACTCCCTCCCCACCCAAGAGAGGAAGGACCCCTCACCACCCCCACT
GGCGAGACAGTTTACTTTGCCGACTTGCCATGTTTTTGCCAAAACCAAGATTTTGAAGGAAATGAGTGGCCAGCG
CCAGGGCCCAGGCCATGTGGCCTGCCAGCCTCAATGTCACTTGTTGGCGGGGTGGGGTGGGGTGGGCAGCAGC
ATCCCAGCCTTGAGATGCTTCACTTTCCTTCTGTAAACCAGACTTTGAAAAATTGTTCTGTTTCATCAGGCTCTG
TTCCTCAATGGCCTTTTGCTACGTGCCTCCCGAGAAATTTGTCTTTTGTATAAATGACAAAGTGTGAAAATGT
ATTTCTGAAATAAATGTTTCAAATGC

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FIGURE 576

MADTPRDAGLKQAPASRNEKAPVDFGYVGIDSILEQMRRKAMKQGFEFNIMVVGQSGLGKSTLINTLFKSKISRK
SVQPTSEERIPKTIEIKSITHDIEEKGVRLKLTVIDTPGFGDHINNENCWQPIIMKFINDQYEKYLQEEVNINRKK
RIPDTRVHCCLYFIPATGHSLRPLEQKVPLSQPSADCSARCGDRLE

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FIGURE 577

GTTCTTGCCTGGTGTCTGGTGGTTAGTTTCTGCGACTTGTGTTGGGACTGCTGATAGGAAGATGTCTTCAGGAAAT
GCTAAAATTGGGCACCCTGCCCCCACTTCAAAGCCACAGCTGTTATGCCAGATGGTCAGTTTAAAGATATCAGC
CTGTCTGACTACAAAGGAAAAATATGTTGTGTTCTTCTTTTACCCTCTTGACTTCACCTTTGTGTGCCCCACGGAG
ATCATTGCTTTTCACTGATAGGGCAGAAGAATTTAAGAACTCAACTGCCAAGTGATTGGTGCTTCTGTGGATTCT
CACTTCTGTCTATCTAGCATGGGTCAATACACCTAAGAAACAAGGAGGACTGGGACCCATGAACATTCTTTGGTA
TCAGACCCGAAGCGCACCATTTGCTCAGGATTATGGGGTCTTAAAGGCTGATGAAGGCATCTCGTTCAGGGGCCTT
TTTATCATTGATGATAAGGGTATTCTTCGGCAGATCACTGTAAATGACCTCCCTGTTGGCCGCTCTGTGGATGAG
ACTTTGAGACTAGTTCAGGCCTTCCAGTTCAGTACAAACATGGGGAAGTGTGCCAGCTGGCTGGAAACCTGGC
AGTGATACCATCAAGCCTGATGTCCAAAAGAGCAAAGAATATTTCTCCAAGCAGAAGTGAGCGCTGGGCTGTTTT
AGTGCCAGGCTGCGGTGGGCAGCCATGAGAACAAAACCTCTTCTGTATTTTTTTTTTCCATTAGTAAAACACAAG
ACTTCAGATTGAGCCGAATTGTGGTGTCTTACAAGGCAGGCCTTTCTACAGGGGGTGGAGAGACCAGCCTTTCT
TCCTTTGGTAGGAATGGCCTGAGTTGGCGTTGTGGGCAGGCTACTGGTTTGTATGATGTATTAGTAGAGCAACCC
ATTAATCTTTTGTAGTTTGTATTAACTTGAAGTGA

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FIGURE 578

MSSGNAKIGHAPNFKATAVMPDGQFKDISLSDYKGKYVVFYPLDFTFVCPTEIIAFSDRAEEFKKLNQVIG
ASVDSHFCHLAWVNTPKKQGGLGPMNIPLVSDPKRTIAQDYGVLKADEGISFRGLFIIDDKGILRQITVNDLPVG
RSVDETLRLVQAFQFTDKHGEVCPAGWKPGSDTIKPDVQKSKEYFSKQK

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FIGURE 579

GTCAC TCGTATAAAAA CCTATGCTTTGAAGGTTCTCGTGTGTCTCGGCCTGCAGGTCTCGCTCAGAGCTGTGTCC
CTGAACATCCACCC TGGTGGGCTTGACGCACTTCTGTGCAAATCTGTTTCGCTCGCAACCCTACCTACCTCT
CTCCCGAACCGGAGAAAACTTCGGCGGGGTCTTCCGGGTTTTGTGTGCAATCTGCGGCGGCGACCCGGCGCCG
CGTCACGCGGTGGTGAATGTGCGGCAGTACGCGCGCCGCGTCTTTACGCGGCGATTTCATCATGCTCCGAGCCG
GCGGCGCGCGCCGCTTCCGTCGCCACCCTCTCTGGACAGCCAGGGCCGCAGGCTCATGCCCTCTCCGCGTCCAG
TGCTGCTTAGAGGTGCTCGCGCCGCTCTGCTGCTGCTGCTGCCGCCCCGGCTCTTAGCCCCACCCTCGCTCCTCC
TCCGCCGGTCCCTCAGCGCGGCTCCTGCGCCCCGATCTCCTTGCCCCGCGCCCTCCCGGAGCAGCATGGACG
GCGCGGGGGCTGAGGAGGTGCTGGCACCTCTGAGGCTAGCAGTGCGCCAGCAGGGAGATCTTGTGCGAAACTCA
AAGAAGATAAAGCACCCCAAGTAGACGTAGACAAAGCAGTGGCTGAGCTCAAAGCCCGCAAGAGGGTTCTGGAAG
CAAAGGAGCTGGCGTTACAGCCCAAAGATGATATTGTAGACCGAGCAAAAATGGAAGATACCCTGAAGAGGAGGT
TTTTCTATGATCAAGCTTTTGTCTATTTATGGAGGTGTTAGTGGTCTGTATGACTTTGGGCCAGTTGGCTGTGCTT
TGAAGAACAATATTATTCAGACCTGGAGGCAGCACTTTATCCAAGAGGAACAGATCCTGGAGATCGATTGCACCA
TGCTCACCCCTGAGCCAGTTTTAAAGACCTCTGGCCATGTAGACAAATTTGCTGACTTCATGGTGAAAGACGTAA
AAAATGGAGAATGTTTTCTGTGCTGACCATCTATTAAAAGCTCATTTACAGAAATTGATGTCTGATAAGAAGTGTT
CTGTGCAAAAAGAAATCAGAAATGGAAAGTGTTTTGGCCCAGCTTGATAACTATGGACAGCAAGAACTTGCGGATC
TTTTTGTGAACATAATGTAAAATCTCCCATTACTGGAAATGATCTATCCCCCTCCAGTGTCTTTAACTTAATGT
TCAAGACTTTTCATTGGGCCTGGAGGAAACATGCCTGGGTACTTGAGACCAGAACTGCACAGGGGATTTTCTTGA
ATTTCAAACGACTTTTGGAGTTCAACCAAGGAAAGTTGCCTTTTGTGCTGCCAGATTGGAAATTCCTTTTAGAA
ATGAGATCTCCCTCGATCTGGACTGATCAGAGTCAGAGAATTCACAATGGCAGAAATTGAGCACTTTGTAGATC
CCAGTGAGAAAGACCACCCCAAGTTCAGAATGTGGCAGACCTTCACCTTTATTTGTATTACGAAAAGCCCAGG
TCAGCGGACAGTCCGCTCGGAAAATGCGCCTGGGAGATGCTGTTGAACAGGGTGTGATTAATAACACAGTATTAG
GCTATTTTCATTGGCCGCATCTACCTCTACCTCAGGAAGGTTGGAATATCTCCAGATAAACTCCGCTTCCGGCAGC
ACATGGAGAATGAGATGGCCCATTTATGCCTGTGACTGTTGGGATGCAGAATCCAAAACATCCTACGTTTGGATTG
AGATTGTTGGATGTGCTGATCGTTTCTGTTATGACCTCTCCTGTCATGCACGAGCCACCAAAGTCCCCTTGTAG
CTGAGAAAACCTCTGAAAGAACCCAAAACAGTCAATGTTGTTTCAGTTTGAACCCAGTAAGGGAGCAATTGGTAAGG
CATATAAGAAGGATGCAAACTGGTGATGGAGTATCTTGCCATTTGTGATGAGTGCTACATTACAGAAATGGAGA
TGCTGCTGAATGAGAAAGGGGAATTCACAATTGAACTGAAGGGAAAACATTTTCAGTTAACAAAAGACATGATCA
ATGTGAAGAGATTCCAGAAAACACTATATGTGGAAGAAGTTGTTCCGAATGTAATTGAACCTTCCTTCGGCCTGG
GTAGGATCATGTATACGGTATTTGAACATACATTCCATGTACGAGAAGGAGATGAACAGAGAACATTCTTCAGTT
TCCCTGCTGTAGTTGCTCCATTCAAATGTTCCGTCTTCCCACTGAGCCAAAACCAGGAGTTTCATGCCATTTGTCA
AGGAATTATCGGAAGCCCTGACCAGGCATGGAGTATCTCACAAAGTAGACGATTCCCTCTGGGTCAATCGGAAGGC
GCTATGCCAGGACTGATGAGATTGGCGTGGCTTTTGGTGTCAACCATTGACTTTGACACAGTGAACAAGACCCCC
ACACTGCAACTCTGAGGGACCGTGAATCAATGCGGCAGATAAGAGCAGAGATCTCTGAGCTGCCAGCATAGTCC
AAGACCTAGCCAATGGCAACATCACATGGGCTGATGTGGAGGCCAGGTATCCTCTGTTTGAAGGGCAAGAGACTG
GTAAAAAAGAGACAATCGAGGAATGAGGACAATTTTGACAACCTTTTGACCACTTGCGCTAATAAAAAAAAAAAAA
CTACTCTTATGTCCACTTTACAAAAGAAAACAGCATTGTGATTACTCCAGGGACCGTATTTTATCTTCAGTGGC
TGCTGATTTTACCCCAACAATTAAAGTTGAAGGAATCCTGA

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FIGURE 580

MDGAGAEVLAPLRLAVRQQGDLVRKLKEDKAPQVDVDKAVAEKARKRVLEAKELALQPKDDIVDRAKMEDTLK
RRFFYDQAFAYGGVSGLYDFGPVGCALKNNIIQTWRQHF IQEEQILEIDCTMLTPEPVLKTSGHVDFADFMVK
DVKNCECFRADHLLKAHLQKLMSDKKCSVEKKSEMESVLAQLDNYGQQELADLFVNYNVKSPITGNDLSPPVSFN
LMFKTFIGPGGNMPGYLRPETAQGI FLNFKRLLEFNQGKL PFAAAQIGNSFRNEISPRSLIRVREFTMAEIEHF
VDPSEKDHPKFQNVADLHLYLSAKAQVSGQSARKMRLGDAVEQGVINNTVLGYFIGRIYLYLTKVGISPDKLRF
RQHMENEMAHYACDCWDAESKTSYGWIEIVGCADRSCYDLSCHARATKVPLVAEKPLKEPKTVNVVQFEPKGA I
GKAYKKDAKLVMEYLAICDECYITEMEMLLNEKGFTIETEGKTFQLTKDMINVKRFQKTLYVEEVVNPVIEPSF
GLGRIMYTVFEHTFHVREGDEQRTFFSFPAVVAPFKCSVLPLSQNQEFMPFVKELSEALTRHGVSHKVDDSSGSI
GRRYARTDEIGVAFGVTIDFDTVNKTPHTATLRDRDSMRQIRAEISELPSIVQDLANGNITWADVEARYPLFEGQ
ETGKKETIEE

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FIGURE 581

GTAGGAGGACCTGAAATTGAGCTGATTGCCATCGCAACAGGAGGGCGGATCGTCCCCAGGTTCTCAGAGCTCACA
GCCGAGAAGCTGGGCTTTGCTGGTCTTGACAGGAGATCTCATTGGGACAACCTAAGGATAAAATGCTGGTCATC
GAGCAGTGTAAGAACTCCAGAGCTGTAACCATTTTTATTAGAGGAGGAAATAAGATGATCATTGAGGAGGCGAAA
CGATCCCTTCACGATGCTTTGTGTGTCATCCGGAACCTCATCCGCGATAATCGTGTGGTGTATGGAGGAGGGGCT
GCTGAGATATCCTGTGCCCTGGCAGTTAGCCAAGAGGCGGATAAGTGCCCCACCTTAGAACAGTATGCCATGAGA
GCGTTTGCCGACGCACTGGAGGTCATCCCCATGGCCCTCTCTGAAAAACAGTGGCATGAATCCCATCCAGACTATG
ACCGAAGTCCGAGCCAGACAGGTGAAGGAGATGAACCCTGCTCTTGGCATCGACTGTTTGACAAGGGGACAAAT
GATATGAAGCAACAGCATGTCATAGAAACCTTGATTGGCAAAAAGCAACAGATACTCTTGCAACACAAATGGTT
AGAATGATTTTGAAGATTGATGACATTCGTAAGCCTGGAGAATCTGAAGAAATGAAGACATTGAGAAAACCTATGTA
GCAAGATCCACTTCTGTGATTAAGTAAATGGATGTCTCGTGATGCGTCTACAGTTATTTATTGTTACATCCTTTT
CCAGACACTGTAGATGCTATAATAAAAATAGCTGTTTGGTAACCATAGTTTCACTTGTTCAAAGCCGTGTAATCG
TGGGGGTACTATCTCAACTGCTTTTGTATTTCATTGTATTAAAAGAATCTGTTTAAGCAAAAAAAAAAAAAAAAAA
AAAAAAA

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FIGURE 582

MLVIEQCKNSRAVTIFIRGGNKMIIEEAKRSLHDALCVIRNLIIRDNRVYGGGAAEISCALAVSQEADKCPTLEQ
YAMRAFADALEVIPMALSENSGMNPIQTMTEVRARQVKEMNPALGIDCLHKGTDNDMKQQHVIETLIGKKQQISLA
TQMVRMILKIDDIRKPGSEEE

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FIGURE 583

AATTCGGGGCCGTGGAGTTTGTGACATACGAGGTGACACCCCTCGAGTCACTTCCCTTCAACTCCAGCTGGAGC
 GCCTGCTTGGCTTTGGGTTTCGTTCTGCAGCCTTCGCCCGCTCCTAGCCTCAGGGCCGGACTCCAGCGCAGAGCC
 CAGCCCAGCGCAGCCTGCCAGCAGCCACCCAGCCGCCAGCCGCCAGCCCCGACGAAACCCGGCCAGAGCTTC
 CTAGCAGCCCCAGCCATGAACACCGAAATGTATCAGACCCCCATGGAGGTGGCGGTCTACCAGCTGCACAATTTT
 TCCATCTCCTTCTTCTCTCTGCTTGGAGGGGATGTGGTTTCCGTTAAGCTGGACAACAGTGCCTCCGGAGCC
 AGCGTGGTGGCCATAGACAACAAGATCGAACAGGCCATGGAICTGGTGAAGAATCATCTGATGTATGCTGTGAGA
 GAGGAGGTGGAGATCCTGAAGGAGCAGATCCGAGAGCTGGTGGAGAAGAACTCCAGCTAGAGCGTGAGAACACC
 CTGTTGAAGACCCTGGCAAGCCCAGAGCAGCTGGAGAAGTTCCAGTCTGTCTGAGCCCTGAAGAGCCAGCTCCC
 GAATCCCCACAAGTGCCCCGAGGCCCTGGTGGTTCTGCGGTGTAAGTGGCTCTGTCTCAGGGTGGGCAGAGCCA
 CTAACTTGTTTTACCTAGTTCTTTCCAGTTTGTTTTTGGCTCCCCAAGCATCATCTCAGGAGAGAACTTTACA
 CCTAGCACAGCTGGTGCCAAGAGATGTCCTAAGGACATGGCCACCTGGGTCCACTCCAGCGACAGACCCCTGACA
 AGAGCAGGTCTCTGGAGGCTGAGTTGCATGGGGCCTAGTAACACCAAGCCAGTGAGCCTCTAATGCTACTGCGCC
 CTGGGGGCTCCCAGGGCCTGGGCAACTTAGCTGCAACTGGCAAAGGAGAAGGGTAGTTTGAGGTGTGACACCAGT
 TTGCTCCAGAAAGTTTAAAGGGTCTGTTTTCTCATCTCCATGGACATCTTCAACAGCTTCACCTGACAACGACTGT
 TCCTATGAAGAAGCCACTTGTGTTTTAAGCAGAGGCAACCTCTCTCTTCTCTCTGTTTCGTGAAGGCAGGGGAC
 ACAGATGGGAGAGATTGAGCCAAGTCAGCCTTCTGTTGGTTAATATGGTATAATGCATGGCTTTGTGCACAGCCC
 AGTGTGGGATTACAGCTTTGGGATGACCGCTTACAAAGTTCTGTTTGGTTAGTATTGGCATAGTTTTTCTATATA
 GCCATAAATGCGTATATATACCCATAGGGCTAGATCTGTATCTTAGTGTAGCGATGTATACATATACACATCCAC
 CTACATGTTGAAGGGCCTAACCAGCCTTGGGAGTATTGACTGGTCCCTTACCTCTTATGGCTAAGTCTTTGACTG
 TGTTCAATTTACCAAGTTGACCCAGTTTGTCTTTTAGGTTAAGTAAGAACTCGAGAGTAAAGGCAAGGAGGGGGGC
 CAGCCTCTGAATGCGGCCACGATGCCTTGCTGCTGCAACCCTTTCCCCAGCTGTCCACTGAAACGTGAAGTCCT
 GTTTTGAATGCCAAACCCACCATTCACTGGTGTGACTACATAGAATGGGTTGAGAGAAGATCAGTTTGGGCTTC
 ACAGTGTCAATTTGAAAAAGCGTTTTTGTGTTTTGTTTTGAATTATTGTGAAAACTTTCAAGTGAACAGAAGGATGG
 TGTCTACTGTGGATGAGGGATGAACAAGGGGATGGCTTTGATCCAATGGAGCCTGGGAGGTGTGCCCAGAAAGC
 TTGTCTGTAGCGGGTTTTGTGAGAGTGAACACTTTCCACTTTTTGACACCTTATCCTGATGTATGGTTCCAGGAT
 TTGGATTTTGATTTTCCAAATGTAGCTTGAAATTTCAATAAACTTTGCTCTGTTTTTCTAAAAATAAAAA

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FIGURE 584

MNITEMYQTPMEVAVYQLHNFSISFFSLLGGDVVSVKLDNSASGASVVAIDNKIEQAMD LVKNHLMYAVREEVEI
LKEQIRELVEKNSQLERENTLLKTLASPEQLEKFQSCLSPEEPAPESPQVPEAPGGS AV

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FIGURE 585

GACGTTTCGCGCCAATTTTCGGTTGGCCGGCCACAGTCCACCGCGCGGAGATTCTCAGCTTCCCCAGGAGCAAGAC
CTCTGAGCCCCGCAAGCGCGGCCGCACGGCCCTCGGCAGCG**ATGC**CACTGAAGGACTACGCGCTAGAGAAGGAAA
AGGTTAAGAAGTTCTTACAAGAGTTCTACCAGGATGATGAACTCGGGAAGAAGCAGTTCAAGTATGGGAACCACT
TGGTTTCGGCTGGCTCATCGGGAACAGGTGGCTCTGTATGTGGACCTGGACGACGTAGCCGAGGATGACCCCGAGT
TGGTGGACTCAATTTGTGAGAATGCCAGGCGCTACGCGAAGCTCTTTGCTGATGCCGTACAAGAGCTGCTGCCTC
AGTACAAGGAGAGGGAAGTGGTAAATAAAGATGTCCTGGACGTTTACATTGAGCATCGGCTAATGATGGAGCAGC
GGAGTCGGGACCCTGGGATGGTCCGAAGCCCCCAGAACCAGTACCCTGCTGAACTCATGCGCAGATTTGAGCTGT
ATTTTCAAGGCCCTAGCAGCAGCAAGCCTCGTGTGATCCGGGAAGTGCAGGCTGACTCTGTGGGGAAGTTGGTAA
CTGTGCGTGGAATCGTCACTCGTGTCTCTGAAGTCAAACCCAAGATGGTGGTGGCCACTTACACTTGTGACCAGT
GTGGGGCAGAGACCTACCAGCCGATCCAGTCTCCCACTTTTCATGCCTCTGATCATGTGCCAAGCCAGGAGTGCC
AAACCAACCGCTCAGGAGGGCGGCTGTATCTGCAGACACGGGGCTCCAGATTTCATCAAATTCCAGGAGATGAAGA
TGCAAGAACATAGTGATCAGGTGCCTGTGGGAAATATCCCTCGTAGTATCACGGTGTGGTGAAGGAGAGAACA
CAAGGATTGCCCAGCCTGGAGACCACGTACGCGTCACTGGTATTTCTTGCCAATCCTGCGCACTGGGTTCGGAC
AGGTGGTACAGGGTTTACTCTCAGAAACCTACCTGGAAGCCCATCGGATTGTGAAGATGAACAAGAGTGAGGATG
ATGAGTCTGGGGCTGGAGAGCTCACCAGGGAGGAGCTGAGGCAAAATGCAGAGGAGGATTTCTACGAAAAGCTGG
CAGCTTCAATCGCCCCAGAAATATACGGGCATGAAGATGTGAAGAAGGCACTGCTGCTCCTGCTAGTCGGGGGTG
TGGACCAGTCTCCTCGAGGCATGAAAATCCGGGGCAACATCAACATCTGTCTGATGGGGGATCCTGGTGTGGCCA
AGTCTCAGCTCCTGTCTATACATTGATCGACTGGCGCCTCGCAGCCAGTACACAACAGGCCGGGGCTCCTCAGGAG
TGGGGCTTACGGCAGCTGTGCTGAGAGACTCCGTGAGTGGAGAAGTACCTTAGAGGGTGGGGCCCTGGTGTGG
CTGACCAGGGTGTGTGCTGCATTGATGAGTTCGACAAGATGGCTGAGGCCGACCGCACAGCCATCCACGAGGTCA
TGGAGCAGCAGACCATCTCCATTGCCAAGGCCGGCATTCTCACCACACTCAATGCCCGCTGCTCCATCCTGGCTG
CCGCCAACCCTGCCTACGGGCGCTACAACCCTCGCCGCAGCCTGGAGCAGAACATACAGCTACCTGCTGCACTGC
TCTCCCGGTTTGACCTCCTCTGGCTGATTAGGACCGGCCCCGACCGAGACAATGACCTACGGTTGGCCCAGCACA
TCACCTATGTGCACCAGCACAGCCGGCAGCCCCCTCCCACTTTGAACCTCTGGACATGAAGCTCATGAGGCGTT
ACATAGCCATGTGCCGCGAGAAGCAGCCCATGGTGCCAGAGTCTCTGGCTGACTACATCACAGCAGCATACTGCTG
AGATGAGGCGAGAGGCTTGGGCTAGTAAGGATGCCACCTATACTTCTGCCCCGACCCCTGCTGGCTATCCTGCGCC
TTTCCACTGCTCTGGCACGTCTGAGAATGGTGGATGTGGTGGAGAAAGAAGATGTGAATGAAGCCATCAGGCTAA
TGGAGATGTCAAAGGACTCTCTTCTAGGAGACAAGGGGCAGACAGCTAGGACTCAGAGACCAGCAGATGTGATAT
TTGCCACCGTCCGTGAACTGGTCTCAGGGGGCCGAAGTGTCCGGTTCTCTGAGGCAGAGCAGCGCTGTGTATCTC
GTGGCTTCACACCCGCCAGTTCCAGGCGGCTCTGGATGAATATGAGGAGCTCAATGTCTGGCAGGTCAATGCTT
CCCGGACACGGATCACTTTTGTCT**TGATT**CCAGCCTGCTTGCAACCCTGGGGTCCTCTTGTTCCCTGCTGGCCTGC
CCCTTGGGAAGGGGCAGTGATGCCTTTGAGGGGAAGGAGGAGCCCCCTTTTCTCCCATGCTGCACTTACTCCTTT
TGCTAATAAAAGTGTTTGTAGATTGTC

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FIGURE 586

MALKDYALEKEKVKKFLQEFYQDDELGKKQFKYGNQLVRLAHREQVALYVDLDDVAEDDPELVDSICENARRYAK
LFADAVQELLQPQKEREVVNKDVLDVYIEHRLMMEQSRDPGMVRSPQNQYPAELMRRFELYFQGPSSSKPRVIR
EVRADSVGKLVTVRGIVTRVSEVKPKMVVATYTCDCQGAETYQPIQSPTFMPLIMCPSQECQTNRSGGRLYLQTR
GSRFIKFQEMKMQEHSQVPVGNIPRSITVLVEGENTRIAQPGDHVSVTGIFLPILRTGFRQVVQGLLSETYLEA
HRIVKMNKSEDDESGAGELTREELRQIAEEDFYEKLAASIAPEIYGHEDVKKALLLLLVGGVDQSPRGMKIRGNI
NICLMGDPGVAKSQLLSYIDRLAPRSQYTTGRGSSGVGLTAAVLRDSVSGELTLEGGALVLADQGVCCIDEFDKM
AEADRTAIHEVMEQQTISIAGILTTLNARCSILAAANPAYGRYNPRRSLEQNIQLPAALLSRFDLLWLIQDRP
DRDNDLRLAQHITYVHQHSRQPPSQFEPLDMKLMRRYIAMCREKQPMVPESLADYITAAYVEMRREAWASKDATY
TSARTLLAILRLSTALARLRMVDVVEKEDVNEAIRLMEMSKDSL LGDKGTARTQRPADVIFATVRELVS GGRSV
RFSEAEQRCVSRGFTPAQFQAALDEYEELNVWQVNASRTRITFV

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FIGURE 587

CTTTCTGCCCACACTAGACATGGCGCTTGCCAGCGTGTTGGAGAGACCGCTACCGGTGAACCAGCGCGGGTTTTT
CGGACTTGGGGGTCGTGCAGATCTGCTGGATCTAGGTCCAGGGAGTCTCAGTGATGGTCTGAGCCTGGCCGCGCC
AGGCTGGGGTGTTCCAGAAGAGCCAGGAATCGAAATGCTTCATGGAACAACCACCCTGGCCTTCAAGTTCCGCCA
TGGAGTCATAGTTGCAGCTGACTCCAGGGCTACAGCGGGTGCTTACATTGCCTCCCAGACGGTGAAGAAGGTGAT
AGAGATCAACCCATACCTGCTAGGCACCATGGCTGGGGGCGCAGCGGATTGCAGCTTCTGGGAACGGCTGTTGGC
TCGGCAATGTCGAATCTATGAGCTTCGAAATAAGGAACGCATCTCTGTAGCAGCTGCCTCCAACTGCTTGCCAA
CATGGTGTATCAGTACAAAGGCATGGGGCTGTCCATGGGCACCATGATCTGTGGCTGGGATAAGAGAGGCCCTGG
CCTCTACTACGTGGACAGTGAAGGAACCGGATTTACGGGGCCACCTTCTCTGTAGGTTCTGGCTCTGTGTATGC
ATATGGGGTCATGGATCGGGGCTATTCCTATGACCTGGAAGTGGAGCAGGCCTATGATCTGGCCCGTCGAGCCAT
CTACCAAGCCACCTACAGAGATGCCTACTCAGGAGGTGCAGTCAACCTCTACCACGTGCGGGAGGATGGCTGGAT
CCGAGTCTCCAGTGACAATGTGGCTGATCTACATGAGAAGTATAGTGGCTCTACCCCTTGAAAGAGGGTGGATGC
AGCTGCTTGTGTTTCTTGGGGTGACTGTGATTGGTAATACGGACACAGTGACCCATCCTCCATCCTATTTATAGT
GGAAGGGCCTTCAATTGTATCAGTACTTTTTTTTAAAGCTCTGGCACATTGACCTCTATGTGTTACCAGTCATTAA
TGAGCTGCTGCAGAGGTGACTATTTGTTTTACTTTCTTGGATGTTAAACATTACACTACTCACTACTCAATCTCA

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FIGURE 588

MALASVLERPLPVNQRGFFGLGGRADLLDLGPGSLSDGLSLAAPGWGVPEEPGIEMLHGTTTTLAFKFRHGVIVAA
DSRATAGAYIASQTVKKVIEINPYLLGT MAGGAADCSFWERLLARQCRIYELRNKERISVAAASKLLANM VYQYK
GMGLSMGTMICGWDKRGPGLYYVDSEGNRISGATFSVGSGSVYAYGVMDRGYSYDLEVEQAYDLARRAIYQATYR
DAYSGGAVNLYHVREDGWIRVSSDNVADLHEKYSGSTP

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FIGURE 589

TCTCTTGATTCTAGTCTCTCGATATGGCACCTCCGTCACTCTTTGCCGAGGTTCCGCAGGCCCAGCCTGTCCTG
GTCTTCAAGCTCACTGCCGACTTCAGGGAGGATCCGGACCCCGCAAGGTCAACCTGGGAGTGGGAGCATATCGC
ACGGATGACTGCCATCCCTGGGTTTTGCCAGTAGTGAAGAAAGTGGAGCAGAAGATTGCTAATGACAATAGCCTA
AATCACGAGTATCTGCCAATCCTGGGCCTGGCTGAGTTCCGGAGCTGTGCTTCTCGTCTTGCCCTTGGGGATGAC
AGCCCAGCACTCAAGGAGAAGCGGGTAGGAGGTGTGCAATCTTTGGGGGGAACAGGTGCACCTCGAATTGGAGCT
GATTTCTTAGCGCGTTGGTACAATGGAACAAACAACAAGAACACACCTGTCTATGTGTCTCACCAACCTGGGAG
AATCACAATGCTGTGTTTTCCGCTGCTGGTTTTAAAGACATTCGGTCCTATCGCTACTGGGATGCAGAGAAGAGA
GGATTGGACCTCCAGGGCTTCCTGAATGATCTGGAGAATGCTCCTGAGTTCTCCATTGTTGTCCTCCACGCCTGT
GCACACAACCCAACTGGGATTGACCCAACTCCGGAGCAGTGAAGCAGATTGCTTCTGTCTATGAAGCACC GGTTT
CTGTTCCCTTCTTTGACTCAGCCTATCAGGGCTTCGCATCTGGAAACCTGGAGAGAGATGCCTGGGCCATTTCG
TATTTTGTGTCTGAAGGCTTCGAGTTCTTCTGTGCCAGTCCTTCTCCAAGAACTTCGGGCTCTACAATGAGAGA
GTCGGGAATCTGACTGTGGTTGGAAAAGAACCTGAGAGCATCCTGCAAGTCCTTTCCAGATGGAGAAGATCGTG
CGGATTACTTGGTCCAATCCCCCGCCAGGGAGCACGAATTGTGGCCAGCACCTCTCTAACCTGAGCTCTTT
GAGGAATGGACAGGTAATGTGAAGACAATGGCTGACCGGATTCTGACCATGAGATCTGAACTCAGGGCACGACTA
GAAGCCCTCAAAACCCCTGGGACCTGGAACCACATCACTGATCAAATTGGCATGTTTCAGCTTCACTGGGTTGAAC
CCCAAGCAGGTTGAGTATCTGGTCAATGAAAAGCACATCTACCTGCTGCCAAGTGGTCAATCAACGTGAGTGGC
TTAACCACCAAAAATCTAGATTACGTGGCCACCTCCATCCATGAAGCAGTCACCAAAATCCAGTGAAGAAACACC
ACCCGTCCAGTACCACCAAAGTAGTTCTCTGTCTATGTGTGTTCCCTGCCTGCACAAACCTACATGTACATACCAT
GGATTAGAGACACTTGCAGGACTGAAAGCTGCTCTGGTGAGGCAGCCTCTGTTTTAAACCGGCCCCACATGAAGAG
AACATCCCTTGAGACGAATTTGGAGACTGGGATTAGAGCCTTTGGAGGTCAAAGCAAATTAAGATTTTTATTTAA
GAATAAAAGAGTACTTTGATCATGAGACATAGGTATCTTGTCCCTCTCACTAAAAAGGAGTGTGTGTGTGGCGG
CCACGTGCTTCTATGTGGTGTGTTGACTCTGTACAAATTCTAGTCCCAAAGATCAAGTTGTCTGAAGGAGCCAAAG
TGTGAATGTGGGTGTCGGCTGCGGCATTAAATTCATCATCTCAACCCAGAGTGTCTGGTCTCCCTGCTCTTTCTG
CATGGTTGTGTCCCTAGTCCTAAGCTTTGGTTCTTTAGGGTGACTGTGGTAAGAAGGATATTTAATCATGACATG
CACGGACACGTACATATTTAACTGAAACAAGTTTTACCAAACAGTATTTACTCGTGATGTGCGTAGTGCAATTCTG
ATATTTTTGAGCCATTCTATTGTGTTCTACTTCACCTAAAAAATAAAATAAAATGTTGATCAAG

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FIGURE 590

MAPPSVFAEVPQAQPVLVFKLTADFREDPDPRKVN LGVGAYRTDDCHPWVLPVVKKVEQKIANDNSLNHEYLPIL
GLAEFRSCASRLALGDDSPALKEKRVGGVQSLGGTGALRIGADFLARWYNGTNNKNTPVYVSSPTWENHNAVFS
AGFKDIRSYRYWDAEKRGDLQGF LNDLENAPEFSIVVLHACAHNPTGIDPTPEQWKQIASVMKHRFLFPFFDSA
YQGFASGNLERDAWAIRYFVSEGFEFFCAQSFSKNFGLYNERVGNLTVVGKEPESILQVLSQMEKIVRITWSNPP
AQGARIVASTLSNP ELFEEWTGNVKT MADRILTM RSELRARLEALKTPGTWNHITDQIGMFSFTGLNPKQVEYLV
NEKHIYLLPSGRINV SGLTTKNLDYVATS IHEAVTKIQ

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FIGURE 591

GAATTGCTTTGGATCCATTTCCATCGGTCCTTACAGCCGCTCGTCAGACTCCAGCAGCCAAGATGGTGAAGCAG
ATCGAGAGCAAGACTGCTTTTCAGGAAGCCTTGGACGCTGCAGGTGATAAACTTGTAGTAGTTGACTTCTCAGCC
ACGTGGTGTGGGCCTTGCAAAATGATCAACCCTTTCTTTTCATTCCCTCTCTGAAAAGTATTCCAACGTGATATTC
CTTGAAGTAGATGTGGATGACTGTCAGGATGTTGCTTCAGAGTGTGAAGTCAAATGCACGCCAACATTCCAGTTT
TTTAAGAAGGGACAAAAGGTGGGTGAATTTTCTGGAGCCAATAAGGAAAAGCTTGAAGCCACCATTAATGAATTA
GTC**TAA**TCATGTTTTCTGAAAACATAACCAGCCATTGGCTATTTAACCTTGTATTTTTTTATTACAAAATATAA
ATATGAAGACATAACCAGTTGCCATCTGCGTGACAATAAACATTATGCTAA

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FIGURE 592

MVKQIESKTAFQEALDAAGDKLVVDF SATWCGPCKMINPFFHSLSEKYSNVIFLEVDVDDCQDVASECEVKCTP
TFQFFKKGQKVGEFSGANKEKLEATINELV

FIGURE 593

CTTGGAGGGAGGGATTAGAAGCCGCTAGACTTTTTTCTCCCTCTCAGTAGCACGGAGTCCGAATTAATTGGA
TTTCATTCACTGGGGAGGAACAAAACTATCTGGGCAGCTTCATTGAGAGAGATTCACTGACACTAAGAGCCAGC
GGCTGCAGCTGGGTGCAGAGAGAACCTCCGGCTTTACTTCTGTCTCGTCTGCCCCAACCGCTAGCCTCGGCTTGG
GTAAGGCGAGGCGGAATTAAACCCCGCTCCGAGAGCGGCAGCTTCGCGCGCGGTGCGCTCGGCCTATGCCTGCCC
CGAGGGGCGTCTGGTAGGCACCCCGCCCTCTCCCGCAGCTCGACCCCCATGATAGATACGCTCAGACCCGTGCCC
TTCGCGTCGGAAATGGCGATCAGCAAGACGGTGGCGTGGCTCAACGAGCAGCTGGAGCTGGGCAACGAGCGGCTG
CTGCTGATGGACTGCCGGCCGAGGAGCTATACGAGTCGTGCGACATCGAGTCGGCCATCAACGTGGCCATCCCC
GGCATCATGCTGCGGCGCCTGCAGAAGGGTAACCTGCCGGTGC GCGCGCTCTTCACGCGCGGCGAGGACCGGGAC
CGCTTACCCGGCGCTGTGGCACCAGACACAGTGGTGTCTACGACGAGAGCAGCAGCGACTGGAACGAGAATACG
GGCGGCGAGTCGTTGCTCGGGCTGCTGCTCAAGAAGCTCAAGGACGAGGGCTGCCGGGCGTTCTACCTGGAAGGT
GGCTTCAGTAAGTTCCAAGCCGAGTTCTCCCTGCATTGCGAGACCAATCTAGACGGCTCGTGTAGCAGCAGCTCG
CCGCCGTTGCCAGTGCTGGGGCTCGGGGCGCTGCCGATCAGCTCTGACTCTTCTCGGACATCGAGTCTGACCTT
GACCGAGACCCCAATAGTGCAACAGACTCGGATGGTAGTCCGCTGTCCAACAGCCAGCCTTCTTCCCAGTGAG
ATCTTGCCCTTCTCTACTTGGGCTGTGCCAAAGACTCCACCAACTTGGACGTGTTGGAGGAATTCGGCATCAAG
TACATCTTGAACGTCACCCCAATTTGCCGAATCTCTTTGAGAACGCAGGAGAGTTTAAATACAAGCAAATCCCC
ATCTCGGATCACTGGAGCCAAAACCTGTCCCAGTTTTTCCCTGAGGCCATTTCTTTCATAGATGAAGCCCGGGGC
AAGAACTGTGGTGTCTTGGTACATTGCTTGGCTGGCATTAGCCGCTCAGTCACTGTGACTGTGGCTTACCTTATG
CAGAAGCTCAATCTGTGATGAACGATGCCTATGACATTGTCAAAATGAAAAATCCAACATATCCCCTAACTTC
AACTTCATGGGTCAGCTGCTGGACTTCGAGAGGACGCTGGGACTCAGCAGCCCATGTGACAACAGGGTTCCAGCA
CAGCAGCTGTATTTTACCACCCCTTCCAACCAGAATGTATACCAGGTGGACTCTCTGCAATCTACGTGAAGACC
CCACATCCCTCCTTGCTGGAATGTGTCTGGCCCTTCAGCAGTTTCTCTTGGCAGCATCAGCTGGGCTGCTTTCTT
TGTGTGTGGCCCCAGGTGTCAAATGACACCAGCTGTCTGTACTAGACAAGGTTACCAAGTGC GGAATTGGTTAA
TACTAACAGAGAGATTTGCTCCATTCTCTTTGGAATAACAGGACATGCTGTATAGATACAGGCAGTAGGTTTGCT
CTGTACCCATGTGTACAGCCTACCCATGCAGGGACTGGGATTCGAGGACTTCCAGGCGCATAGGGTAGAACCAAA
TGATAGGGTAGGAGCATGTGTTCTTTAGGGCCTTGTAAGGCTGTTTCTTTTGCATCTGGAAGTACTATATAAT
TGTCTTCAATGAAGACTAATTCAATTTTGCATATAGAGGAGCCAAAGAGAGATTTAGCTCTGTATTTGTGGTAT
CAGTTTGGAAAAAAAATCTGATACTCCATTTGATTATTGTAAATATTTGATCTTGAATCACTTGACAGTGTG
TTTGAATTGTGTTTGTGTTTTCTTTGATGGGCTTAAAAGAAATTATCCAAAGGGAGAAAGAGCAGTATGCCACT
TCTTAAACAGAACAAAACAAAAAAGAAAATTGTGCTCTTTTCTAATCCAAAGGTATATTTGCAGCATGCTTG
ACTTTACCAATTCTGATGACATCTTTACGGACACTATTATCACTAAGACCTTGTTATGGCGAAGTCTTTAGTCTT
TTTCATGTATTTTCTCATGATTTTTTCTCTTTATGTAGTTTGACTATGCCTTACCTTTGTAAATATTTTTGCTT
GTGTTGTGCGAAAGGGGATAATCTGGGAAAGACACCAATCATGGGCTCACTTTAAAAAAGAAAGATAAAAAA
ACCTTCAGCTGTGCTAAACAGTATATTACCTCTGTATAAAATCTTCAGGGAGTGTACCTCAAATGCAATACTT
TGGGTTGGTTTCTTTCCTTTAAAAAATTTGTATAAACTGGAAGTGTGTGTGTGTGAGCATGGGTACCCATTTG
ATAAGAGAAATGCATTTGATTGTGAAGAAGGGAGAGTTAAATCTCCATTATGTTTCGTGGTGTAAAGTTTAGAGC
TGAATTTATTATAAGAATGTAAACCTTAAATTATTAATAAATAACTATTTTGGCTATTGAAAAAAAAAAAAA
AAAAAAA

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FIGURE 594

MIDTLRPVPFASEMAISKTVAWLNEQLELGNERLLLMDCRPQELYESSHIESAINVAIPGIMLRRLQKGNLPVRA
LFTRGEDRDRFTRRCGTDTVVLYDESSSDWNENTGGESLLGLLLKKLKDEGCRAFYLEGGFSKFQAEFSLHCETN
LDGSCSSSSPPLPVLGGLRISSDSSSDIESDLDRDPNSATDSGSPLSNSQPSFPVEILPFLYLGC AKDSTNL
DVLEEFGIKYILNVTPNLPNLFENAGEFKYKQIPISDHWSQNLSQFFPEAISFIDEARGKNCGVLVHCLAGISRS
VTVTVAYLMQKLNLSMNDAYDIVKMKKSNI SPNFNFMGQLLDFERTLGLSSPCDNRVPAQQLYFTTPSNQNVYQV
DSLQST

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FIGURE 595

CCAGCCTCGGAGGGAGGGATTAGAAGCCGCTAGACTTTTTTTCCTCCCCTCTCAGTAGCACGGAGTCCGAATTAA
TTGGATTTCAATTCAGTGGGGAGGAACAAAACTATCTGGGCAGCTTCATTGAGAGAGATTCAATTGACACTAAGAG
CCAGCGCTGCAGCTGGTGCAGAGAGAACCTCCGGCTTTGACTTCTGTCTCGTCTGCCCAAGGCCGCTAGCCTCG
GCTTGGGAAGGCGAGGCGGAATTAAACCCCGCTCCGAGAGCGCACGTTTCGCGCGCGGTGCGTCGGCCATTGCCTG
CCCCGAGGGGCGTCTGGTAGGCACCCCGCCCTCTCCCGCAGCTCGACCCCATGATAGATACGCTCAGACCCGTG
CCCTTCGCGTCGGAAATGGCGATCAGCAAGACGGTGGCGTGGCTCAACGAGCAGCTGGAGCTGGGCAACGAGCGG
CTGCTGCTGATGGACTGCCGGCCGAGGAGCTATACGAGTCGTGCGACATCGAGTCGGCCATCAACGTGGCCATC
CCGGGCATCATGCTGCGGCGCCTGCAGAAGGGTAACCTGCCGGTGCGCGCGCTCTTCACGCGCGGCGAGGACCGG
GACCGCTTACCCGGCGCTGTGGCACCACAGTGGTGTCTACGACGAGAGCAGCAGCGACTGGAACGAGAAT
ACGGGCGGCGAGTCGTTGCTCGGGCTGCTGCTCAAGAAGCTCAAGGACGAGGGCTGCCGGGCGTTTCTACCTGGAA
GGTGGCTTCAGTAAGTTCCAAGCCGAGTTCTCCCTGCATTGCGAGACCAATCTAGACGGCTCGTGTAGCAGCAGC
TCGCCGCCGTTGCCAGTGCTGGGGCTCGGGGGCCTGCCGATCAGCTCTGACTCTTCCTCGGACATCGAGTCTGAC
CTTGACCGAGACCCCAATAGTGCAACAGACTCGGATGGTAGTCCGCTGTCCAACAGCCAGCCTTCCTTCCCAGTG
GAGATCTTGCCCTTCCTCTACTTGGGCTGTGCCAAAGACTCCACCAACTTGGACGTGTTGGAGGAATTCGGCATC
AAGTACATCTTGAACGTACCCCCAATTTGCCGAATCTCTTTGAGAACGCAGGAGAGTTTAAATACAAGCAAATC
CCCATCTCGGATCACTGGAGCCAAAACCTGTCCAGTTTTTCCCTGAGGCCATTTCTTTTCATAGATGAAGCCCGG
GGCAAGAACTGTGGTGTCTTGGTACATTGCTTGGCTGGCATTAGCCGCTCAGTCACTGTGACTGTGGCTTACCTT
ATGCAGAAGCTCAATCTGTCGATGAACGATGCCTATGACATTGTCAAATGAAAAATCCAACATATCCCCTAAC
TTCAACTTCATGGGTGAGCTGCTGGACTTCGAGAGGACGCTGGGACTCAGCAGCCCATGTGACAACAGGGTTCCA
GCACAGCAGCTGTATTTTACCACCCCTTCCAACCAGAATGTATACCAGGTGGACTCTCTGCAATCTACGTGAAAG
ACCCACACCCCTCCTTGCTGGAATGTGTCTGGCCCTTCAGCAGTTTCTCTTGGCAGCATCAGCTGGGCTGCTTT
CTTTGTGTGTGGCCCCAGGTGTCAAATGACACCAGCTGTCTGTACTAGACAAGTTACCAAGTGCGGAATTGGT
TAATACTAACAGAGAGATTGTCTCCATTCTCTTTGGAATAACAGGACATGCTGTATAGATACAGGCAGTAGGTTT
GCTCTGTACCCATGTGTACAGCCTACCCATGCAGGGACTGGGATTCGAGGACTTCCAGGCGCATAGGGTAGAACC
AAATGATAGGGTAGGAGCATGTGTTCTTTAGGGCCTTGTAAGGCTGTTTCTTTTGCATCTGGAAGTACTATAT
AATTGTCTTCAAGTGAAGACTAATTCAATTTTGCATATAGAGGAGCCAAAGAGAGATTTAGCTCTGTATTTGTG
GTATCAGTGTGGAAAAGAGAAATCTGATACTCCATTTGGATTATTGTAAATATTTGATCTTGAATCACTTGACA
GTGTTTGTGTTGAATTGTGTTTGTGTTTTTCTTTTGTATGGGCTTAAAAGAAATTATCCAAAGGGAGAAAGAGCAGTA
TGCCACTTCTTAAAACAGAACAAAACAAAAAAGAAAATTGTGCTCTGTTGTAATCCAAAGGGGAGATTTGCAGC
ATGCTTGACTTTACCAATTCTGATGACATCTTTACGGACACTATTATCACTAAGACCTTGTTATGGCGAAGTCTT
TAGTCTTTTTCATGTATTTTCTCATGATTTTTTCTCTTTATGTAGTTTGAGTATGCCTTACCTTTGTAAATATT
TTTGCTTGTGTTGTGCAAGGGGATAATCTGGGAAAGACACCAAATCATGGGCTCACTTTAAAA

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FIGURE 596

MIDTLRPVPFASEMAISKTVAWLNEQLELGNERLLLMDCRPQELYESSHIESAINVAIPGIMLRRLQKGNLPVRA
LFTRGEDRDRFTRRCGTDIVVLYDESSDWNENTGGESLLGLLLKKLKDEGCRAFYLEDEARGKNCGVLVHCLAG
ISRSVTVTVAYLMQKLNLSMNDAYDIVKMKKSNI SPNFNFMGQLLDFERTLGLSSPCDNRVPAQQLYFTTPSNQN
VYQVDSLQST

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FIGURE 597

GCTGAGTCCAAGAGATAGCAAATCGAGTCTTAAATAATCCGGGGAGAAAGACGCCCGGGTAGATTTGAGGTGCAG
CCTTGGAGGGAGGGATTAGAAGCCGCTAGACTTTTTTCTCCCTCTCAGTAGCACGGAGTCCGAATTAATTGG
ATTTCACTTCACTGGGGAGGAACAAAACTATCTGGGCAGCTTCATTGAGAGAGATTCATTGACACTAAGAGCCAG
CGGCTGCAGCTGGGTGCAGAGAGAACCTCCGGCTTTACTTCTGTCTCGTCTGCCCAACCGCTAGCCTCGGCTTG
GGTAAGGCGAGGCGGAATTAAACCCCGCTCCGAGAGCGGCAGCTTCGCGCGCGGTGCGCTCGGCCTATGCCTGCC
CCGAGGGGCGTCTGGTAGGCACCCCGCCCTCTCCCGCAGCTCGACCCCAATGATAGATACGCTCAGACCCGTGCC
CTTCGCGTCGGAAATGGCGATCAGCAAGACGGTGGCGTGGCTCAACGAGCAGCTGGAGCTGGGCAACGAGCGGCT
GCTGCTGATGGACTGCCGGCCGAGGAGCTATACGAGTCGTCGCACATCGAGTCGGCCATCAACGTGGCCATCCC
GGGCATCATGCTGCCGGCGCCTGCAGAAGGGTAACCTGCCGGTGCGCGCGCTCTTCACGCGCGGCGAGGACCGGGA
CCGCTTCAACCGGCGCTGTGGCACCGACACAGTGGTGCTCTACGACGAGAGCAGCAGCGACTGGAACGAGAATAC
GGGCGGCGAGTCGGTGCTCGGGCTGCTGCTCAAGAAGCTCAAGGACGAGGGCTGCCGGGCGTTCTACCTGGAAGG
TGGCTTCAGTAAGTTCCAAGCCGAGTTCTCCCTGCATTGCGAGACCAATCTAGACGGCTCGTGTAGCAGCAGCTC
GCCGCCGTTGCCAGTGCTGGGGCTCGGGGGCCTGCCGATCAGCTCTGACTCTTCCTCGGACATCGAGTCTGACCT
TGACCGAGACCCCAATAGTGCAACAGACTCGGATGGTAGTCCGCTGTCCAACAGCCAGCCTTCCTTCCCAGTGG
GATCTTGCCCTTCTCTACTTGGGCTGTGCCAAAGACTCCACCAACTTGGACGTGTTGGAGGAATTCGGCATCAA
GTACATCTTGAACGTCACCCCAATTTGCCGAATCTCTTTGAGAACGCAGGAGAGTTTAAATACAAGCAAATCCC
CATCTCGGATCACTGGAGCCAAAACCTGTCCAGTTTTTCCCTGAGGCCATTTCTTTCATAGATGAAGCCCGGG
CAAGAACTGTGGTGTCTTGGTACATTGCTTGGCTGGCATTAGCCGCTCAGTCACTGTGACTGTGGCTTACCTTAT
GCAGAAGCTCAATCTGTCGATGAACGATGCCTATGACATTGTCAAAATGAAAAATCCAACATATCCCCTAACTT
CAACTTCATGGGTCAGCTGCTGGACTTCGAGAGGACGCTGGGACTCAGCAGCCCATGTGACAACAGGGTTCCAGC
ACAGCAGCTGTATTTTACCACCCCTTCCAACCAGAATGTATACCAGGTGGACTCTCTGCAATCTACGTGAAGAC
CCCACACCCCTCCTTGCTGGAATGTGTCTGGCCCTCAGCAGTTTCTCTTGGCAGCATCAGCTGGGCTGCTTTCT
TTGTGTGTGGCCCCAGGTGTCAAAATGACACCAGCTGTCTGTACTAGACAAGGTTACCAAGTGCGGAATTGGTTA
ATACTAACAGAGAGATTTGCTCCATTCTCTTTGGAATAACAGGACATGCTGTATAGATACAGGCAGTAGGTTTGC
TCTGTACCCATGTGTACAGCCTACCCATGCAGGGACTGGGATTCGAGGACTTCCAGGCGCATAGGGTAGAACCAA
ATGATAGGGTAGGAGCATGTGTTCTTTAGGGCCTTGTAAGGCTGTTTCTTTTGCATCTGGAAGTACTATATAA
TTGTCTTCAATGAAGACTAATTCAATTTTGCATATAGAGGAGCCAAAGAGAGATTTAGCTCTGTATTTGTGGTA
TCAGTTTGGAAAAAAATCTGATACTCCATTTGATTATTGTAAATATTTGATCTTGAATCACTTGACAGTGTGTTG
TTTGAATTGTGTTTGTGTTTTTCTTTGATGGGCTTAAAGAAATTATCCAAAGGGAGAAAGAGCAGTATGCCACT
TCTTAAACAGAACAAAACAAAAA

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FIGURE 598

MIDTLRPVPFASEMAISKTVAWLNEQLELGNERLLLMDCRPQELYESSHIESAINVAIPGIMLRRLQKGNLPVRA
LFTRGEDRDRFTRRCGTDTVVLYDESSDWNENTGGESVLGLLLKKLKDEGCRAFYLEGGFSKFQAEFSLHCETN
LDGSCSSSPPLPVLGLGGLRISSDSSSDIESDLDRDPNSATSDGSPLSNSQPSFPVEILPFLYLGC AKDSTNL
DVLEEFGIKYILNVTPNLPNLFENAGEFKYKQIPISDHWSQNLSQFFPEAISFIDEARGKNCGVLVHCLAGISRS
VTVTVAYLMQKLNLSMNDAYDIVKMKKSNI SPNFNFMGQLLDFERTLGLSSPCDNRVPAQQLYFTTPSNQNVYQV
DSLQST

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FIGURE 599

CCGGCGGCGCCTCAGGTCGCGGGGCGCCTAGGCCTGGGTTGTCCTTTGCATCTGCACGTGTTTCGCAGTCGTTTCC
 GCG**ATG**CTGCCTCTGCTGCGCTGCGTGCCCCGTGTGCTGGGCTCCTCCGTCGCCGGCCTCCGCGCTGCCGCGCCC
 GCCTCGCCTTTCCGGCAGCTCCTGCAGCCGGCACCCCGGCTGTGCACCCGGCCCTTCGGGCTGCTCAGCGTGCGC
 GCAGGTTCCGAGCGGCGGGCCCGGCTCCTGCGGCCTCGCGGACCCTGCGCCTGTGGCTGTGGCTGCGGCTCGCTG
 CACACCGACGGAGACAAAGCTTTTGTGATTTCTTGAGTGATGAAATTAAGGAGGAAAGAAAAATTCAGAAGCAT
 AAAACCCCTCCCTAAGATGTCTGGAGGTTGGGAGCTGGAAGTGAATGGGACAGAAGCGAAATTAGTGCAGAAAGTT
 GCCGGGGAAAAAATCACGGTCACTTTCAACATTAACAACAGCATCCCACCAACATTTGATGGTGAGGAGGAACCC
 TCGCAAGGGCAGAAGGTTGAAGAACAGGAGCCTGAACTGACATCAACTCCCAATTTCTGTGGTTGAAGTTATAAAG
 AATGATGATGGCAAGAAGGCCCTTGTGTTGGACTGTCATTATCCAGAGGATGAGGTTGGACAAGAAGACGAGGCT
 GAGAGTGACATCTTCTCTATCAGGGAAGTTAGCTTTTCACTGCGAGTCTGAATGGAAGGATACTAATTAT
 AACTCAACACAGATTCTTGGACTGGGCCTTATATGACCACCTAATGGATTTCTTGGCCGACCGAGGGGTGGAC
 AACACTTTTGCAGATGAGCTGGTGGAGCTCAGCACAGCCCTGGAGCACCAGGAGTACATTACTTTTCTTGAAGAC
 CTCAAGAGTTTTGTCAAGAGCCAG**TAG**AGCAGACAGATGCTGAAAGCCATAGTTTCATGGCAGGCTTTGGCCAGT
 GAACAAATCCTACTCTGAAGCTAGACATGTGCTTTGAAATGATTATCATCCTAATATCATGGGGGAAAAAATACC
 AAATTTAAATTATATGTTTTGTGTTCTCATTATTATCATTTTTTTCTGTACAAATCTATTATTTCTAGATTTTT
 GTATAACATGATAGACATAAAATTGGTTTATCTCCTCCGCTGAGTCTTCTAGAAAGTACCTGCTGGGTTCTCAGT
 TCCAGTTCCCATCCTTTGATTGATCACTCTCCCTGACATCCACCTGTATGACTTTGTCACCAATGCTGTCTTCT
 CTTTCTCCAATCAAGAAATAATAATCCCTCGAGTTTACAAAACAAAAAAAAAAAAAA

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FIGURE 600

MLPLLRCVPRVLGSSVAGLRAAAPASPFRQLLQPAPRLCTRPFGLLSVRAGSERRPGLLRPRGPCACGCGCGLH
TDGDKAFVDFLSDEIKEERKIQKHKTLPKMSGGWELELNGTEAKLVRKVAGEKITVTFNINNSIPPTFDGEEEPS
QGQKVEEQEPELTSTPNFVVEVIKNDDGKKALVLDCHYPEDEVGQEDAESEDFSIREVSFQSTGESEWKDTNYT
LNTDSL DWALYDHLMDFLADRGVDNTFADELVELSTALEHQEYITFLEDLKS FVKSQ

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FIGURE 601

GTAACCGCTACTCCCGGACACCAGACCACCGCCTTCCGTACACAGGGGCCCGCATCCCACCCTCCCGGACCTAAG
AGCCTGGGTCCCCGTGTTTCCGGAGGTCCGCTTCCCGGCCCCAGATTCTGGCATCCCAGCCCTCAGTGTCCAAGA
CCCAGGCAGCCCCGGGTCCCCGCCTCCCGGATCCAGGCGTCCGGGATCTGCGCCACCAGAACCTAGCCTCCTGCAG
ACCTCCGCCATCTGGGGGCACTCAACCTCCTGGAGCCAAGGGCCCCACGTCCCACCCAGAGAACTCTCGTATTCT
CCAGCTCCTAGGGCCAAGGAACCCGGGCGCTCCGAACCTCCAGCTTTCGGACATCTGGCACACGGGGCAGAGCAG
AGAAGCTCAGCGCCAGCCTGGGGAATTTAAACACTCCAGCTTCCAAGAGCCAAGGAACCTCAGTGTGTGAACCT
CACAACCTCTAAGGAGCCCTCCAAAGTTCCAGTCTCCAGGTGCTGTTACTCAACTCAGTCTAGGAACGTGGGTC
CTGGGAAGGAGCCCAAGCGCTCCAGCCAGCTTCCAGGCGCTAAGAAACCCCGGTGCTTCCCATCATGGTGGCCG
ATCCTCCTCGAGACTCCAAGGGGCTCGCAGCGCGGAGCCCCACGCCAACGGGGGCTGGCGCTGGCCTCCATCG
AGGACCAAGGCGCGCAGCAGGCGGCTACTGCGGTTCCCGGGACAGGTGCGCGCTGCCTTCGAGCCAACCTGC
TTGTGCTGCTGACAGTGGTGGCGCTGGTGGCCGGCGTGGCGCTGGGACTGGGGGTGTCGGGGGCGGGGGTGC
TGGCGTTGGGCCCCGAGCGCTTGAGCGCTTTCGTCTTCCCGGGCAGCTGCTGCTGCGTCTGCTGCGGATGATCA
TCTTGCCGCTGGTGGTGTGAGCTTGATCGGCGGCGCCGAGCCTGGACCCCGCGCGCTCGGCCGTCTGGGCG
CCTGGGCGCTGCTCTTTTTCTGGTACCACGCTGCTGGCGTGGCGCTCGGAGTGGGCTTGGCGCTGGCTCTGC
AGCCGGGCGCCGCTCCGCCGCCATCAACGCCTCCGTGGGAGCCGCGGGCAGTGCCGAAAATGCCCCAGCAAGG
AGGTGCTCGATTCTGTTCTGGATCTTGCGAGAAATATCTTCCCTTCCAACCTGGTGTGACGAGCCTTTCGCTCAT
ACTCTACCACCTATGAAGAGAGGAATATCACCGGAACCAGGGTGAAGGTGCCGTGGGGCAGGAGGTGGAGGGGA
TGAACATCCTGGGCTTGGTAGTGTGTTGCCATCGTCTTTGGTGTGGCGCTGCGGAAGCTGGGGCCTGAAGGGGAGC
TGCTTATCCGCTTCTTCAACTCCTTCAATGAGGCCACCATGGTCTGCTGCTCTGATCATGTGGTACGCCCCCTG
TGGGCATCATGTTCTGGTGGCTGGCAAGATCGTGGAGATGGAGGATGTGGGTTTACTCTTTGCCCGCCTTGGCA
AGTACATTCTGTGCTGCCTGCTGGGTACGCCATCCATGGGCTCCTGGTACTGCCCTCATCTACTTCTCTTCA
CCCCGAAAAACCCCTACCGCTTCTGTGGGGCATCGTGACGCCGCTGGCCACTGCCTTTGGGACCTCTTCCAGTT
CCGCCACGCTGCCGCTGATGATGAAGTGCCTGGAGGAGAATAATGGCGTGGCCAAGCACATCAGCCGTTTTCATCC
TGCCCATCGGCGCCACCGTCAACATGGACGGTGCCGCGCTCTTCCAGTGCCTGGCCGAGTGTTCATTGCACAGC
TCAGCCAGCAGTCTTGGACTTCGTAAAGATCATCACCATCCTGGTCACGGCCACAGCGTCCAGCGTGGGGGCAG
CGGGCATCCCTGCTGGAGGTGTCCTCACTCTGGCCATCATCCTCGAAGCAGTCAACCTCCCGGTGACCATATCT
CCTTGATCCTGGCTGTGGACTGGCTAGTCGACCGGTCTGTACCGTCTCAATGTAGAAGGTGACGCTCTGGGGG
CAGGACTCCTCCAAAATTATGTGGACCGTACGGAGTCGAGAAGCACAGAGCCTGAGTTGATACAAGTGAAGAGTG
AGCTGCCCCCTGGATCCGCTGCCAGTCCCCACTGAGGAAGGAAAACCCCTCCTCAAACACTATCGGGGGCCCGCAG
GGGATGCCACGGTCGCTCTGAGAAGGAATCAGTCATGTAAACCCCGGGAGGGACCTTCCCTGCCCTGCTGGGGG
TGCTCTTTGGACACTGGATTATGAGGAATGGATAAATGGATGAGCTAGGGCTCTGGGGGTCTGCCTGCACACTCT
GGGGAGCCAGGGGCCCCAGCACCTCCAGGACAGGAGATCTGGGATGCCCTGGCTGCTGGAGTACATGTGTTTACA
AGGGTTACTCCTCAAAACCCCCAGTTCTCACTCATGTCCCCAACTCAAGGCTAGAAAACAGCAAGATGGAGAAAT
AATGTTCTGCTGCGTCCCCACCGTGACCTGCCTGGCCTCCCCTGTCTCAGGGAGCAGGTACAGGTACCATGGG
GAATTCTAGCCCCACTGGGGGGATGTTACAACACCATGCTGGTTATTTTGGCGGCTGTAGTTGTGGGGGGATGT
GTGTGTGCAGT
CCACCCTGTCCCAGATCCCTATTCCCTCCACAATAACAGAAACACTCCCAGGGACTCTGGGGAGAGGCTGAGG
ACAAATACCTGCTGTCACTCCAGAGGACATTTTTTTTAGCAATAAAATTGAGTGTCAACTATTTAAAAA
AAAAA

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FIGURE 602

MVADPPRDSKGLAAAEPTANGGLALASIEDQGAAAGGYCGSRDQVRRCLRANLLVLLTVVAVVAGVALGLGVSGA
GGALALGPERLSAFVFPGELLRLRLMIILPLVVCSLIGGAASLDPGALGRLGAWALLFFLVTTLLASALGVGLA
LALQPGAASAAINASVGAAGSAENAPSKEVLDSFLDLARNIFPSNLVSAAFRSYSTTYEERNITGTRVKVPVGQE
VEGMNILGLVVFAIVFGVALRKLGPGEELLIRFFNSFNEATMVLVSWIMWYAPVGIMFLVAGKIVEMEDVGLLFA
RLGKYILCCLLGHAIHGLLVPLIYFLFTRKNPYRFLWGIVTPLATAFGTSSSSATLPLMMKCVEENNGVAKHIS
RFILPIGATVNMDGAALFQCVAAVFIAQLSQQSLDFVKIITILVTATASSVGAAGIPAGGVLTLLAIILEAVNLPV
DHISLILAVDWLVDRSCTVLNVEGDALGAGLLQNYVDRTESRSTEPELIQVKSELPLDPLPVPTTEGNPLLKHRY
GPAGDATVASEKESVM

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FIGURE 603

GGGATTTTTAAAAAATCAAATACAAATCCAACTTTTTGAGTTTTTCGTTGTCATTGCTCTTATCTTTCCTGAGTC
 ACTTCCCATTTTTCCAAACTCAGCAACCCAGTTTGCGAGTCTGGTTTCATGAACCTTTGTAAGGTGTTTGGTGCG
 GTCACRGTGTATACTTGCCGTGTAGTATTTGACTCAGCGCATCTGCCTTGAGTCATTTTACGCGGCCATTTAC
 TACTGCCGTTGAGCCCTGTCCACGCCTTGGGAGTGTTGATATGTTGAGAGTTTTCTGTCTGGCTGRGGAGGGATC
 ATTTAGTTTTTTCGGACGTATGTTGCACTGAGGATTTAGGGAGAGAGCAAGATTTCTGTTGAGGAGGTTTCAAG
 TATAAGGAATCGGGAGAGTAGATAGGAGTGAAGCATTGCGCAGCGTAAAGAAGCTTGGCTTAGCTTTAATGGATT
 AGGGAGAGATTGCTATCTAGCATTATTACATGTTATTGTTCTCTTTGCTATTTTATACACCTAGAACAACCTTTC
 CCTCGGGGTTAACAAACATCTTCAACTCTGTTTTCTGTATGGCTCCTGACTCTTACCTTTGTTTTAGGAGGCTTC
 CCTCTTCAGAGGAACTGGGAGAAGCCAATTTCCACTGCTTCTTTTTCTGTGCTTTTTTAACACTCAAACCCAG
 AACACTTAATCCTCTGCAGCTCGTGCAAAATTCAGTCTGTAATTTAAAAATGTTGTCACGGTACACTGCTGACCA
 TGGGCATGTCTATTGTTTGTATCTGTAATGTGTATGTCCATTTTCAGTGTGTCTGTTTTAGTATGCAGGTGATAG
 ACTAGAGAACAAGACCTCTGTCTCCGTAGCATCCTGGAGCAGTCTGAATGCCAGAAATGATAACCGTTTTGCTAC
 AGCATTTGTAATTGCTTGTGTGCTTAGCCTCATTTCACCATCTACATGGCAGCCTCCATTGGCACAGACTTCTG
 GTATGAATATCGAAGTCCAGTTCAAGAAAATTCAGTGATTTGAATAAAAGCATCTGGGATGAATTCATTAGTGA
 TGAGGCAGATGAAAAGACTTATAATGATGCATTTTTTCGATACAATGGCACAGTGGGATTGTGGAGACGGTGTAT
 CACCATACCCAAAAACATGCATTGGTATAGCCCACCAGAAAGGACAGAGTCATTTGATGTGGTCACAAAATGTGT
 GAGTTTACACTAACTGAGCAGTTCATGGAGAAATTTGTTGATCCCGGAAACCACAATAGCGGGATTGATCTCCT
 TAGGACCTATCTTTGGCGTTGCCAGTTCCTTTTACCTTTTGTGAGTTTAGGTTTGTGTGCTTTGGGGCTTTGAT
 CGGACTTTGTGCTTGCATTTGCCGAAGCTTATATCCCACCATTCACACGGGCATTCTCCATCTCCTTGCAGGTCT
 GTGTACACTGGGCTCAGTAAGTTGTTATGTTGCTGGAATTGAACTACTCCACCAGAACTAGAGCTCCCTGACAA
 TGTATCCGGTGAATTTGGATGGTCTTCTGCCTGGCTTGTGTCTCTGCTCCCTTACAGTTCATGGCTTCTGCTCT
 CTTTATCTGGGCTGCTCACACCAACCGGAAAGAGTACACCTTAATGAAGGCATATCGTGTGGCATGAGCAAGAAA
 CTGCCTGCTTTACAATTGCCATTTTTATTTTTTTAAAATAATACTGATATTTCCCCACCTCTCAATTGTTTTTA
 ATTTTTATTTGTGGATATACCATTTTATTATGAAAATCTATTTTATTATACACATTCACCACTAAATACACACT
 TAATACCACTAAAAATTTATGTGGTTTACTTTAAGCGATGCCATCTTCAAATAAACTAATCTAGGTCTAGACAGA
 AAGAAATGGATAGAGACTTGACACAAATTTATGAAAGAAAATTGGGAGTAGGAATGTGACCGAAAACAAGTTGTG
 CTAATGTCTGTTAGACTTTTTCAGTAAACTAAAGTAACTGTATCTGTTCAACTAAAACTCTATATTAGTTTCTT
 TGGGAAACCTCTCATCGTCAAACTTTATGTTCACTTTGCTGTTGTAGATAGCCAGTCAACCAGCAGTATTAGTG
 CTGTTTTCAAAGATTTAAGCTCTATAAAATTTGGGAAATTATCTAAGATCATTTTCCCTAAGCATTGACACATAGC
 TTCATCTGAGGTGAGATATGGCAGCTGTTTGTATCTGCACTGTGTCTGTCTACAAAAAGTGAAAAATACAGTGTT
 TACTTGAAATTTTAACTTTGTAAGTGAAGAATTCAGTTTCCGCGGCGAGGATTAGTATTATTTTTAACTCTC
 CGTAAGATTTTTCAGTACCACCAAATTTGTTTTGGATTTTTTTTCTTTCTTCTTACATACCAGGGTTATTAAAAGT
 GTGCTTTCTTTTTACATTATATTACAGTTACAAGGTAAAATTCCTCAACTGCTATTTATTTATTCCAGCCAGTA
 CTATAAAGAACGTTTCACCATAATGACCCTCCAGAGCTGGGAAACCTACCACAAGATCTAAAGTTCTGGCTGTCC
 ATTAACCTCCAACATATGGTCTTTATTTCTTGTGTAATATGATGTGCTTTCTTGCCTAAATCCCTTCTGGTG
 TGTATCAACATTATTTAATGTCTTCTAATTCAGTCATTTTTTTATAAGTATGTCTATAAACATTGAACTTTAAAA
 AACTTATTTATTTATCCACTACTGTAGCAATTGACAGATTAAAAAATGTAACCTCATAATTTCTTACCATAAC
 CTCAATGTCTTTTTTAAAAAATAAAATTAATAATGAAAAGAGAAA

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FIGURE 604

MDNRFATAFVIACVLSLISTIYMAASIGTDFWYEYRSPVQENSSDLNKS IWDEFISDEADEKTYNDALFRYNGTV
GLWRRCTITIPK NMHWYSPPERTESFDVVT KCVSFTLTEQFMEKFVDPGNHNSGIDLLR TYLWRCQFLLPFVSLGL
MCFGALIGLCACICRS LYPTIATGILHLLAGLCTLG SVSCYVAGIELLHQKLELPDNVSGEFGWSFCLACVSAPL
QFMASALFIWAAHTNRKEY TLMKAYRVA

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FIGURE 605

GGCACGAGGCTGCTGTTTGTCTACTTCCTCCTGCTTCCCCGCCGCCGCCGCCATCATGAGGGAAATCGTGCA
CTTGCAGGCCGGGCAGTGCGGCAACCAAATCGGCGCCAAGTTTTGGGAGGTGATCAGCGATGAGCACGGCATCGA
CCCCACGGGCACCTACCACGGGGACAGCGACCTGCAGCTGGAACGCATCAACGTGTACTACAATGAGGCCACCGG
CGGCAAGTACGTGCCCCGCGCGTGCTCGTGGATCTGGAGCCCGGCACCATGGACTCCGTGCGCTCGGGGCCCTT
CGGGCAGATCTTCCGGCCGGACAACCTTCGTTTTTCGGTCAGAGTGGTGCTGGGAACAACCTGGGCCAAGGGGCACTA
CACAGAAGGCGCGGAGCTGGTGGACTCGGTGCTGGATGTTGTGAGAAAAGGAGGCTGAGAGCTGTGACTGCCTGCA
GGGTTTTCCAGCTGACCCACTCCCTGGGTGGGGGGACTGGGTCTGGGATGGGTACCCTCCTCATCAGCAAGATCCG
GGAGGAGTACCCAGACAGGATCATGAACACGTTTAGTGTTGGTGCCCTTCGCCCAAAGTGTGAGACACAGTGGTGGA
GCCCTACAACGCCACCCTCTCAGTCCACCAGCTCGTAGAAAACACAGACGAGACCTACTGCATTGATAACGAAGC
TCTCTACGACATTTGCTTCAGAACCCTAAAGCTGACCACGCCCACCTATGGTGACCTGAACCACCTGGTGTCTGC
TACCATGAGTGGGGTCACCACCTGCCTGCGCTTCCAGGCCAGCTCAATGCTGACCTGCGGAAGCTGGCTGTGAA
CATGGTCCCGTTTCCCCGGCTGCACTTCTTCATGCCCGGCTTTGCCCCACTGACCAGCCGGGGCAGCCAGCAGTA
CCGGGCGCTGACCGTGCCCGAGCTCACCCAGCAGATGTTTGATGCCAAGAACATGATGGCTGCCTGCGACCCCCG
CCATGGCCGCTACCTGACGTTGCCGCCGTGTTTCAGGGGCCGCATGTCCATGAAGGAGGTGGATGAGCAAATGCT
TAATGTCCAAAACAAAAACAGCAGCTATTTTGTGAGTGGATCCCCAACAAATGTGAAAACGGCTGTCTGTGACAT
CCCACCTCGGGGGCTAAAAATGTCCGCCACCTTCATTGGCAACAGCACGGCCATCCAGGAGCTGTTCAAGCGCAT
CTCCGAGCAGTTCACGGCCATGTTCCGGCGCAAGGCCTTCCTGCACTGGTACACGGGCGAGGGCATGGACGAGAT
GGAGTTCACCGAGGCCGAGAGCAACATGAATGACCTGGTGTCCGAGTACCAGCAGTACCAGGATGCCACAGCCGA
GGAGGAGGGCGAGTTTCGAGGAGGAGGCTGAGGAGGAGGTGGCCTAGAGCCTTCAGTCACTGGGGAAAGCAGGGAA
GCAGTGTGAACCTCTTTATTCACTCCAGCCTGTCTGTGGCCTGTCCCACTGTGTGCACTTGCTGTTTTCCCTGT
CCACATCCATGCTGTACAGACACCACCATTAAGCATTTCATAGTGAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AA

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FIGURE 606

MREIVHLQAGQCGNQIGAKFWEVISDEHGIDPTGTYHGSDQLERINVYYNEATGGKYVPRAVLVDLEPGTMDS
VRSGPFGQIFRPDNFVFGQSGAGNNWAKGHYTEGAELVDSVLDVVRKEAESCDCLOGFQLTHSLGGGTGSGMGTL
LISKIREEYPDRIMNTFSVVPSPKVSDTVVEPYNATLSVHQLVENTDETYCIDNEALYDICFRTLKLTTPTYGDL
NHLVSATMSGVTTCLRFPGLNADLRKLAVNMVFPRLHFFMPGFAPLTSRGSQQYRALTVPELTQQMFDAKNMM
AACDPRHGRYLTVAAVFRGRMSMKEVDEQMLNVQNKNSYFVEWIPNNVKTAVCDIPPRGLKMSATFIGNSTAIQ
ELFKRISEQFTAMFRRKAFLHWYTGEGMDEMEFTEAESNMNDLVSEYQQYQDATAEEEEGEFEEEEEEVA

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FIGURE 607

CTATCAATCTCCAGAGCTTTTTCTTTTTAAGTGTGAGCGAGTTTATTAGAGAAGTAAAGAGACCCAAGAGTGCCCT
 ACTCCATAGACAGAGCAGCCACTGTGACACTGTACCCATTAAACACTAACTCTCCATTGCCCCCTCCAGCAACCCC
 TAGCACCCACTGTCTACTTTCTGTCTCTATGTGGTTGTCTATTTGAGGGACATCACATAAGTGGAGTCATATATT
 TGTCCTTTCATGTCTCCCTTATTTCAATTTAGCATAACGTTTTCAAGGGTTTCCTGTGTTGTGAATATATCAGAAT
 TTCATTCTCTTTTTAAGGTAGAATCATATCATTTTTAAACATTTTCAGTTGGACCATCTAAGTTTCAGTCCTTCATT
 TTCAACAATTAAAAACAGCCCTCAACCGGGTGCATCTCACGTTAGCTAGAGACAGAAGTGGAGCTAGAAGTCAG
 ATCTCTTACCAAAGTTGCCTTTCTTCTTCTGTGGGTAAAGTGGGGCACCCTTGGGACGCTGTGCTGGGCGTACATG
 GGTGCTTGATGAAGTTACTTGGTGGACTGATGTGATTGATGTCCAACATGTATGCAGGGACAGAGGCTATGGTCC
 CTACAGAGCAGGCATGGAGAGAAGGAGAAATACATACGGGCAGGAGCCAGGAGAGGGAGGGTGTAGTGAGCAGAG
 ACCGCGCCACTGCACTCCAGCCTGAGTGACAGAGTGAGAATCCATCTAAAAAATTGCTTACTAAAGAAGTGGTCT
 CCTGAGGTCTTAAGACGTTCCCTGGCAATGTCTTGAGTGGGTGGGAGAGAGCCTCCAGTCATTGAGCTGTGGAATT
 TCAGAGGTGAGAACCACACCTAACCCCAATTACTTTCCCTGTTTGCCCTCAGTGACACAGCTGCAGGAACCCCTG
 GTGGGTGTTGTATTAAGTAAATTTGACCTTTATTCTTTGAGATCTGTGAAATGTTGCTTCTGAGGGGCCACGT
 GTATCTGTAGTGCTGAGGACTCCTTGGGGCCTCTGAAGTCACAGAGAGAACCCTGCAGGGTGGGGGACCAGTGTGT
 GACAGCCCTGCTTTGCATTTTCTTTGAGAAGTGCTGTCAATTTTGCAATTTCTCTCCACCAGGGGAATCTTCAATCT
 TGAGAGGTGTGATCATAACTTGCCTTGTTTCTTGTCGCTACAGAGAACGGAAGGCTCCCTTGATGGAACCTTAGAC
 AGCAAGGCCAGATGCACATCCCTGGAAGGACATCCATGTTCCGAGAAGAACAGATGATCCCTGTATTTCAAGACC
 TCTGTGCACTTATTTATGAACCTGCCCTGCTCCACAGAACACAGCAATTCCTCAGGCTAAGCTGCCGGTTCTTA
 AATCCATCCTGCTAAGTTAATGTTGGGTAGAAAGAGATACAGAGGGGCTGTTGAATTTCCACATACCCTCCTTC
 CACCAAGTTGGAACATCCTTGAAATTTGGGAAGAGCACAAGAGGAGATCCAGGGCAAGGCCATTGGGATATTCTG
 AAACCTGAATATTTGTTTTGTGTCAGAGATAAAGACCTTTTCCATGCACCCTCATACACAGAAACCAATTTTCTT
 TTTTATACTCAATCATTTCTAGCGCATGGCCTGGTTAGAGGCTGGTTTTTCTCTTTTCTTTTGGTCTTCAAAG
 GCTTGTAGTTTTGGGTAGTCCTTGTTCTTTGAAATACACAGTGCTGACCAGACAGCCTCCCCCTGTCCCCTCTA
 TGACCTCGCCCTCCACAAATGGGAAAACAGACTACTTGGGAGCACCGCCTGTGAAATACCAACCTGAAGACACG
 GTTCATTAGGCAACGCACAAAACAGAAAATGAAGGTGGAACAAGCACATATGTTCTTCAACTGTTTTTGTCTAC
 ACTCTTTCTCTTTTCTCTACATGCTGAAGGCTGAAAGACAGGAAAGATGGTGCCATCAGCAATATTATTCTTA
 ATTGAAAACCTGAAATGTGTATGTTTCTTACTAATTTTTTAAAAATGTATTCCTTGCCAGGGCAGGCAAGGTCGTC
 ACGCCTGTAATCCCAGCACTTCAGGAGGCTGAGGTGGGCGGATC

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FIGURE 608

ATCTCACGTTAGCTAGAGACAGAACTGGAGCTAGCAGTCAGATCTCTTACAAAGTTGCCTTTCTTCTTCTGTGGG
TAAGTGGGGCACCCCTTGGGACGCTGTGCTGGGCGTACATGGGTGCTTGATGAAGTTACTTGGTGGACTGATGTGA
TTGATGTCCAACATGTATGCAGGGACAGAGGCTATGGTCCCTACAGAGCAGGCATGGAGAGAAGGAGAAATACAT
ACGGNN
NNNNNNNNNNNNNNNNNNNNNTTGCTTGCTAAAGAAGTGGTCTCCTTGAGGGTCTTAAGACGTTCTGACAATGTCTT
GAGTGGGTGGGAGAGAGGCTGCAGTCATTGTGCTGTGGAATTCAGAGGTGAGAACCACACCTAACC AAAATTAC
TTTCCCTGTTTGCCTCAGTGACACAGCTGCAGGAACCCTGGTGGGTGTTGTATTAAAGTAAATTTGACCTTTATTCT
TTTGAGATCTGTGAAATGTTGTCTTCTGAGGGGCCACGTGTATCTGTAGTGCTGAGGACTCCTTGGGCCTCTGA
AGTCACAGAGAGAACCCTGCAGGGTGGGGGACCAGTGTGTGACAGCCCTGCTTTGCATTTTCTTTGAGAAGTGCT
GTCATTTTGCATTTCTCTCCACCAGGGCAATCTTCAATCTTGAGAGGTGTGATCATAACTTGCCTTGTTTCTTGT
CGCTACAGAGAACGGAAGGCTCCCTTGATGGAACCTTAGACAGCAAGGCCAGATGCACATCCCTGGAAGGACATCC
ATGTTCCGAGAAGAACAGATGATCCCTGTATTTCAAGACCTCTGTGCACCTTATTTATGAACCTGCCCTGCTCCCA
CAGAACACAGCAATTCCTCAGGCTAAGCTGCCGGTTCTTAAATCCATCCTGCTAAGTTAATGTTGGGTAGAAAGA
GATACAGAGGGGCTGTTGAATTTCCACATACCCTCCTTCCACCAAGTTGGAACATCCTTGGAATTTGGAAGAGC
ACAAGAGGAGATCCAGGGCAAGGCCATTGGGATATTCTGAAACTTGAATATTTTGTGTTTGTGTCAGAGATAAAGAC
CTTTTCCATGCACCCTCATACAGAAACCAATTTTCTTTTTTATACTCAATCATTCTAGCGCATGGCCTGGTT
AGAGGCTGGTTTTTTCTCTTTTCTTTTGGTCTTCAAAGGCTTGATGTTTTGGGTAGTCCTTGTTCTTTGGAAAT
ACACAGTGCTGACCAGACAGCCTCCCCCTGTCCCTCTATGACCTCGCCCTCCACAAATGGGAAAACAGACTAC
TTGGGAGCACCGCCTGTGAAATACCAACCTGAAGACACCGTTTCAATCAGGCAACGCACAAAACAGAAAATGAAGG
TGGAACAAGCACAGATGTTCTTCAACTGTTTTTGTCTACACTCTTCTCTTTTCTCTACCATGCTGAAGGCTGA
AAGACAGGAAGATGGTGCCATCAGCAAATATTATTCTTAATTGAAAACCTGAAATGTGTATGTTTCTTACTAATT
TTTAAAAATGTATTCCTTGCCAGGCCTAGACAAGGATCGCTCACGCCTGTATATCCAGCACTTCAGGTAGAGCT
GAGGTGGGCGGTATCGACCTGAGGTCAGGTAGCTTTGAGACCAGCCTGATGAAACNNNNNNNNNNNNNNNNNNNN
NN
NNNNNNNNNNNNNNNNNNNNNTAGGTTGTAGTGTAGCGGACCTCGCGCCACTGGCACTCCTAGCTCTGAGTGACTA
GAGTGAGAATCCATCTCAAAAAACAAATAAAACAAAATTGCTTGCTAAAGAAGTGGTCTCCTGAGGTCTTAAGAC
ATTCTGACAGTGCTTGAGTGGGTGGGAGAGAGGCTGCTGTGCTATTGCGCTGTGGAATTTACAGATGAGAACCA
CGCCTAGCCAAAATCACTTTTCTGTTTGCCTCAGTGACACAGCTGCAGGGACCCTCGTGATGTTGTATTAAAT
AAATTTGACCTTTGCTCTTGCAGATCTGTGAAATGTTGTCTTCTGAGGGGCCACATGCATCTATAGTGCTGAGG
ACTCCTTGGGCCTCTGAAGTCACAGAGAGAACCGAGCAGGTCTATGTTTTTGT

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FIGURE 609

LT LARDRTGASSQISYKVAFLLLWVSGAPLGRCA GRTWVLDEVTWWTDVIDVQHVC RDRGYGPYRAGMERRRNTY
GXXXXXXXXXXXXXXXXXXXXXXXXXXXXXLLAKEVVS

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FIGURE 610

AGTGCGCATCCGGACGTAGGAGGTGGAGGTTGTGGAATTCGCCGTTTCGAAAGCAGGGACTAAAAGCCCCACTTCG
TCTTACGTTCCGAAAGGAAGGCGTCTGTTGAGCCTTTCTCTCAGTCGTGAGGGAGGCGTCGACGGCGTGC GGAAG
TCCTGAGTTGAGGCTTGC GGGATCCTTTCCGGAGAAAGCGCAGGCTAAAGCCGCAGGTGAAGATGTCCA ACTACG
TGAACGACATGTGGCCGGGCTCGCCGCAGGAGAAGGATTTCGCCCTCGACCTCGCGGTTCGGGCGGGTCCAGCCGGC
TGTCGTTCGCGGTCTAGGAGCCGCTCTTTTTCCAGAAGCTCTCGGTCCCATTTCCCGCGTCTCGAGCCGGTTTTTCGT
CCAGGAGTCGGAGGAGCAAGTCCAGGTCCCGTTCCTCGAAGGCGCCACCAGCGGAAGTACAGGCGCTACTCGCGGT
CATACTCGCGGAGCCGGTTCGCGATCCCGCAGCCGCCGTTACCGAGAGAGGCGCTACGGGTTACCCAGGAGATACT
ACCGGTCTCCTTCGCGGTACCGGTCCCGTCCCGTAGCAGGTTCGCGCTCTCGGGGAAGTCTGTA CTGCGGAAGGG
CGTACGCGATCGCGCGGGGACAGCGCTACTACGGCTTTGGTTCGCACAGTGTACCCGGAGGAGCACAGCAGATGGA
GGGACAGATCCAGGACGAGGTTCGCGGAGCAGAACCCCTTTTCGCTTAAGTGAAAAAGATCGAATGGAGCTGTTAG
AAATAGCAAAAACCAATGCAGCGAAAGCTCTAGGAACAACCAACATTGACTTGCCAGCTAGTCTCAGAACTGTTT
CTTCAGCCAAAAGAAACAAGCCGTGGAATAGGTGTATCAAGTAATGGTGCAAAGCCTGAAGTAAGTATTCTAGGTT
TGTCGGAACAAAACCTTTCAGAAAGCCAACTGTCAAATCTGATTAGCCACTTATATCTTAGACTATACTTTTTTGGG
AAGTCTAGAGATGTATATAATGTGCTAAATTCAAAGTAGCAAACTCTGAAGATAGGCAATGTCAAACCCATGAAAA
TGGGAGATTAATGAGCTTTATTTGGCCGTGCATGGTGCCTCATGCCTGTAATGAGGCAGATGGCTTGAGTCCAGG
AGTTCAAGACTAGCCTGGGCAATGTGGCAAACCGCGTGTTTACAAAAAATACAAAAATTAGCCAGGCATGGTGG
TGCATGCCTGTAGTCCCAGCTGTTTGGGAGGCTGAGGCAGGAGGATCTTTGAGCCTAGGATGCTAAGGTTGCAGT
GAGCCAAGATGGCACCATTGCACTCTAGCCTGGGCAGCAGAGCGAGACCCTGTCTCAAAAAATACATTTATTTTT
TTCATTTTCAGTTAACAGTGTACTCTTATAACACCGTTATTAGCTGGTACTTTGGTGATTTCTATTACTAGTTTT
TCTAAGCTATTTACAGAGTGTGTGTAGCTTTTATTTGCAGCATTATGTTCCCACAAATTCTGTACTCAGCATATA
CAGTATAGTTTATCTGCTCTATTTCTGTCTTATAGAAATCATGAATGTGGTCTGCAGACATTGATGAAGAAAATC
TGTTGGTAATTGATACATGGGCTAAAGCATCAGAGGTTTAATTTGAAGTTTATGTTACACACTGAAAACCTTAGT
TTTTTTGTTGGTAGATCCATGTGCATGCTAGAATTTGGGACAGGCACTATTTGCATAAAGTATTAAAGTCAATTT
TTAAACTAAGCAAAGGTACACGTTGTAACGGTGGGGCATCTGTGAAAAAGATGTCCCTTTTATAATATATGCAAT
ATATTCCAGATGTTTTGAGAGATTACAGAAGAGGAGGCCTGCTTCACTTGCAGATAAGTTTATTATAATTCTCCA
GAAATGTGCAGGATGTGCATTAGCAAATTGCACTGTACTTTTCACTCCAGCCTGGGTGACAGAGCAAGACTCCCG
TCTCGGGGGCTT

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FIGURE 611

MSNYVNDMWPGSPQEKDSPSTSRSGGSSRLSSRSRSRSFSRSSRSHSRVSSRFSSRSRRSKRSRSRRRHQKRYR
RYSRSYSRSRSRSRRYRERRYGFTRRYRSPSRYSRSRSRSRSRGRSYCGRAYAIARGQRYYGFGRTVYPEE
HSRWRDRSRTRSRRTPFRLSEKDRMELLEIAKTNAAKALGTTNIDLPA SLRTVPSAKETSRGIGVSSNGAKPEV
SILGLSEQNFQKANCQI

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FIGURE 612

GGACGTAGGAGGTGGAGGTTGTGGAATTCGCCGTTTCGAAAGCAGGGACTAAAAGCCCCACTTCGTCTTACGTTCC
GAAAGGAAGGCGTCTGTTGAGCCTTTCTCTCAGTCGTGAGGGAGGCGTCGACGGCGTGCGGAAGTCCTGAGTTGA
GGCTTGCGGGATCCTTTCCGGAGAAAGCGCAGGCTAAAGCCGCAGGTGAAGATGTCCAACCTACGTGAACGACATG
TGGCCGGGCTCGCCGCAGGAGAAGGATTTCGCCCTCGACCTCGCGGTTCGGGCGGGTCCAGCCGGCTGTCGTCGCGG
TCTAGGAGCCGCTCTTTTTCCAGAAGCTCTCGGTCCCATTTCCCGCGTCTCGAGCCGGTTTTTCGTCCAGGAGTCGG
AGGAGCAAGTCCAGGTCCCCTTCCCGAAGGCGCCACCAGCGGAAGTACAGGCGCTACTCGCGGTCTACTCGCGG
AGCCGGTCGCGATCCCGCAGCCGCCGTTACCGAGAGAGGCGCTACGGGTTACCAGGAGATACTACCGGTCTCCT
TCGCGGTACCGGTCCCGGTCCCGTAGCAGGTTCGCGCTCTCGGGGAAGGTCGTACTGCGGAAGGGCGTACGCGATC
GCGCGGGGACAGCGCTACTACGGCTTTGGTCGCACAGTGTACCCGGAGGAGCACAGCAGATGGAGGGACAGATCC
AGGACGAGGTTCGCGGAGCAGAACCCCTTTTCGCTTAAGTGAAAAAGATCGAATGGAGCTGTTAGAAATAGCAAAA
ACCAATGCAGCGAAAGCTCTAGGAACAACCAACATTGACTTGCCAGCTAGTCTCAGAACTGTTCTTCAGCCAAA
GAAACAAGCCGTGGAATAGGTGTATCAAGTAATGGTGCAAAGCCTGAACGTGTCGGAAGGTAACAGAAGATGGA
ACTCGAAATCCCAATGGAACCTACCCAGCAAAGAAGCATAGCTTTTAGCTCTAATAATTCTGTAGCAAAGCCA
ATACAAAAATCAGCTAAAGCTGCCACAGAAGAGGCATCTTCAAGATCACCAAAAAATAGATCAGAAAAAAGTCCA
TATGGACTGTGGATACCTATCTAAAAGAAGAAAACTGATGGCTAAGTTTGCATGAAAAGTCACTTTATTGCAAG
TTAGTGTCTTAGCATTATCCCATCCCTTTGAGCCATTTCAGGGGTACTTGTGCATTTAAAAACCAACACAAAAAG
ATGTAAATACTTAACACTCAAATATTAACATTTTAGGTTTCTCTTGCAGATATGAGAGATAGCACAGATGGACCA
AAGGTTATGCACAGGTGGGAGTCTTTTGTATATAGTTGTAAATATTGTCTTGGTTATGTAAAAATGAAATTTTTT
AGACACAGTAATTGAACTGTATTCTGTTTTGTATATTTAATAAATTTCTTGTTTTTCATTCTTAAAAA
AAAAAA

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FIGURE 613

CTTTTCTCCATCTCAGAACCTTCCTGCCGTCGCGTTTGACCTCGCTGCTCCAGCCTCTGGGGCGCATTCCAAC
CTTCCAGCCTGCGACCTGCGGAGAAAAAAATTACTTATTTTCTTGCCCCATACATACCTTGAGGCGAGCAAAAA
AATTAAATTTTAACCA**ATG**AGGGAAATCGTGCACATCCAGGCTGGTCAGTGTGGCAACCAGATCGGTGCCAAGTTC
TGGGAGGTGATCAGTGATGAACATGGCATCGACCCACCGGCACCTACCACGGGGACAGCGACCTGCAGCTGGAC
CGCATCTCTGTGTACTACAATGAAGCCACAGGTGGCAATATGTTCTCGTGCCATCCTGGTGGATCTAGAACCT
GGGACCATGGACTCTGTTTCGCTCAGGTCCTTTTGGCCAGATCTTTAGACCAGACAACCTTGTATTTGGTCAGTCT
GGGGCAGGTAACAACCTGGGCCAAAGGCCACTACACAGAGGGCGCCGAGCTGGTTGATTCTGTCCTGGATGTGGTA
CGGAAGGAGGCAGAGAGCTGTGACTGCCCTGCAGGGCTTCCAGCTGACCCACTCACTGGGCGGGGGCACAGGCTCT
GGAATGGGCACTCTCCTTATCAGCAAGATCCGAGAAGAATACCCTGATCGCATCATGAATACCTTCAGTGTGGTG
CCTTACCCAAAGTGTCTGACACCGTGGTCGAGCCCTACAATGCCACCCTCTCCGTCCATCAGTTGGTAGAGAAT
ACTGATGAGACCTATTGCATTGACAACGAGGCCCTCTATGATATCTGCTTCCGCACTCTGAAGCTGACCACACCA
ACCTACGGGGATCTGAACCACCTTGTCTCAGCCACCATGAGTGGTGTCAACACCTGCCTCCGTTTCCCTGGCCAG
CTCAATGCTGACCTCCGCAAGTTGGCAGTCAACATGGTCCCCCTTCCACGTCTCCATTTCTTTATGCCTGGCTTT
GCCCCCTCTCACCAGCCGTGGAAGCCAGCAGTATCGAGCTCTCAGAGTGCCGGAACACCCAGCAGGTCTTCGAT
GCCAAGGACATGATGGCTGCCTGTGACCCCGCCACGGCCGATACCTCACCCTGGCTGCTGTCTTCCGTGGTCCG
ATGTCCATGAAGGAGTTCGATGAGCAGATGCTTAACGTGCAGAACAAGAAGCAGCAGCTACTTTGTGGAATGGATC
CCCAACAATGTCAAGACAGCCGTCTGTGACATCCCACCTCGTGGCCTCAAGATGGCAGTCACCTTATTGGCAAT
AGCACAGCCATCCAGGAGCTCTTCAAGCGCATCTCGGAGCAGTTCACTGCCATGTTCCGCCGGAAGGCCTTCCTC
CACTGGTACACAGGCGAGGGCATGGACGAGATGGAGTTCACCGAGGCTGAGAGCAACATGAACGACCTCGTCTCT
GAGTATCAGCAGTACCAGGATGCCACCGCAGAAGAGGAGGAGGATTCGGTGAGGAGGCCGAAGAGGAGGCC**TAA**

GGCAGAGCCCCCATCACCTCAGGCTTCTCAGTTCCCTTAGCCGTCTTACTCAACTGCCCCCTTTCCTCTCCCTCAG
AATTTGTGTTTGCTGCCTCTATCTTGTTTTTTGTTTTTTCTTCTGGGGGGGGGTCTAGAACAGTGCCTGGCACAT
AGTAGGCGCTCAATAAATACTTGTTTGTTGAAAAAAAAAAAAAAAAA

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FIGURE 614

MREIVHIQAGQCGNQIGAKFWEVISDEHGIDPTGTYHGSDQLDRISVYYNEATGGKYVPRAILVDLEPGTMDS
VRSGPFGQIFRPDNFVFGQSGAGNNWAKGHYTEGAELVDSVLDVVRKEAESCDCLOGFQLTHSLGGGTGSGMGTL
LISKIREEYPDRIMNTFSVVPSPKVSDTVVEPYNATLSVHQLVENTDETYCIDNEALYDICFRTLKLTTPTYGDL
NHLVSATMSGVTTCLRFPGQLNADLRKLA VNMVFPRLHFFMPGFAPLTSRGSQQYRALTVPELTQQVFDKMM
AACDPRHGRYLTVA AVFRGRMSMKEVDEQMLNVQNKNSSYFVEWIPNNVKTAVCDIPPRGLKMAVTFIGNSTAIQ
ELFKRISEQFTAMFRRKAFLHWYTGEGMDEMEFTEAESNMNDLVSEYQQYQDATAEEEEEDFGEEAEEEA

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FIGURE 615

TGTTCGCGATCTTCTCAGGCTCTCCTAGCAGCATCCATCGCCGCCACCCTATCTTCACTGGCTTCACCTTCTCC
 TTCTCTCTTCGTTGCTGAGCGACAAGCTTCCTAGCGCT**ATG**ACTGTCTCGTCTCCGTCCCGCAGCGGGAGCCGCTCG
 TCCTGGGTGGCCGCTTGGCGCGCTTGGCTTTTCTCCCGAGGTTACTTTGGGGCCCTCCCGATGGTGACCACGG
 CTCCGCTCCTTTACCCCGGATCCCGGACCCCGGGCACTGCCCCGACCCTCTTCTCCTCCTCATTTCTAGGGG
 GAGATGGCCCGTGTCTGACCCCCAGCCTCGCGCTCCAGCAGCTCTGCCAAACCGCAGCCTCGCCGTGGCGGGAG
 GCACTCCTCGGGCAGCGCCGAAGAAGCGGGCGAAAGAAGAAGGTGCGGGCCAGCCCGCAGGGCAGCTGCCAGCC
 GCTTCCACCACTACCAGCAGCACCGGCCGAGTCTGGAGGGCGGCCGAGCCCGCGACCGGCCGAGCGGAGCGC
 AGGAGGTCCCGGGCCCGGCCGCGCCTTGGCCCCGAGTCTTGACGCCGAGCCGGCAGGAGGGAGCCAGCCCCG
 ACCTTGCCCCGCTGCGGCCCGCGGCTCCCGGCCAAACCCCTCAGGAAAGAGGTTTTAAATCAAAGATGGGAA
 AATCGGAGAAAATTGCCCTTCCCATGGCCAGCTTGTTCATGGTATACACTTGTATGAGCAACCAAAGATAAACA
 GACAGAAAAGCAAATATAACTTGCCACTAACCAAGATCACCTCTGCAAAAAGAAATGAAAACAACTTTTGGCAGG
 ATTCTGTTTTCATCTGACAGAATTGAGAAGCAGGAAAAAAGCCTTTTAAAAATACCGAGAACATTAAAAATTGCG
 ATTTGAAGAAATCAGCATTTCTAACTGAAGTGAGCCAAAAGGAAAATTATGCTGGGGCAAAGTTTAGTGATCCAC
 CTCTCCTAGTGTTCTTCCAAAGCCTCCTAGTCACTGGATGGGAAGCACTGTTGAAAATTCCAACAAAACAGGG
 AGCTGATGGCAGTACACTTAAAAACCTCCTCAAAAGTTCAA**ACTTAG**ATTTCAGATTTTCAATATGTGTGTAATAAC
 ATAATTTTTCCCATATCCCTGGACTCTTGAGAAAATTGGTACAGAAATGGAAATTTGCCTTGTTGCAACATACAA
 TTGCAAAAGATGAGTTTTAAAAAATTACATACAAACAGCTTGTATTATATTTTATATTTTGTAAATACTGTATACC
 ATGTATTATGTGTATATTGTTCACTTGGAGAGGTATATTATAGTTTTGTTATGAAAGTATGTATTTTGCCCTGC
 CCACATTGCAGGTGTTTTGTATATATACAATGGATAAATTTTAAGTGTGTGCTAAGGCACATGGAAGACCGATTT
 TATTTGCACAAGGTACTGAGATTTTTTTCAAGAAACAGCTGTCAAATCTCAAGGTGAAGATCTAAATGTGAACAG
 TTTACTAATGCACTACTGAAGTTTAAATCTGTGGCACAATCAATGTAAGCATGGGGTTTGTCTCTAAATTGAT
 TTGTAATCTGAAATTACTGAACAACCTCCTATTCCCATTTTGTCTAACTCAATTTCTGGTTTTGGTATATATCCA
 TTCCAGCTTAATGCCTCTAATTTTAATGCCAACAAAATTGGTTGTAATCAAATTTTAAATAATAATAATTGGC
 CCCCCCTTTTAAATAGTCTTGACTCTTTGTGTGTGACTGTTTCTCATGTTTGAATGTGTGACTAGGAGATGATT
 TTGTGTGGTTGGATTTTTTTGACTTCTACTTTACTGGCTGAGTGTGAGCCGCCATGCCTGGCCATAATCTACATT
 TTCTTACCAGGAGCAGCATTGAGGTTTTTGAGCATAGTACTTACTACTCTAGAGGCTGAGACGGGAGCATCTCT
 TGAGCCTGAGAAGTGAGATTGCAATTGAGCTAGGATCAGGCCACTGCACTCCAGCCTGGGTAACAGACGCTGTC
 TCAAAAAAAGGCCAAGAGAAAGTAAGGGAGACAGA

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FIGURE 616

MTVVSVPQREPLVLGGRLAPLGFSSRGYFGALPMVTTAPPPLPRIPDPRALPPTLFLPHFLGGDGPCLTPQPRAP
AALPNRSLAVAGGTPRAAPKKRRKKKVRASPAGQLPSRFHQYQQHRPSLEGGRSPATGPSGAQEVPGPAAALAPS
PAAAAGTEGASPD LAPLRPAAPGQTPLRKEVLKSKMGKSEKIALPHGQLVHGIHLYEQPKINRQKSKYNLPLTKI
TSAKRNNFWQDSVSSDRIQKQEKPKFKNTENIKNSHLKKS AFLTEVSQKENYAGAKFSDPPSPSVLPKPPSHW
MGSTVENSQNRELMVHLKTLLKVQT

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FIGURE 617A

AGAGATGGGTCTCGCCATCACCATGTTGCCAGTCTGGTCTCCAACCTCCTGGGCTCAAGCGATCCTCCTGCCTTG
GTCTCCCAAAGTGCTGGGATTACAGGTGTGAGCCCCACACCCGGCCTGAGTGAGTGGGTCTGAATGGTGACTG
TTGTTGTCCATAGCCTTCCCCCTGCTTCTGAGAGTGGAGTCCCTCCCTCATGTTGGAGACCTCCCAAGGTCCAT
GTGGTCCTATAGGGGCTGTTACAGCTCCCTAGCCCCCTAACGTGTCAGGTAATACTGTATATATTCCATGAAATG
TGAATAATTAGTTATATAATTCTAAGCACTTATTTTAAAAAACAGCAATGTGATGCTTAACTCTTCCACCTCT
GTTCTGTCCCCCTTAGAAAACCACTGATAACTCTTTTTTTTTTGGAGACGGAGTCTTGCCCTGTCGCCCAGGCT
GGAGTGTAGTGGCCTGATCTCGGCTCGGCTCATTGTAACCTCCGCCTCGGGTTTGAGCGATTCTCCTGCCTCAGC
CTCCTGAGTAGCTGGGATTATAGGCGTGCACCACCACGCCTGGCTAATTTTTTGTATCTTTAGTAGGGACGGGTT
TCACCATGTTGGCCAGAGTGGTCTTGAACCTCTGACCTTGTGATCCGCTCGCCTCAGCCTCCCAAAGTGCTGGGA
TTACAGGCATGAGCCACCGTGCCTGTCTAGAACCACTGGTAACCTTAACTGXXXAGTGTCTAAGAACGGAAG
CATCTGGGCTGGATGGAATTTAGCATCAAGCAGAGTCCCTTTCTGTTTCAAGTGTGTAAAGTGCATAAAGATG
AAGCAGGCACCAGAAATCCTCGGCAGTGCCAACGGGAAGACTCCGAGCTGCGAGGTGAACCGCGAGTGTCTGTG
TTCTCAGCAAAGCCCAGCTCTCCAGTAGCCTGCAGGAGGGGGTTCATGCAGAAGTTTAAACGGCCACGACGCCCTG
CCCTTTATTCCAGCCGACAAGCTGAAAGATCTTACTTCCCGGGTGTTAATGGAGAACCCGGCGCACACGATGCC
AAACTGCGTTTTTGGAGTCCCAGGAAATGAAAGGGATTGGGACACCCCTAACACTACCCCTATCAAAAATGGCTCT
CCAGAAATTAAGCTGAAATCACCAAAACATACATGAATGGGAAGCCTCTCTTTGAATCTTCCATTTGTGGTGAC
AGTGCTGCTGATGTGTCTCAGTCAGAAGAAAATGGACAAAACAGAAAACAAGGCGAGAAGGAACAGGAAGAGG
AGCATAAAATATGACTCCTTGCTGGAGCAGGGCCTTGTCTGAAGCAGCTCTTGTGTCTAAGATCTCAAGTCTTCA
GATAAAAAGATTCCAGCTAAGAAAGAGTCTTGTCCAAACACTGGAAGAGACAAAGACCACCTGTTGAAATACAAC
GTTGGTGATTTGGTGTGGTCCAAAGTGTGGGTTACCCTTGGTGGCCTTGCATGGTTTCTGCAGATCCACTCCTT
CACAGCTATACCAAACCTAAAGGTGAGAAAAGAGTGCACGCCAGTATCACGTACAGTTCTTTGGTGACGCCCCA
GAAAGAGCTTGGATATTTGAGAAGAGCCTCGTAGCTTTTGAAGGAGAAGGACAGTTTGAAAAATTATGCCAGGAA
AGTGCCAAGCAGGCACCCACGAAAGCTGAGAAAATTAAGCTATTGAAACCAATTTTCAAGGAAATTGAGGGCCAG
TGGGAAATGGGCATTGTTCAAGCAGAAGAAGCTGCAAGCATGTGAGTGGAGGAGCGGAAAGCCAAGTTCACCTTT
CTCTATGTGGGGGACCAGCTTCATCTCAACCCTCAAGTAGCCAAGGAGGCTGGCATTGCTGCAGAGTCTTTGGGA
GAAATGGCAGAATCCTCAGGAGTCAGTGAAGAAGCTGCTGAAAACCCCAAGTCTGTGAGAGAAGAGTGCATTCCC
ATGAAGAGAAGGCGGAGGGCCAAACTGTGTAGCTCTGCAGAGACCCTGGAGAGTACCCCGACATAGGGAAGAGT
ACTCCTCAAAAGACGGCAGAGGCTGACCCAGAAAGAGGAGTAGGGTCTCCTCCTGGGAGGAAGAAGACCACAGTC
TCCATGCCACGAAGCAGGAAGGGAGATGCAGCATCCCAGTTTTTGGTCTTCTGTCAAAAACACAGGGATGAGGTG
GTAGCTGAGCACCAGATGCTTCAGGTGAGGAGATTGAAGAGCTGCTCAGGTACAGTGGAGTCTGCTGAGTGAG
AAGCAGAGAGCACGCTACAACACCAAGTTTGCCCTGGTGGCCCCCTGTCCAGGCTGAAGAAGACTCTGGTAATGTA
AATGGGAAAAAAGAAACCACACAAAGAGGATACAGGACCCTACAGAAGATGCTGAAGCTGAGGACACACCCAGG
AAAAGACTCAGGACGGACAAGCACAGTCTTCGGAAGAGAGACACAATCACTGACAAAACGGCCAGAAACAAGCTCT
TACAAGGCCATGGAGGCAGCCTCCTCGCTCAAGAGCCAGGCAGCAACGAAAAATCTGTCTGATGCATGTAAACCA
CTGAAGAAGCGAAATCGGGCTTCCACGGCAGCATCTTCAGCTCTTGGGTTTAGCAAAAGTTTCATCTCCTTCTGCA
TCCTTAACTGAGAATGAGGTCTCGGACAGCCCGGAGACGAGCCCTCGGAGTCCCATAACGAAAGTGCAGACGAA
ACACAACTGAAGTATCTGTCTCATCAAAAAGTCTGAGCGAGGAGTACTGCCAAAAGGAGTATGTGTGCCAG
CTGTGTGAGAAGCCGGGCAGCCTCCTGCTCTGTGAAGGACCCTGCTGCGGAGCTTTCCACCTCGCCTGCCTTGGG
CTTTCCCGGAGGCCAGAAGGGAGGTTACCTGCAGCGAGTGTGCCCTCAGGGATTCACTCATGTTTCGTGTGTAAA
GAGAGCAAGACAGATGTTAAGCGCTGTGTGGTAACTCAGTGTGGAAAATTTTACCATGAGGCTTGTGTGAAAAAA
TACCCTCTGACTGTATTTGAGAGCCGAGGTTTCCGCTGCCCCCTCCACAGCTGTGTGAGCTGCCATGCTTCCAAC
CCTTCAAACCCAAGGCCGTCAAAGGTAAATGATGCGGTGTGTCCGCTGCCCCGTTCCTATCACAGCGGGGAT
GCTTGTCTGGCAGCAGGATGCTCAGTGATCGCCTCCAACAGCATCATCTGCACTGCCCACTTCACTGCTCGGAAG
GGGAAGCGACACCACGCCACGTCAACGTGAGCTGGTGTCTCGTGTGCTCCAAAGGGGGGAGCCTTCTGTGTGTG
GAGTCTTGCCAGCGGCCTTCCACCCTGACTGCCTGAACATCGAGATGCCTGACGGCAGCTGGTTCTGCAATGAC
TGCAGGGCTGGGAAGAAGCTGCACTTCCAGGATATCATTTGGGTGAAACTTGGGAACACAGATGGTGGCCGGCA
GAAGTTTGCCATCCCAAAAATGTTCCCCCAAATATTGAGAAAATGAAGCACGAGATTGGAGAATTCCCTGTGTTT
TTCTTTGGGTCTAAAGATTATTACTGGACGCATCAGGCGCGAGTGTCCCGTACATGGAGGGGGACCGGGGCAGC

FIGURE 617B

CGCTACCAGGGGGTCAGAGGGATCGGAAGAGTCTTCAAAAACGCACTGCAAGAAGCTGAAGCTCGTTTTTCGTGAA
ATTAAGCTTCAGAGGGAAGCCCCGAGAAACACAGGAGAGCGAGCGCAAGCCCCCACCATACAAGCACATCAAGGTG
AATAAGCCTTACGGGAAAGTCCAGATCTACACAGCGGATATTTTCAGAAATCCCTAAGTGCAACTGCAAGCCCACA
GATGAGAATCCTTGTGGCTTTGATTTCGGAGTGTCTGAACAGGATGCTGATGTTTGAGTGCCACCCGCAGGTGTGT
CCCGCGGGCGAGTTCTGCCAGAACCAGTGTTCACCAAGCGCCAGTACCCAGAGACCAAGATCATCAAGACAGAT
GGCAAAGGGTGGGGCCTGGTCGCCAAGAGGGACATCAGAAAGGGAGAATTTGTTAACGAGTACGTTGGGGAGCTG
ATCGACGAGGAGGAGTGCATGGCGAGAATCAAGCACGCACACGAGAACGACATCACCCACTTCTACATGCTCACT
ATAGACAAGGACCGTATAATAGACGCTGGCCCCAAAGGAAACTACTCTCGATTTATGAATCACAGCTGCCAGCCC
AACTGTGAGACCCTCAAGTGGACAGTGAATGGGGACACTCGTGTGGGCCTGTTTGCCGTCTGTGACATTCTCTGCA
GGGACGGAGCTGACTTTTAACTACAACCTCGATTGTCTGGGCAATGAAAAACGGTCTGCCGGTGTGGAGCCTCC
AATTGCAGTGGATTCTCTCGGGGATAGACCAAAGACCTCGACGACCCTTTTCATCAGAGGAAAAGGGCAAAAAGACC
AAGAAGAAAACGAGGCGGCGCAGAGCAAAAGGGGAAGGGAAGAGGCAGTCAGAGGACGAGTGTTCGCTGCGGT
GATGGCGGGCAGCTGGTGCTGTGTGACCGCAAGTTCTGCACCAAGGCCTACCACCTGTCTGCGTGGGCCTTGGC
AAGCGGCCCTTCGGGAAGTGGGAATGTCCTTGGCATCATTGTGACGTGTGTGGCAAACTTCGACTTCATTTTGC
CACCTCTGCCCCAATTCGTTCTGTAAGGAGCACCAGGACGGGACAGCCTTCAGCTGCACCCCGGACGGGCGGTCC
TACTGCTGTGAGCATGACTTAGGGGCGGCATCGGTGAGAAGCACCAAGACTGAGAAGCCCCCCCCAGAGCCAGGG
AAGCCGAAGGGGAAGAGGCGGCGGCGGAGGGGCTGGCGGAGAGTACAGAGGGCAAATAGCGCCAGGCGGGCCGCT
TGGCCGATCCAGGGGCGGTGCAGGGCGGCGGCCCTGCCTGCGGGAGAGGGCGAGCATGAACCTGGCCCGGAGGA
CCCAGCTCGAGCCGCCAGGACACAGACGTACAGGCCTCCTCGGGAGGGAGCGCCTCCCCACCACTGAGCCATCCT
CAGCAGCGTCCGCTGCGTCTGCACTGATGACCGTCTGAGCCAGCTCAGCGTTCCTGGACAAACAGCCTCACTCC
TCAGCGTTACCGCCACACTTGAATTTCTCCGAATGTCAAGGTTCCCTCCCACTCTATTTTTTTAGGTTAAAGTTA
ATTGGCATATGGAATGTTTAACTCTCTGAAATGTGTAGCGTAGGCTTTTCCCAAGGTCGCTAGAACTCGT
CTTCGCGTTGCCCCCTTTCTGGCTCTCAGCGCCGTCGCCACTCGGGAGAGGCTGGGTGAGGCCGCTGTGAGGACT
GACCCTGGATTCTCGAAACTGCCATTGTGATCATTACTCTGCTCTTTGGTGGCTGTATCATTTTTTTGTACTAA
TGTGAATTGTTCTCAGAAACGCTTCTTTTCCATCCTAGTGAGAAGCTGGCCCTGCAGGTGGTGGCAGCAATGGT
GTTGTAAGATTTCTCCCGTAGTTTTTTCTCCTCATGGATTTGAATGAAATGCCAATAACACGTCCACTTTCAAC
GTGTAGTTTACGCGGAGCACTTTCGAGGCCTGGCCGGGTTGGGCCTACTTCTCACCTGGGCCTATCTTCTGAACT
CGCTAGGTTCTTATCAACATTTGGGGGATAACTTTGTATATTTTTTTTCAATTTGGCTTTTCTTTACCAGTTTCTGA
TTTTTATTCTCAATATATTTTTTGCTAAACCTATTTACAAATCACCACCGACTGAAGTGTGTGTTTACTGATGCG
GCCCTGAGCTCCATGGCGAAAGGAGTGACTTTGCAGGGCGTGAGACCGCAGTCTGCTTAGAGCACAGGAAGTGAC
AACTTAGGGAGCCCCGTAGGGCGCTGCAGGCCCCGGGGACCCCCAGCACGTGGGTCTAAAGAGAGACGGAGTCTAG
CTCTCCTGCCACCCAGAGTGGCTTCCATCTCAGCACTCTGTGGGTCTGGTGATGGAAGATGCAGTCTCTGCTGAT
CACATGTGCCCTCTGCCAGGGCACCTACTGAGAGGTGCGGTCTGGGGGTGGAGGCCTGCCTGGCAGGTGTGCGT
GCCTCGTACGTGTGTTATGGGCACTGGTCTAGGCCAGGTATGACACCCACTCTCCTGTGAGATTTCACTTTAGTT
TTTAAAAGGTCCAGTTCTACAGAGTGAGACCTATCTATCTGAGTACTACATATGTTTTAAGACTTGGTTCTTTTT
TTGAGGGATCCTTGACCTGGGAAGTCTGGAGCACCTGAGAAGGGGGCACCATGTGTGCCTTTGCCACGTGTC
CTGAGGGGCTGCTTGTCTGGGAGGGAGGAGAGAACATTCAGCAGCAGGTGCTTTTTTATGGCCTTTTCTTAAAA
TAACCTAAGGGGGACACATCCATCTTGCAGAGAAGTTTACAGAACTCCCTTGAAAACCTGCTGCTGAGGCTCCTG
TTAAATTTTCTGTGGCATCTTTTATGCCTTGGTAAAAACTGCAGTGTCTTTGGACCTGAGAGTGGCTACTCCGTG
GTTTTGTGACCTGTAAGCGTGGGGTTTACGGGTGTGTGGCCCTGCAGGGTCCCACGCCTCCCTGAGCACTGACTG
GAAGTTTCACTGGCTGGTGGCTGTCCCTTCTCCCATCAGGGTCCCCAGCAAAGTTAACTACACAGAGGACCCAGG
GGAAACGAGCTGTGTAGCCACTGACTTGCTCGCGCGGCGCTGGCCTCTGAGGGGCACTCGCCGGTTAAGACAGGG
TGGGAGTAGTGCTTTCCAGTTTCACTCTAACTTCTCCCAAAGTGTCTAAGAAAATACTGGATCGGCTCATAGA
TTTATGCTCCTTATGATGCCCTAACTTGGAAAGGTTGTTCTAGGGACAGGCCGGGCAGTGTCCCCACACACACCTT
AGAGTCGAAGGCCCCAGGGCCCCGCTGTCACTTGCCCAAAAGATCCCTTCCGGCAGGTAAGGGACTACCAATGCT
TACGTCAAACAGCAGAATCGGCTTTGCAGTGCATTTGGGGAGCAGATATTAACCTATTTTTTGTGTTGGACAGT
AGTGAAATCTTGTGATTTTAAATCGCTTTGATAATACTTCCAAATTTTATGATTTTTTCTGAAGGAAATAATGCAA
ACATTTTAAATATGTTTCTCCCCCTTTCCAAAACCTGTTAACTAATGAGCAAGTAACACTAACTTTGAATGTCT

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FIGURE 617C

CTACAATACCCGTTGATAACTCAGTGGAGCCAGGCTTTGGGGTAGCGGCCCTGAGCTTGCAGGGTTTCTCGCCAC
TGGGGCTGACCACGCCCCCAGCTGTGACCGTGGGTGTGGCTGGCTCTCGGCCCTGCCCAGCTTTGTTCTGAGGAC
GTGGTGACTTCCTGAACATCAGCTTCAATCCTCCATCATTAATGTGAAGCAAAACACAAAACCGCCCAATCCC
TCAGGATTCTTGGCATCCGAAACCAGCATCTGCACCTAAACCCATACCCACCCGCTGTGCGCCACAGGGGGATG
TGTCCGAATGGGCAGCTTAAAATGTGGTCACCTGTGGGGGAAACTCTTCAGGCACCTGAAGTGAGAACCCAGCTG
TCCGTCCTCAGGCCGGCCTTTCTTCCGGCGACACCCGTCATGGCTGGCTGGGTCCCTTCGCAGTGTTTGTCTG
TCTTGACATCTAAACCCCGCGTGTGCAGTGCCCATCTTCCAGGACTACCTTATTTCCAGAATTAAACCTGTTT
TATAATTCAAGTTAATGCAAATGACTGTCAGTTGCCAAATATCTTGATCCTGTGAGTGATGTTGACTGTTG
TTAGTCAGTAGAGTAAAATGCTGTGTCCACGGGGTGTACAGCCTCACCATACCCTGTTGAGGTGTGAAATGCCC
CGTCAGAAATTAAATACAACTTAAATGTGCCTATTGGTGTCTAAACTTCATACAATGTAAGGTCAGATTCCTTT
TAGGAATACTGGGTGCTGTACCAGGTTTGATAGTTAGACTTAAAAACTTGAAATTCATTTTTGGGGGGAGGGA
TATACTGAAATAGAGAGTTGAGACTTGCCAGTTGGGGGAAAAATAGCATTTAAATGGAAAGCTGTGTTTGAAAA
TTGTGTATGAGTATTTTTGTATTAAAAACATTTTAAA

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FIGURE 618

MEFSIKQSPLSVQSVVKCIKMKQAPEILGSANGKTPSCEVNRECSVFLSKAQLSSSLQEGVMQKFNGHDALPFIP
ADKLDLTSRVFNGEPGAHDALRFESQEMKGIGTPNNTPIKNGSPEIKLKITKTYMNGKPLFESSICGDSAAD
VSQSEENGQKPENKARRNRKRSIKYDSLLEQGLVEAALVSKISSPSDKKIPAKKESCPNTGRDKDHLLKYNVGD
VWSKVSQYPWWPCMVSAADPLLHSYTKLKGQKKSARQYHVQFFGDAPERAWIFEKSLVAFEGEGQFEKLCQESAKQ
APTKAEKIKLLKPI SGKLRAQWEMGIVQAEAAASMSVEERKAKFTFLYVGDQLHLNPQVAKEAGIAAESLGEMAE
SSGVSEEAENPKSVREECIPMKRRRRRAKLCSSAETLESHPDIGKSTPQKTAEADPRRGVGSPPGRKKT TVSMR
SRKGDAASQFLVFCQKHRDEVVAEHPDASGEEIEELLRSQWSLLSEKQRARYNTKFALVAPVQAEEDSGNVNGKK
RNHTKRIQDPTEDAEADTPRKRLRTDKHSLRKRDTITDKTARTSSYKAMEAASSLKSQAATKNLSDACKPLKKR
NRSTAASSALGFSKSSSPSASLTENEVSDSPGDEPSES PYESADETQTEVSVSSKKSERGVTAKKEYVCQLCEK
PGSLLLCEGPCCGAFHLACLGLSRRPEGRFTCECAGSIHSCFVCKESKTDVKRCVVTQCGKFYHEACVKKYPLT
VFESRGFRCLHSCVCHASNPNRPSKGKMMRCVRCVPVAYHSGDACLAAGCSVIASNSICTAHFTARKGKRH
HAHVNVSWCFVCSKGGSLLCCESCPAAFHPDCLNIEMPDGSWFCNDCRAGKKLHFQDI IWVKLGNYRWWPAEVCH
PKNVPPNIQKMKHEIGEFVFFFGSKDYYWTHQARVFPYMEGDRGSRYQGVRGIGRVFKNALQEAEARFREIKLQ
REARETQESERKPPPYKHIKVNKPYGKVQIYTADISEIPKCNCKPTDENPCGFDSECLNRMLMFECHPQVCPAGE
FCQNQCFTKRQYPETKIIKTDGKGWGLVAKRDIRKGEFVNEYVGELIDEEECMARIKHAHENDITHFYMLTIDKD
RIIDAGPKGNYSRFMNHSCQPNCE TLKWTVNGDTRVGLFAVCDIPAGTELT FNYNLDCLGNEKTVCRCGASNC SG
FLGDRPKTSTTLSSEEKGKKTKKKTRRRRAKGEGRQSEDECFCRGGQLVLCDRKFCTKAYHLSCLGLGKRPF
GKWECPWHHCDVCGKPSTSFCHLCPNSFCKEHQDGTAFSCTPDGRSYCCEHDLGAASVRSTKTEKPPPEPGKPKG
KRRRRRGWRRVTEGK

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FIGURE 619

AGGCTGTCTGCAGAGATTTGAAAA**ATGG**CAACAAATGAAAGTGTGAGCATCTTTAGTTCAGCATCCTTGGCTGTG
GAATATGTAGATTCACTTTTACCTGAGAATCCTCTGCAAGAACCATTAAAAATGCTTGGAACATATGTTGAAT
AATTATACAAAGTTCCAGATTGCAACATGGGGATCCCTTATAGTTCATGAAGCCCTTTATTTCTTATTCTGTTTA
CCTGGATTTTTATTTCATTTATACCTTATATGAAAAAATACAAAATTCAAAGGATAAGCCAGAGACATGGGAA
AACCAATGGAAGTGTTCAAAGTTCTTCTCTTTAATCACTTCTGTATCCAGCTGCCTTTGATTTGTGGAACCTAT
TATTTTACAGAGTATTTCAATATTCCTTATGATTGGGAAAGAATGCCAAGATGGTATTTTCTTTTGGCAAGATGC
TTTGGTTGTGCAGTCATTGAAGATACTTGGCACTATTTTCTGCATAGACTCTTACACCACAAAAGAATATACAAG
TATATTCATAAAGTTCATCATGAGTTTCAGGCTCCATTTGGAATGGAAGCTGAATATGCACATCCTTTGGAGACT
CTAATTCCTGGAACGGATTTTTCATTGGAATCGTGCTTTTGTGTGATCATGTAATTCCTTTTGGGCATGGGTG
ACCATTCGTTTATTAGAAACTATTGATGTCCATAGTGGTTATGATATTCCTCTCAACCTTTAAATCTGATCCCT
TTCTATGCTGGTTCTCGGCATCATGATTTCCACCACATGAACTTCATTGGAACTATGCTTCAACATTTACATGG
TGGGATCGAATTTTTGGAACAGACTCTCAGTATAATGCCTATAATGAAAAGAGGAAGAAGTTTGAGAAAAAGACT
GAAT**AAAA**TATCTCACGTAAACCTTCCTGAAAGATAAACGTTTTCCTGAATTCAGAACTAGTAGCTAACATTGCT
TCTGGAGAGCAGAAATAAGCATGTCTTCTGGCTACTAAGTGATAAAAAAGAACATTAACAACCTTTAATTACCTTC
CTAGTGGGAACCTTTTTCTACTTTACCTACAAGTTCTATATATGTAGAAATGAATAAATATATATTTAAGTACAGT
TTTCATGAGGAAGTTTTAAAGACCATGTTTCTTAAGCTTCCAAGAAGGTTTTGGATACTAGAAGTATTAATCTAT
GGCTTTTCTCCCAGTAAACCATAGGCCTGAAGTTCACATTGGGTCTTTAAATCTTTTAGATATATACTGGTCAT
TTCAGAAAATCTTCATAGTGGTATTGGCCTTATATTTAACTTTTTTTTTTTTATTTTTTTTTTGAGACAAAGCCACA
CTCTGTCTCCTTGGCTGGAGTGTGGTGGCACAGTCTCAGCTCACTGCAACCTCTGCCTCCAGTTCAAGCAATTC
TTCTGCCTCAGCCTCCCAAGTAGCTGGGATTACAGGCACCCGCCACCACGCCAGCTAATTTTTGTATTTTTGTGA
GAGATGGGGTTTCACGATGTTGGCCAGGCTGGTCTCAAACCTCTGACCTCAAGTGATCTGCCCACCTTGGCCTCC
CAAAGTGCTGGGATTACAGGTGTAAGCCACTGCGCCCGGCCTTTTTAACTTTAAACATGTTTTAGAATTCACCTA
AAGATCAAAATATCATGGATTGAACCTCATCAATTGATAGCAGTGAGTGACTGAAGCTTCAAATCAAGAAAAGC
CGGCACCAAGAACTTCCATTCTAATCTAGAGCTGACCAGTTTGAAGCTGATTCTCTCTTTGAAGAGTCCTTCTTGA
TTGCAGTGCAGTACTGGCATTCTGAATGGATGTAAGTGGAGTATTTTAGTCTAAAGGCTTTTCAAATTACTTGA
ATTTTTTTAAAAATTGAGGAGCTTTATTTCTATTTACCTTCCATTTTTGTGTGAAAAAAAAAAAAAAAAA

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FIGURE 620

MATNESVSIFSSASLAVEYVDSLLENPLQEPFKNAWNYMLNNYTKFQIATWGSLIVHEALYFLFCLPGFLFQFI
PYMKKYKIQKDKPETWENQWKCFKVLLFNHFCIQLPLICGTYYFTEYFNIPYDWERMPRWYFLLARCFGCAVIED
TWHYFLHRLHKKRIYKYIHKVHHEFQAPFGMEAHEYAHPLETLILGTGFFIGIVLLCDHVILLWAWVTIRLLETI
DVHSGYDIPLNPLNLIPFYAGSRHHDFFHMFIGNYASTFTWWDRIFGTDSQYNAYNEKRKKFEKTE

FIGURE 621A

GCGGGGACCGGACGAGCCCGGGTCGCCGTTGGCAGCAGCAGCAGCAACACCAGCAGCAGCAGCAGCCCGGGCGG
CGGCGCGGAACCCCGAGCGCCCGGGCGACCCCGGCTTCCCGAGCGCGACCGGCGGCAGCAGCCCGGTGCGG
CCGCGCGCGCCTTAGGCTCGGCCCGCGGGCTCGGGGACCCCGACTCCCGGCCAGCGAGCGCGTCCCCGGCGCC
GCCCCAGAGCCCGAGGAGGCGCGGCCGAGAGCCCGGGGAGGGGGCGGCCACCGCCCGCGCCGGGCATCCTC
AGGAGCCCCAGAGCGCGGAGGGCGCGGCCGCGCGAGCGGTGCTGGCCCCCGCGGGCTCCCGGACCTTCCCCAC
CGCCTGGGCCCCGAGGGACGCGTGATCGGGCGGGCGGCCGGGCGCAAGGGTGGGAGGGAGCCGCCCGCCCGCGC
CCCCTCCGCCCTCGCCCCAAACCCCTGGGCGCCGGGCCCGGGCCGCGCGGCTGAAGCGCCCGGATGCGGAGC
CCGCCGCGGCACGGGCCGCCGGGCGGCGAGCGGAGACGGCCCCAACCTCAACAACAACAACAACAACAAC
AACCACAGCGTGCGCAAGTGCGGTACCTGCGCAACGAAGAGCATGGCCACAAGCGCTTCTTCGTGCTGCGCGGA
CCCGGCGCGGGCGGCGACGAGGCGACGGCGGGCGGGGGTGGCGCGCCGAACCGCCGCGGCTCGAGTACTACGAG
AGCGAGAAAAAGTGGCGGAGCAAGGCAGGCGCGCCGAAACGGGTGATCGCTCTCGACTGCTGCCTGAACATCAAC
AAGCGCGCCGACGCCAAGCACAAGTACCTGATCGCCCTCTACACCAAGGACGAGTACTTCGCCGTGGCCGCCGAG
AACGAGCAGGAGCAGGAGGGCTGGTACCGCGCGCTCACCGACCTGGTCAGCGAGGGCCGCGCGGCCGCCGAGAC
GCGCCCCCGCCGCCGCGCCCGCGCGTCTGCAGCGCCTCCCTGCCCGGCGCCCTGGGCGGCTCTGCCGGCGCC
GCCGGGGCCGAGGACAGCTACGGGCTGGTGGCTCCCGCCACGGCCGCTACCGTGAGGTGTGGCAGGTGAACCTG
AAGCCCCAAGGGTCTGGGCCAGAGCAAGAACCTGACGGGGGTGTACCGTCTGTGCCTGTCTGCGCGCACCATCGGC
TTCGTGAAGCTCAACTGCGAGCAGCCGTGGTGACGTGACGTATGAACATCCGCCGTGCGGCCACTCGGAC
AGCTTCTTCTTCATCGAGGTGGGCCGTGCGCCGTACAGGCCCCGCGAGCTGTGGATGCAGGCGGACGACTCG
GTGGTGGCGCAGAACATCCACGAGACCATCTGGAGGCCATGAAGGCGCTCAAGGAGCTTTCGAGTTCCGGCCG
CGCAGTAAGAGCCAATCGTCGGGGTCTGTCGGCCACGACCCCATCAGCGTCCCGGCGCGCGCCGCCACCACCAC
CTGGTCAACCTGCCCCCAGCCAGACGGGCTGGTGCGCCGCTCGCGCACCGACAGCCTGGCCGCCACCCCGCCG
GCGGCCAAGTGACGCTCGTGCCGGGTGCGCACCGCCAGCGAGGGCGACGGCGGCCGGGCTGCGGGAGCGGCGGCC
GCGGCGCAGAGGCTGGTGTGCGTGGTGGGAGCCCCCTGAGCCCCGGGCCGGTGCAGCGCGCCCTGAGCCGCTCG
CACACCCTGAGCGGCGGCTGCGGCGGCCGCGGGAGCAAGGTGGCGCTGCTGCCGGCAGGGGGCGCGCTGCAACAC
AGCCGCTCCATGTCCATGCCGCTGGCGCACTCGCGCCCCGCCGCCACCAGCCCCGGCTCCCTGTCTGCTCCAGCAGC
GGCCACGGCTCGGGCTCCTACCGCCGCCGCCCGGCCCGCACCCGCTCTGCCGATCCGCTGCACCACGGCCCC
GGCCAGCGGCCCTCCAGCGGCAGCGCCTCCGCTCGGGCTCCCCCAGCGACCCCGGCTTCATGTCCCTGGACGAG
TACGGCTCCAGCCCAGGCGACCTGCGCGCCTTCTGCAGCCACCGAAGCAACACGCCCCAGTCCATCGCGGAGACG
CCCCCGGCCCGAGACGGCGGCGGCGCGGTGAGTTCTACGGGTACATGACCATGGACAGGCCCTGAGCCACTGT
GGCCGCTCCTACCGCCGGGTCTCGGGGGACGCGGCCAGGACCTGGACCGAGGGCTGCGCAAGAGGACCTACTCC
CTGACCACGCCAGCCCGGAGCGGCGCGGTGCCCGAGCCCTCCTCTGCCTCGCTGGATGAATACACCCTGATGCGG
GCCACCTTCTCGGGCAGCGCGGGCCGCTCTGCCGCTCCTGCCCGCGTCTCTCCCAAGGTGGCCTACCACCCC
TACCCAGAGGACTACGGAGACATCGAGATCGGCTCCACAGGAGCTCCAGCAGCAACCTGGGGGCGAGACGAGGC
TACATGCCCCATGACGCCCCGCGCGGCCCTTCGCGGGCAGTGGGAGCGGCAGCTGCAGGAGCGACGACTACATGCC
ATGAGCCCCGCCAGCGTGTCCGCCCCAAGCAGATCTTGACGCCAGGGCCGCCGCCGCCGCCGCCGCCGCTG
CCTTCTGCGGGGCTGCGGGGCCAGCACCCACCTCTGCGGCGGGCAGGACATTCCCGGCGAGCGGGGGCGGCTAC
AAGGCCAGCTCGCCCGCCGAGAGCTCCCCGAGGACAGTGGGTACATGCGCATGTGGTGGGTTCCAAGCTGTCC
ATGGAGCATGCAGATGGCAAGCTGCTGCCCAACGGGGACTACCTCAACGTGTCCCCAGCGACGCGGTACCCAGC
GGCACCCCGCCCGACTTCTTCTCCGAGCCCTGCACCCCGCGGGGAGCCGCTCAGGGGCTTCCGGGCTGCTGC
TACAGCTCCTTGCCCCGCTCCTACAAGGCCCCCTACACCTGTGGCGGGGACAGCGACCAAGTACGTGCTCATGAGC
TCCCCCGTGGGGCGCATCCTGGAGGAGGAGCGTCTGGAGCCTCAGGCCACGCCAGGGGCCAGCCAGGCGGCCAGC
GCCTTGGGGGCCGGCCCCACGACGCCCCCTACCCCTGTAGTGCTTCCGCCGTAGCGGCCGCCGGTCA
GGTTTCTTGGGCCAGCGCGGCCGGGCGGTGAGGCCACGCGCCTGTCCCTGGAGGGGTGCCAGCCTGCCAGC
ATGCACGAGTACCCACTGCCACCGGAGCCCAAGAGCCCCGGCGAGTACATCAACATCGACTTTGGCGAGCCCGGG
GCCCGCCTGTGCGCCCGCCGCGCTCCCTGCTGGCGTGGCGGCCCTCGTCCCTCCTCGCTCTTGTCCGCCAGCAGC
CCGGCCTCGTCTGGGCTCAGGCACCCCGGGCACAGCAGCGACAGCCGGCAGCGGTCTCCGCTCTCCGACTAC
ATGAACCTCGACTTCAGTCTCCCCAAGTCTCCTAAGCCGGGCGCCCCGAGCGGCCACCCCGTGGGCTCCTTGGAC
GGCCTCCTGTCCCCCGAGGCCTCCTCCCGTATCCGCCGTTGCCCCCGCGTCCGTCCGCGTCCCGCTCGTCTGCT

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FIGURE 621B

CTGCAGCCGCCGCCACCGCCGCCGGCCCCGGGGGAGCTGTACCGCCTGCCCCCGCCTCGGCCGTTGCCACCGCC
CAGGGCCCCGGGCGCCGCCCTCATCGTTGTCTCGGACACCGGGGACAATGGTGACTACACCGAGATGGCTTTTGGT
GTGGCCGCCACCCCGCCGCAACCTATCGCGGCCCCCCGAAGCCAGAAGCTGCCCCGCTGGCCAGCCCCGACGTCG
GGCGTGAAGAGGCTGAGCCTCATGGAGCAGGTGTGCGGAGTCGAGGCCTTCTGACAGGCCAGCCAGCCCCGGAC
CCCCACCGCGGCGCCAAGGTCATCCGCGCAGACCCGACGGGGGGCCGCCGCCACAGTTCCGAGACCTTCTCC
TCCACCACGACGGTCACCCCGTGTCCCGTCTTCGCCCACAACCCCAAGCGCCACAACCTCGGCCTCCGTGGAA
AATGTCTCTCTCAGGAAAAGCAGCGAGGGCGGCGTGGGTGTGCGCCCTGGAGGGGGCGACGAGCCGCCACCTCC
CCACGACAGTTGCAGCCGGCGCCCCCTTTGGCACCGCAGGGCCGGCCGTGGACCCGGGTGAGCCCGGGGCTTG
GTCGGTTGTCTGGGAGCGGTGGATCGCCCATGCGCAGAGAGACCTCTGCCGGCTTCCAGAATGGTCTCAACTAC
ATCGCCATCGACGTGAGGGAGGAGCCCGGGCTGCCACCCAGCCGACGCCGCCGCCGCCGCTTCTCAGCCG
GGAGACAAGAGCTCCTGGGGCCGGACCCGAAGCCTCGGGGGTCTCATCAGCGCTGTGGGCGTCGGCAGCACCGGC
GGCGGGTGCGGGGGGCCGGGTCCCGGTGCCCTGCCCCCTGCCAACACCTACGCCAGCATTGACTTCTTGTCCAC
CACTTGAAGGAGGCCACCATCGTGAAAGAGTGAAGATCTGTCTGGCTTTATCACCAGGATGTCACATGTCAGAGA
ATATCATTAAAAAGACGCTCAGCGCTGTTTCAGCCCGAAGCTGCTTGCAGTTTTCTTTTGGATCTGAGCAATG
ACTGTGTTTGGAAACATCTGTGGACTCTGATAGATGGGGCACAACAAGGCAAGGTCACCTGCCTCTTCCCTTGT
TCCCGGATGGGCATTTCATCATTGTGCTGTTTGCCTTTTGTCTTTTGTCTTTTGTCTTTTAAACAAATTAGCTGAAGAAGTT
ATTCTCAAGAAAATTGGATGTTTTATTGGCCTTCTTAAATTGTGGCCAGTGTCTTTTAAATTTCTTCTTTTCT
CTTTTGGCAAAGCAGATATAACCTCAGCATGCTAGGAGAGTGCACCCGTACCTATGGAAGTGGTAAAATCTGGT
ATTTACTGGCTTACACTCAAAACGACCACAGTCTACCTCAGTTCAAGGTAAAGCCGGATTTCCGTGGCGGGGT
CCACAGGACCTCCTGTAGTAGCCCTGCGCTGTGTGTCTGGAGCGCTCCTCGCCTTATTTAAATGGTCCAGTAG
ACAGCTGCTTGTGGATTCCAGTGCAGGTACCTGCGATGTTTACGTCCACACCGAGCCAGTGTGGGACTGACAT
TTCTCAATGGAAGTGAAATTTGGGATTGGACTTTGAAGACGATTACTAAATAATAATTATTATATGTAAGTGAAG
CAACCTACTTTTGAATCAACTGTATTGGGTAGTGGGAGGTGGGAGGGAAGGGCTTTGGGAAGGGGATGAATAT
CTCTTTTACCTTTAACAGACTTGTTTAATCTTCTCGATGTAGATGTTTATGTAGGTACTTCACATTGCAAACGC
CTTTTATTCTATTTACAAGCTCAGATGTCTCTGCTCTCCTGAATCTTGGGCATGCCTTTCTGTAACCAAAATCC
CTGTAGGCGTGCTAGCAATTCCAGGGTGGTCCGGGTTTGGCAGATTTGATTTTTAAAAAATGTATTATCTTTAAT
AAAAATGTTATTATGTCAACCAGTGAGGCTGCCCTGAACAAAAAAGAAAAAAGAAAAAAGGAAAGA
AAGAACTGATAAAAAAGAGGCATCCAGCCCTATGTTATTGATGGAAGAAAGAAAGAAAGCAATCTCGCA
GTACATGTTACTTGTGCAAAAAATTCGGGACAAGACTACCCTTGTCTTATGTTTTAGTATTCTGAAAATACCAG
TGTGTGGCAGTTCTCGCAGATGTTACCTAAAAGTCTGAACTTGACCGGCAGAAATGTTCTGCCGTTTTCTGCTCC
CTCGACACTTGATTGGAGGGCTGTGACCTCTCCTCCCGTGGGGGCTTCCCCAGTGCCTATCTTCTCTGATAGTC
ATGGAGAGGTTACACTAATTTCATTGGAGATGTAAGTTGTTGGTTTTGTTTTGTTTTGTTTTAGAAAAATATATA
TAAATATATAATAGATATCTATCGCTATAGAATAATGCATTAATAAAATGAGGCTTTTTTAGAGGAAGACCAAAA
AATTCAATGTCTTAAAAATATATTTAATGGCAATGCAAAAGTCTTCTGCTTCCGTGCTGAACITTAGAACAGAG
GATTGTATTGCAAGACAAAGTTGAATGTAAAGTGATCTCCCTGAACATTTTAAAGTTTTACTTTTTCTGAAATTA
TACATCACAGCAGTGATAGGCCATATAATGTTAGCTGGAAGGTCAATTCAGTGTATGATATACTTTATTAAGA
TGTATAAAACATCCTGAAGTTTTATTAGTTTTGGGAATAGGCATCAGTGGGTGGTATTTGCTTTGTAACCTCCC
CCCAGGTACGATAGGGACTGAATATGGACCCTGCTGAAAGCAGTGTATTGACGCATATTTAACTCGCCCTCTATC
CGTAGAGTAGTCATGACACTATACAGATGGTTCGTGTTTACTGACGCTTAAACAAGCAAAATACACAGATGA
TAATATGCTAAATTTCTCTATCCTGTACATTTACAAAAAGGCATATGCAATATTTACATTTTAAATTTAGTT
TACAGAATGGAACCAAAATGTATAAATGTTATGTTTGCTAAAACCTTACAAATGTATATTGGGTCTTTGTACATTT
TGCCTGACTTACCTTAAATTTAAAAATATTTTTTGCTATATAAACTTTAACAGTTATTAAACAGTGTTCCTTTT
GGGTACGTATTGTTTCTGGATATCAAGATGTTAAATATATTTCTTGCTATTGTGATATGACAAGAGACTTAACTT
ATCTTGCTCTGTCTTCCACTGTACACGCTGTATATAGGGGTCAATGTGATGCTGCTGGAGACGAGAATAAACTGG
ACTAGAATAGTGCAATTGTATTTAGTCTGTATTGATCATGGATGCCCTCCTTAATAGCCATATGCAATAAAATAAA
GTACATTATTTATGAAATGAA

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FIGURE 622

MASPPRHGPPGPASGDGPNLNNNNNNNNNNHNSVRKCGYLRNEEHGHRFFVLRGPGAGGDEATAGGGSAPQPPRLE
 YYESEKKWRSKAGAPKRVIALDCCLNINKRADAKHKYLIALYTKDEYFAVAAENEQEQEGWYRALTDLVSEGRAA
 AGDAPPAAPAAASCSASLPGALGGSAGAAGAEDSYGLVAPATAAYREVWQVNLKPKGLGQSKNLTGVYRLCLSAR
 TIGFVKLNCEQPSVTLQLMNIRRCGHSDSFFFIIEVGRSAVTGPGELWMQADDSVVAQNIHETILEAMKALKELFE
 FRPRSKSQSSGSSATHPISVPGARRHHHLVNLPPSQTGLVRRSRTDSLAAATPPAAKCSSCRVRTASEGDGGRAAG
 AAAAAQRLVSVAGSPLSPGPVRAPLSRSHTLSGGCGGRGSKVALLPAGGALQHSRSMMPVAHSPPAATSPGSL
 SSSGHGSGSYPPPPGPHPLPHPLHHGPGQRPSSGSASASGSPSDPGFMSLDEYGSSPGDLRAFCSHRSNTPEI
 AETPPARDGGGGGEFYGYMTMDRPLSHCGRSYRRVSGDAAQDLDRGLRKRTYSLTTPARQRPVPQPSSASLDEYT
 LMRATFSGSAGRLCPSCPASSPKVAYHPYPEDYGDIEIGSHRSSSSNLGADDGYMPMTPGAAGAGSGSGSCRSD
 YMPMSPASVSAPKQILQPRAAAAAAAVPSAGPAGPAPTSAGRTFPASGGGYKASSPAESSPEDSGYMRMWCGS
 KLSMEHADGKLLPNGDYLNVSPSDAVTTGTTPDFFSAALHPPGGEPLRGVPGCCYSSLPRSYKAPYTCGSDSDQYV
 LMSPPVGRILEEERLEPQATPGPSQAASAFGAGPTQPPHPVVPSPVRRSGRRSGFLGQRGRAVRPTRLGLEGLPS
 LPSMHEYPLPPEPKSPGEYINIDFGEPPARLSPPAPPLLASAASSSSLLSASSPASSLGSGTPTGSSDSRQRSPL
 SDYMNLDFFSSPKSPKPGAPSGHPVGSGLDGLLSPEASSPYPLPPRPSASPSSSLQPPPPPPAPGELYRLPPASAV
 ATAQGPGAASSLSSDTGDNGDYTEMAFGVAATPPQPIAAPPKPEAARVASPTSGVKRLSLMEQVSGVEAFLQASQ
 PPDPHRGAKVIRADPQGGRRRHSSETFSSTTTTVPVSPSFAHNPKRHNSASVENVSLRKSSEGGVGVPGGGDEP
 PTSRQLQFAPPLAPQGRPWTPGQPGGLVGCPGSGGSPMRRETSAGFQNGLNIAIDVREEPGLPPQPQPPPPPL
 PQPGDKSSWGRTRSLGGLISAVGVGSTGGGCGGPGPGALPPANTYASIDFLSHHLKEATIVKE

FIGURE 623

GTCAACCAGTGAGGCTGCCCTGAACAAAAAAAAACAAAAGAAAAAAAAAAAAAGGAAAGAAAGAAACTGATAA
AAAGAGGCATTCCAGCCCCTATGTTATTGATGGAAAAAGAAAAAGAAAGCAATCTCGCAGTACATGTTACT
TGTGAAAAAATTCCGGACAAGACTACCCCTGTTTTATGTTTTCAGTATTCTGAAAATACCAGTGTGTGGCAGTTC
TCGCAGATGTTACCTAAAAGTCTGAACCTGACCGGCAGAAATGTTCTGCCGTTTTCTGCTCCCTCGACACTTGAT
TGGAGGGCTGTTCGACCTCTCCTCCCGTGGGGGCTTCCCCAGTGCCTATCTTCTCTGATAGTCATGGAGAGGTTAC
ACTAATTCATTGGAGATGTAAGTTGTTGGTTTTGTTTTGTTTTGTTTTTAGAAAAATATATATAAATATATAATA
GATATCTATCGCTATAGAATAATGCATTAATAAAATGAGGCTTTTTTAGAGGAAGACCAAAAAATTCAATGTCTT
AAAAATATATTTAATGGCAATGCAAAAGTCTTCCTGCTTCCGTGCTGAACCTTTAGAACAGAGGATTGTATTGCAA
GACAAAGTTGAATGTAAAGTGATCTCCCTGAACATTTTTAAGGTTTTACTTTTTCTGAAATTATACATCACAGCAG
TGCATAGGCCATATAATGTTAGCTGGAAGGTCAATTCAGTGTATGATATACTTTATTAAGATGTATAAAACATC
CTGAAGTTTTTATTTAGTTTTGGGAATAGGCATCAATGGGTGGTATTTGCTTTGTAACCCCCCAGGTACGATA
GGGACTGAATATGGACCTGCTGAAAAGCAGTGTATTGACGCATATTTAACTCGCCCTCTATCCGTAGAGTAGTC
ATGACACTATACAGATGGTTCGTGTTTCATACTGCAGCTTAAACAAGCAAAATACACAGATGATAATATGCTAAA
TTTTCTCTATCCTGTACATTTACAAAAAGGCATATGCAATATTTACATTTTTAATTTAGTTTACAGAATGGAA
CCAAATGTATAAATGTTATGTTTGCTAAAACCTTACAATGTATATTGGGTCTTTGTACATTTTGCCCTGACTTA
CCTTAAATTTAAATATTTTTTGCTATATAAACTTTAACAGTTATTAAACAGTGTTTTCTTTTTGGGTACGTATT
GTTTCTGGATATCAAGATGTTAAATATATTTCTTGCTATTGTGATATGACAAGAGACTTAACTTATCTTGCTCTG
TCTTCCACTGTACACGCTGTATATAGGGGTCAATGTGATGCTGCTGGAGACGAGAATAAACTGGACTAGAATAGT
GCATTGTATTTAGTCTGTATTGATCATGGATGCCCTCCTTAATAGCCATATGCAATAAAATAAAGTACATTATTT
ATGAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 624A

GGGTGATTTCAGCGCCCGGCGAGGCGGAACGGGCCGCAAGAGGAGGAGGGGAGAGCCCGTCCGCGCCTGGGCTCCC
GGGGTGGCACGAGCCCCGCGGCCGAGTGCGAGGCGGAGGCGAGGAGGCCGCGGGGACGGGAGGCGAGGCCGCGCCG
GGCCCCGAAGCC**ATG**GAGAACGCGCACACCAAGACGGTGGAGGAGGTGCTGGGCCACTTCGGCGTCAACGAGAG
TACGGGGCTGAGCCTGGAACAGGTCAAGAAGCTTAAGGAGAGATGGGGCTCCAACGAGTTACCGGCTGAAGAAGG
AAAAACCTTGCTGGAACCTTGATTGAGCAGTTTGAAGACTTGCTAGTTAGGATTTTATTACTGGCAGCATGTAT
ATCTTTTGTGGCTTGGTTTGAAGAAGGTGAAGAAACAATTACAGCCTTTGTAGAACCCTTTTGTAAATTTTACT
CATATTAGTAGCCAATGCAATTGTGGGTGTATGGCAGGAAAGAAATGCTGAAAATGCCATCGAAGCCCTTAAGGA
ATATGAGCCTGAAATGGGCAAAGTGTATCGACAGGACAGAAAGAGTGTGCAGCGGATTAAAGCTAAAGACATAGT
TCCTGGTGATATTGTAGAAATTGCTGTTGGTGACAAAGTTCTGCTGATATAAGGTTAACTTCCATCAAATCTAC
CACACTAAGAGTTGACCAGTCAATTCTCACAGGTGAATCTGTCTCTGTCATCAAGCACACTGATCCCGTCCCTGA
CCCACGAGCTGTCAACCAAGATAAAAAGAACATGCTGTTTTCTGGTACAAACATTGCTGCTGGGAAAGCTATGGG
AGTGGTGGTAGCAACTGGAGTTAACACCGAAATTGGCAAGATCCGGGATGAAATGGTGGCAACAGAACAGGAGAG
AACACCCCTTCAGCAAAAACTAGATGAATTTGGGGAACAGCTTTCCAAAGTCATCTCCCTTATTTGCATTGCAGT
CTGGATCATAAATATTGGGCACCTTCAATGACCCGGTTCATGGAGGGTCTGGATCAGAGGTGCTATTTACTACTT
TAAAATTGCAGTGGCCCTGGCTGTAGCAGCCATTCTGAAGGTCTGCCTGCAGTCATCACCACCTGCCTGGCTCT
TGGAACCTCGCAGAATGGCAAAGAAAAATGCCATTGTTTGAAGCCTCCCGTCTGTGGAAACCCTTGGTTGTACTTC
TGTTATCTGCTCAGACAAGACTGGTACACTTACAACAAACCAGATGTCAGTCTGCAGGATGTTTATTCTGGACAG
AGTGGAAAGGTGATACTTGTTCCTTAATGAGTTTACCATAACTGGATCAACTTATGCACCTATTGGAGAAGTGCA
TAAAGATGATAAACCAAGTGAATTGTACCAGTATGATGGTCTGGTAGAATTAGCAACAATTTGTGCTCTTTGTAA
TGACTCTGCTTTGGATTACAATGAGGCAAAGGTGTGTATGAAAAAGTTGGAGAAGCTACAGAGACTGCTCTCAC
TTGCCTAGTAGAGAAGATGAATGTATTTGATACCGAATTGAAGGGTCTTTCTAAAATAGAACGTGCAAATGCCTG
CAACTCAGTCATTAAACAGCTGATGAAAAAGGAATTCCTCTAGAGTTTTCACGTGACAGAAAGTCAATGTCGGT
TTACTGTACACCAAATAAACCAAGCAGGACATCAATGAGCAAGATGTTTGTGAAGGGTGTCTCTGAAGGTGTCTAT
TGACAGGTGCACCCACATTCGAGTTGGAAGTACTAAGGTTTCTATGACCTCTGGAGTCAAACAGAAGATCATGTC
TGTCATTTCGAGAGTGGGGTAGTGGCAGCGACACACTGCGATGCCTGGCCCTGGCCACTCATGACAACCCACTGAG
AAGAGAAGAAATGCACCTTGAGGACTCTGCCAATTTATTAAATATGAGACCAATCTGACCTTCGTTGGCTGCGT
GGGCATGCTGGATCCTCCGAGAATCGAGGTGGCCTCTCCGTGAAGCTGTGCCGGAAGCAGGCATCCGGGTCTAT
CATGATCACTGGGGACAACAAGGGCACTGCTGTGGCCATCTGTGCGCCGATCGGCATCTTCGGGCAGGATGAGGA
CGTGACGTCAAAAGCTTTTACAGGCCGGGAGTTTGATGAACTCAACCCCTCCGCCAGCGAGACGCCTGCCTGAA
CGCCCGCTGTTTTGCTCGAGTTGAACCCTCCCAAGTCTAAAATCGTAGAATTTCTTCAGTCTTTTGATGAGAT
TACAGCTATGACTGGCGATGGCGTGAACGATGCTCCTGCTCTGAAGAAAGCCGAGATTGGCATTGCTATGGGCTC
TGGCACTGCGGTGGCTAAAACCGCTCTGAGATGGTCTGGCGGATGACAACCTTCTCCACCATTTGTGGCTGCCGT
TGAGGAGGGGCGGGCAATCTACAACAACATGAAACAGTTTCATCCGCTACCTCATCTCGTCCAACGTCCGGGAAGT
TGTCTGATTTTCTGACAGCAGCCCTTGGATTTCCCGAGGCTTTGATTCTTTCAGCTGCTCTGGGTCAATCT
GGTGACAGATGGCCTGCCTGCCACTGCACTGGGGTTCAACCCCTCTGATCTGGACATCATGAATAAACCTCCCCG
GAACCCAAAGGAACCATTTGATCAGCGGGTGGCTCTTTTCCGTTACTTGGCTATTGGCTGTTACGTCCGCGCTGC
TACCGTGGGTGCTGCTGCATGGTGGTTTATTGCTGCTGACGGTGGTCCAAGAGTGTCTTCTACCAGCTGAGTCA
TTTCTTACAGTGTAAGAGGACAACCCGGACTTTGAAGGCGTGGATTGTGCAATCTTTGAATCCCCATACCCGAT
GACAATGGCGCTCTCTGTTCTAGTAACATATAGAAATGTGTAAACGCCCTCAACAGCTTGTCCGAAAACAGTCTCT
GCTGAGGATGCCCCCTGGGAGAACATCTGGCTCGTGGGCTCCATCTGCCTGTCCATGTCACTCCACTTCTCTGAT
CCTCTATGTGCAACCCCTGGCACTCATCTTCCAGATCACACCGCTGAACGTGACCCAGTGGCTGATGGTGTGAA
AATCTCCTTGCCCGTGATTCTCATGGATGAGACGCTCAAGTTTGTGGCCCGCAACTACCTGGAACCTGGTAAAGA
GTGTGTGCAGCCTGCCACCAATCTGCTCGTTCTCGGCATGCACCGATGGGATTCTTGGCCGTTTGTGCTGCT
CATAATGCCCCCTGGTGATCTGGGTCTATAGCACAGACACTAACTTTAGCGATATGTTCTGGTCT**TG**ACTGACAGT
TTTCCATAAAGAAGATGTTTAACTTAATCAATTAATTTTTTTTATTGTTTAAAGCAACTGTCTATTTCTGCTGAAT
TTTACATGAACATACTGGCTGGTGTATGGAGTTTCTACTCTAGATTTTGTGTTTTCTGACTCCAGTGG
GGCAAGATTTTCTTTTTTATACATAAATAAAGTGTCCATTGACATGTACAGAGAACTAACACTATTTTATGC
AAATATTTTTTTGTAGATGAAAAAGCATGTACAGTGTCTGTTTAAATACTCATCCTTGTATAAAAAAATAGTTG

FIGURE 624B

AGCCAGCAGACATTGTCAGCAAATTAATTGGCAGCAGATTTTAGGAAATGAATGTGTGTGGTTTTTTTTCTAAAA
CTAAATAGCATGTATTGTGTCTTTTGCATGATGATCCGGATTTAATTTGATATCACAGTCTAATTTTTATTCTATA
AGCCAATTTTTCTGCACGAGCAGAGTCTTGCTACCTCAGTCAGTATTGTTTTGGTTTGCTACTTCCCTCACCCA
CTTTGGCCTCCGTTACCCACCCACCCACCTCTCCACCTTACCCCGCCCCGCTTGGCTTCTTCTTTAGG
ATTGTGATGGTTCGTTCTGTTTACATCAGTTTTAACGAGAGGTATGCCTGTACTCGCTTGTGCAGAAAACATTGT
TCCAGATTCAATCGACTGGGTTTATGTCCCTTCACATAGTTTTTAAGGTTATTTATTTAAATGTCTAAATGTATTT
TATTGTAACAGACATTGTTTTGCCAACATTGCCTATTTAGTGGCACGTCATCTAGTTTTAAAAAATAAAACAT
TTTAAAAAG

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FIGURE 625

MENAHTKTVEEVLGHFGVNESTGLSLEQVKKLKERWGSNELPAEEGKTLLLELVIEQFEDLLVRILLAAACISFVL
 AWFEEGEETITAFVEPFVILLILVANAIVGVWQERNAENAIEALKEYEPENGKVYRQDRKSVQRIKAKDIVPGDI
 VEIAVGDKVPADIRLTSIKSTTLRVDQSILTGESVSVIKHTDPVDPRAVNQDKKNMLFSGTNIAAGKAMGVVVA
 TGVNTEIGKIRDEMVAEQERTPLQOKLDEFGEQLSKVISLICIAVWIINIGHFNDPVHGGSWIRGAIYYFKIAV
 ALAVAAIPEGLPAVITTCALGTRMAKKNAIVRSLPSVETLGCTSVICSDKTGTLTTNQMSVCRMFIILDRVEGD
 TCSSLNEFTITGSTYAPIGEVHKDDKPVNCHQYDGLVELATICALCNDSDALDYNEAKGVYEKVGAEATETALTCLVE
 KMNVDTELKGLSKIERANACNSVIKQLMKKEFTLEFSRDRKSMSVYCTPNKPSRTSMSKMFVKGAPEGVIDRCT
 HIRVGSTKVPMTSGVKQKIMSVIREWGSGLTLRCLALATHDNPLRREEMHLED SANFIKYETNLTFVGCVMGLD
 PPRIEVASSVKLCRQAGIRVIMITGDNKGTAVAICRRIGIFGQDEDTVSKAFTGREFDELNPSAQDACLNARCF
 ARVEPSHKSKIVEFLQSFDEITAMTGDGVNDAPALKKAEIGIAMSGTAVAKTASEMVLADDFSTIVA AVEEGR
 AIYNNMKQFIRYLISSNVGEVVCIFLTAALGFPEALIPVQLLWVNLVTDGLPATALGFNPPDLDIMNKPPRNPKE
 PLISGWLFFRYLAIGCYVGAATVGAAWWFIAADGGPRVSFYQLSHFLQCKEDNPDFEGVDCAIFESPYPMTMAL
 SVLVTIEMCNALNSLSENQSLRMPPWENIWLVGSI CLSMLHFLILYVEPLPLIFQITPLNVTQWLMVLKISLP
 VILMDETLKFVARNYLEPGKECVQPATKSCSFSACTDGISWPFVLLIMPLVIWVYSTDTNFS DMFWS

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FIGURE 626

GAGGAGGCCCCGAGAGGAGTCGGTGGCAGCGGCGGGCGGGACCGGCAGCAGCAGCAGCAGCAGCAGCAACC
ACTAGCCTCCTGCCCCGCGCGTTGCGACGAGCCCCACGAGCCGCTCAGCCCGCGTTCTCAGCGCTGCCCGACC
CCGCTGGCGCGCCTCCCGCCGAGTCCCGGCAGCGCCTCAGTTGTCTCCGACTCGCCCTCGGCCTTCGCGCAGC
GCAGCACAGCCGCACGCACCGCAGCACAGCACAGCACAGCCCAGGCATAGCTTCGGCACAGCCCCGGCTCCGGCT
CCTGCGGCAGCTCCTCTGGCACGTCCCTGCGCCGACATTCTGGAGGTTGGATGCTCTTGTCCAAAATCAACTCGC
TTGCCCACCTGCGCGCCGCGCCCTGCAACGACCTGCACGCCACCAAGCTGGCGCCCGGCAAGGAGAAGGAGCCCC
TGGAGTCGCAGTACCAGGTGGGCCCCGCTACTGGGCAGCGGCGGCTTCGGCTCGGTCTACTCAGGCATCCGCGTCT
CCGACAACCTTGCCGGTGGCCATCAAACACGTGGAGAAGGACCGGATTTCGACTGGGGAGAGCTGCCTAATGGCA
CTCGAGTGCCCATGGAAGTGGTCTGCTGAAGAAGGTGAGCTCGGGTTTCTCCGGCGTCATTAGGCTCCTGGACT
GGTTCGAGAGGCCCCGACAGTTTCGTCTGTATCCTGGAGAGGCCCCGAGCCGGTGCAAGATCTCTTCGACTTCATCA
CGGAAAGGGGAGCCCTGCAAGAGGAGCTGGCCCCGAGCTTCTTCTGGCAGGTGCTGGAGGCCGTGCGGCACTGCC
ACAACCTGCGGGGTGCTACACCGCGACATCAAGGACGAAAACATCCTTATCGACCTCAATCGCGGCGAGCTCAAGC
TCATCGACTTCGGGTTCGGGGGCGCTGCTCAAGGACACCGTCTACACGGACTTCGATGGGACCCGAGTGTATAGCC
CTCCAGAGTGGAATCCGCTACCATCGCTACCATGGCAGGTTCGGCGGCAGTCTGGTCCCTGGGGATCCTGCTGTATG
ATATGGTGTGTGGAGATATTCCTTTCGAGCATGACGAAGAGATCATCAGGGGCCAGGTTTTCTTCAGGCAGAGGG
TCTCTTCAGAATGTCAGCATCTCATTAGATGGTGTCTTGGCCCTGAGACCATCAGATAGGCCAACCTTCGAAGAAA
TCCAGAACCATCCATGGATGCAAGATGTTCTCTGCCCCAGGAAACTGCTGAGATCCACCTCCACAGCCTGTTCGC
CGGGGCCCCAGCAATAGCAGCCTTCTGCGAGGTCTCCCTCTCTTGTGATGCCCCGAGGGAGGGGAAGCTTC
TGTCTCCAGCTTCCCAGTACCAGTGACACGTCTCGCCAAGCAGGACAGTGCTTGATACAGGAACAACATTTACA
ACTCATTCCAGATCCCAGGCCCTGGAGGCTGCCTCCCAACAGTGGGGAAGAGTGACTCTCCAGGGGTCTTAGGC
CTCAACTCCTCCCATAGATACTCTCTTCTCTCATAGGTGTCCAGCATTGCTGGACTCTGAAATATCCCGGGGGT
GGGGGGTGGGGGTGGGCAGAACCCTGCCAATGGAACCTTTCTTCATCATGAGTTCTGCTGAATGCCGCGATGGG
TCAGGTAGGGGGGAAACAGGTTGGGATGGGATAGGACTAGCACATTTTAAGTCCCTGTACCTCTTCCGACTCTT
TCTGAGTGCTTCTGTGGGGACTCCGGCTGTGCTGGGAGAAATACTTGAACCTTGCTCTTTTACCTGCTGCTTCT
CCAAAAATCTGCCTGGGTTTTGTTCCTATTTTTCTCTCTGCTCCCTCAGCCCTCTTTCATATGAAAGGTG
CCATGGAAGAGGCTACAGGGCCAAACGCTGAGCCACCTGCCCTTTTTCTGCCTCCTTTAGTAAAACCTCCGAGTG
AACTGGTCTTCTTTTTTGGTTTTTACTTAACTGTTTCAAAGCCAAGACCTCACACACACAAAAAATGCACAAAC
CAAGCAATCAACAGAAAAGCTGTAAATGTGTGTACAGTTGGCATGGTAGTATACAAAAGATTGTAGTGGATCTA
ATTTTTAAGAAATTTTGCCTTTAAGTTATTTTACCTGTTTTTGTCTTGTGTTTTGAAAGATGCGCATTCTAACCT
GGAGGTCAATGTTATGTATTTATTTATTTATTTTGGTTCCCTTCCTATTCCAAGCTTCCATAGCTGCTGCCC
TAGTTTTCTTTCCTCCTTTCTCCTCTGACTTGGGGACCTTTTGGGGGAGGGCTGCGACGCTTGCTCTGTTTGTG
GGGTGACGGGACTCAGGCGGGACAGTGCTGCAGCTCCCTGGCTTCTGTGGGGCCCTCACCTACTTACCCAGGTG
GGTCCCGGCTCTGTGGGTGATGGGAGGGGCCATTGCTGACTGTGTATATAGGATAATTATGAAACACAGTTCTGG
ATGGTGTGCTTCCAGATCCTCTCTGGGGCTGTGTTTTGAGCAGCAGGTAGCCTGCTGGTTTTATCTGAGTGAAA
TACTGTACAGGGGAATAAAAGAGATCTTATTTTTTTTTTATACTTGCGTTTGAATAAAAACCTTTGGCTTT

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FIGURE 627

MLLSKINSLAHLRAAPCNDLHATKLAPGKEKEPLESQYQVGPLLGGFSGSVYSGIRVSDNLPVAIKHVEKDRIS
DWGELPNGTRVPMEVVLLKKVSSGFSGVIRLLDWFERPDSFVLILERPEPVQDLDFITERGALQEELARSFFWQ
VLEAVRHCHNCGVLHRDIKDENILIDLNRGELKLIDFGSGALLKDTVYTDGTRVYSPPEWIRYHRYHGRSAV
WSLGILLYDMVCGDIPFEHDEEIRGQVFFRQVSSECQHLIRWCLALRPSDRETFEEIQNHPWMQDVLLPQETA
EIHLSLSPGPSK

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FIGURE 628

GTTTGTGGCTGCGGCAGCAGGTAGCAAAGTGACGCCGAGGGCCTGAGTGCTCCAGTAGCCACCGCATCTGGAGA
ACCAGCGGTTACCATGGAGGGGATCAGTATATACACTTCAGATAACTACACCGAGGAAATGGGCTCAGGGGACTA
TGACTCCATGAAGGAACCCCTGTTTCCGTGAAGAAAATGCTAATTTCAATAAAATCTTCCTGCCCACCATCTACTC
CATCATCTTCTTAAGTGGCATTGTGGGCAATGGATTGGTCATCCTGGTCATGGGTTACCAGAAGAAACTGAGAAG
CATGACGGACAAGTACAGGCTGCACCTGTGAGTGGCCGACCTCCTCTTTGTCATCACGCTTCCCTTCTGGGCAGT
TGATGCCGTGGCAAACCTGGTACTTTGGGAACCTTCCTATGCAAGGCAGTCCATGTCATCTACACAGTCAACCTCTA
CAGCAGTGTCTCATCCTGGCCTTCATCAGTCTGGACCGCTACCTGGCCATCGTCCACGCCACCAACAGTCAGAG
GCCAAGGAAGCTGTTGGCTGAAAAGGTGGTCTATGTTGGCGTCTGGATCCCTGCCCTCCTGCTGACTATTCCCGA
CTTCATCTTTGCCAACGTCAGTGAGGCAGATGACAGATATATCTGTGACCGCTTCTACCCCAATGACTTGTGGGT
GGTTGTGTTCCAGTTTCAGCACATCATGGTTGGCCTTATCCTGCCTGGTATTGTTCATCCTGTCTGCTATTGCAT
TATCATCTCCAAGCTGTCACACTCCAAGGGCCACCAGAAGCGCAAGGCCCTCAAGACCACAGTCATCCTCATCCT
GGCTTTCTTCGCCTGTTGGCTGCCTTACTACATTGGGATCAGCATCGACTCCTTCATCCTCCTGGAAATCATCAA
GCAAGGGTGTGAGTTTGAGAACACTGTGCACAAGTGGATTTCCATCACCAGAGGCCCTAGCTTTCTTCCACTGTTG
TCTGAACCCCATCCTCTATGCTTTTCCTTGGAGCCAAATTTAAACCTCTGCCCAGCACGCACTCACCTCTGTGAG
CAGAGGGTCCAGCCTCAAGATCCTCTCCAAAGGAAAGCGAGGTGGACATTTCATCTGTTTCCACTGAGTCTGAGTC
TTCAAGTTTTCACTCCAGCTTAACACAGATGTAAAAGACTTTTTTTTATACGATAAATAACTTTTTTTTAAGTTAC
ACATTTTTTCAGATATAAAAGACTGACCAATATTGTACAGTTTTTTATTGCTTGTTGGATTTTTTGTCTTGTGTTTCT
TTAGTTTTTGTGAAGTTTAATTGACTTATTTATATAAATTTTTTTTGTTCATATTGATGTGTGCTAGGCAGGA
CCTGTGGCCAAGTTCTTAGTTGCTGTATGTCTCGTGGTAGGACTGTAGAAAAGGGAAGTGAACATTCCAGAGCGT
GTAGTGAATCACGTAAAGCTAGAAATGATCCCCAGCTGTTTATGCATAGATAATCTCTCCATTCCCCGTGGAACGT
TTTTCTGTTCTTAAGACGTGATTTTGCTGTAGAAGATGGCACTTATAACCAAGCCCAAAGTGGTATAGAAATG
CTGGTTTTTCAGTTTTCAGGAGTGGGTTGATTTACGCACCTACAGTGTACAGTCTTGTATTAAGTTGTTAATAAA
AGTACATGTTAAACTTACTTAGTGTTATG

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FIGURE 629

MEGISIYTSDNYTEEMGSGDYDSMKEPCFREENANFNKIFLPTIYSIIFLTGIVGNGLVILVMGYQKKLRSMTDK
YRLHLSVADLLFVITLPFWAVDAVANWYFGNFLCKAVHVIYTVNLYSSVLILAFISLDRYLAIVHATNSQRPRKL
LAEKVVYVGWIPALLLTIPDFIFANVSEADDRYICDRFYPNDLWVVVFQFQHIMVGLILPGIVILSCYCIISK
LSHSGHQKRKALKTTVILILAFFACWLPYYIGISIDSFILLEIIKQGEFENTVHKWISITEALAFFHCCLNPI
LYAFLGAKFKTSAQHALTSVSRGSSLKILSKGKRGGHSSVSTESESSSFHSS

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FIGURE 630

GAGCTAGCTTTGCAATATGGCGGCCGAGGCGGACGGACCGCTTAAACGGCTGCTCGTGCCGATTCTTTTACCTGA
 GAAATGCTACGACCAACTTTTCGTTTCAGTGGGACTTGCTTCACGTCCCCTGCCCTCAAGATTCTCCTCAGCAAAGG
 CCTGGGGCTGGGCATTGTGGCTGGCTCACTTCTAGTAAAGCTGCCCCAGGTGTTTAAAATCCGGGGAGCCAAGAG
 TGCTGAAGGGTTGAGTCTCCAGTCTGTAATGCTGGAGCTAGTGGCATTGACTGGGACCATGGTCTACAGCATCAC
 TAACAACTTCCCATTAGCTCTTGGGGTGAAGCCTTATTCTGATGCTCCAGACGATCACCATCTGCTTCCTGGT
 CATGCACTACAGAGGACAGACTGTGAAAGGTGTCGCTTTCTCGCTTGCTACGGCCTGGTCCTGCTGGTGCTTCT
 CTCACCTCTGACGCCCTTGACTGTAGTCACCTGCTCCAGGCCTCCAATGTGCCTGCTGTGGTGGTGGGAGGCT
 TCTCCAGGCAGCCACCAACTACCACAACGGGTACACAGGCCAGCTCTCAGCCATCACAGTCTTCTGCTGTTTGG
 GGGCTCCCTGGCCCCGAATCTTCACTTCCATTAGGAAACCGGAGATCCCCTGATGGCTGGGACCTTTGTGGTCTC
 CTCTCTCTGCAACGGCCTCATCGCCGCCAGCTGCTCTTCTACTGGAATGCAAAGCCTCCCCACAAGCAGAAAAA
 GGCGCAGTAGAGCCAGCTACTGGAGTCATTCCGTTTCCACTCATTACCCAACTCAGGGTTCTCCCCATCTGAG
 CCAGCCTGCTGGTGTGACTTACTCATCCTCCATTCTCTGCACTTGCACTTTCTGAGCCAGGGTTTTCTTTTA
 GTGGAAACAAATGGTTGATGGATCCAGATCCTTAGAAAAGGAGAGGATGGGGGTAGAGTCTCCCAAGCCAAAATT
 TTGACATTTGAGTGCTTTTCGTAAGCCCTGTACATGTACTATTAATTCAGTCATTACAGCCAAGCCTCCTCCTCTAG
 CAGCAATTTCCAGCTGTTTAACTATCCTGGGCAATGTTTTACCCTGTCCTCCAGCCTCCCTGCTTCCCTTCT
 GGCCCTGGAAGACTGAGTCTGGACGGCAGAGTGGAGGGACTGGGAGGCTGTGGCTGCCTCCCTCCCTCAGCCCCG
 CTGGGACTGTCTCCCGACCCAGTGTGGGGTGGGGGAAGGGGACGGAGAATGACTCAGGCAGGGCCCCAGGG
 TGGGGTGAGGAGGTTCTGCTCTGGCAGGTCTAGGCGGAAGGGAGTGGAGATGGGGCTGGTTGCTGCTGCAGTGA
 GGGGAACAGATGGGACAATAAAGACTGGAGACTCAGTTGAATAATGCAAAAAAAAAAAAAA

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FIGURE 631

MAAEADGPLKRLVPIILLPEKCYDQLFVQWDLHVPCLKILLSKGLGLGIVAGSLLVKLPQVFKIRGAKSAEGLS
LQSVMLELVALTGTMVYSITNNFPFSSWGEALFLMLQTITICFLVMHYRGQTVKGVAFLACYGLVLLVLLSPLTP
LTVVTLLQASNVPVVGRLLQAATNYHNGYTGQLSAITVFLFGGSLARIFTSIQETGDPLMAGTFVVSSLCNG
LIAAQLLFYWNAKPPHKQKKAQ

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FIGURE 632

CGGGAGGTCAGAAAACCGGGCCGCGGGCGGCACCGACAGCTGGGGCCCGGGTCAGGGACACGCGGAGGTCAGGCC
GGTGAAGGCGGCAGGAAGCTGGAGCACGATCCCAGGAGGAACAATCCTGCACC**ATG**ACTCAACAGCCACTTTCGAG
GAGTGACCAGCCTGCGTTTCAACCAAGACCAAGCTGCTTTTGCTGCGCCATGGAGACAGGTGTGCGCATCTACA
ACGTGGAGCCCTTGATGGAGAAGGGGCATCTGGACCACGAGCAGGTGGGCAGCATGGGCTTGGTGGAGATGCTGC
ACCGCTCCAACCTTCTGGCCTTGGTGGGCGGTGGTAGTAGTCCCAAGTTCTCAGAGATCTCAGTGCTGATCTGGG
ACGATGCCCCGGGAGGGCAAGGACTCCAAGGAGAAGCTGGTGCTGGAGTTCACCTTCACCAAGCCAGTGCTTTCTG
TGCGCATGCGCCATGACAAGATCGTGATCGTGCTGAAGAACCGCATCTATGTGTACTCCTTCCCCGACAATCCCC
GAAAGCTGTTTGAGTTTGATACCCGGGACAACCCCAAGGGGCTCTGTGACCTCTGCCCCAGCCTGGAGAAGCAAC
TGCTAGTGTTCCCGGGACACAAGTGTTGGGAGTCTGCAACTTGTGGACCTGGCGAGCACAAAGCCTGGCACCTCGT
CTGCTCCATTACGATCAATGCACATCAGAGTGACATAGCCTGTGTGTCTCTAAACCAGCCAGGCACTGTAGTGG
CCTCAGCCTCCCAGAAGGGTACCCTTATTTCGCTCTTTGACACACAATCCAAGGAGAACTGGTGGAGCTGCGCC
GAGGCACTGACCCTGCCACCCTCTACTGCATTAACCTTCAGCCACGACTCCTCCTTCTGCGCTTCCAGTGATA
AGGGTACTGTCCATATCTTTGCTCTCAAGGATAACCCGCTCAACCGCCGCTCCGCGCTGGCTCGCGTGGGCAAGG
TGGGGCCTATGATTGGGCAGTACGTGGACTCTCAGTGGAGCCTGGCGAGCTTCACTGTGCCTGCTGAGTCAGCTT
GCATCTGCGCCTTCGGTCGCAATACTTCCAAGAACGTCAACTCTGTCATTGCCATCTGCGTAGATGGGACCTTCC
ACAAATATGTCTTCACTCCTGATGGAACTGCAACAGAGAGGCTTTCGACGTGTACCTTGACATCTGTGATGATG
ATGACTTTT**TAA**GAGCCCTGGGGGCTGTGCTAGGGACCTGCAGTGGCAGAACTGCAGAGCTGAGCCTTGGCAGTGG
GGCGTGCTTGGAAGCCACCAGCCAGCAAGCATTAAATGGGGCTGGTGCCCACTTTCCACTCAGCAGAGCTATGTCT
AAATAAAGAGCTCACTTCCCCCAGCACTTCTTGATGACTGTGTGCCCAAGGGCCAGGCCAGAGACCCAGGAAG
GCAGCGACCCCTTGGGATCCCTAACCTGGAGGAAATTGCCAGGGACCCAGAGGGAGTGCCCTAATCCAACCTGGG
GATTTTTTAAAGCTTCCTAGGAAGAGATGATCTCCGATGTGATGAATACGAATAAAAGGCCCTTAATGGC

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FIGURE 633

MTQQPLRGVTS LR FNQDQSCFCCAMETGVRIYNVEPLMEKGHL DHEQVGSMGLVEMLHRSNLLALVGGGSSPKFS
EISVLIWDDAREGKDSKEKLVLEFTFTKPVLSVRMRHDKIVIVLKNRIYVYSFPDNPRKLF EFDTRDNPKGLCDL
CPSLEKQLLVFPGHKCGSLQLVDLASTKPGTSSAPFTINAHQSDIACVSLNQPGTVVASASQKGT LIRLFD TQSK
EKLVELRRGTD PATLYCINF SHDSSFLCASSDKGTVHIFALKDTRLNRRSALARVGKVGPMIGQYVDSQWSLASF
TVPAESACICAFGRNTSKNVNSVIAICVDGTFHKYVFTPDGNCNREAFDVYLDICDDDDF

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FIGURE 634

ACGCCCTATACAACCTTGGCTTCACATACTTTTACACTAACCTTTATATGATTTTTTAAAACTGGTCTGATCGGACT
TCTCGTCTCTGGGACACTGTTTACTGGAGTCTGGCCGGCTCTCCGTGCTCCTCTTGGTACCTCATTITGGGGAGAA
CCTTAAACCCACTCGAGCAGATAATCTCCGCCTTGACCGGTGCCACCAAAGAAGGGTTGGAACCATGTGGACTTT
TCTGGGCATTGCCACTTTCACCTATTTTTATAAGAAGTTCGGGGACTTCATCACTTTGGCCAACAGGGAGGTCCT
GTTGTGCGTGCTGGTGTTCTCTCGCTGGGCCTGGTGCTCTCCTACCGCTGTCGCCACCGAAACGGGGGTCTCCT
CGGGCGCCAGCGGAGCGGCTCCAGTTCGCCCTCTTCTCGGATATTCTCTCAGGCCTGCCTTTTATTGGCTTCTT
CTGGGCCAAATCCCCCCTGAATCAGAAAATAAGGAGCAGCTCGGGGCCAGGAGGCGCAGAAAAGGAACCAATAT
TTCAGAAACAAGCTTAATAGGAACAGCTGCCTGTACATCAACATCTTCTCAGAATGACCCAGAAGTTATCATCGT
GGGAGCTGGCGTGCTTGGCTCTGCTTTGGTAGCTGTGCTTTCCAGAGATGGAAGAAAGGTGACAGTCATTGAGAG
AGACTTAAAGAGCCTGACAGAATAGTTGGAGAATTCTGCAGCCGGGTGGTTATCATGTTCTCAAAGACCTTGG
TCTTGGAGATACAGTGGAAAGGTCTTGATGCCAGGTTGTAAATGGTTACATGATTTCATGATCAGGAAAGCAAATC
AGAGGTTTCAAGATTCTTACCCTCTGTCAGAAAACAATCAAGTGCAGAGTGGAAAGAGCTTTCCATCACGGAAGATT
CATCATGAGTCTCCGGAAAGCAGCTATGGCAGAGCCCAATGCAAAGTTTATTGAAGGTGTTGTGTTACAGTTATT
AGAGGAAGATGATGTTGTGATGGGAGTTTCACTACAAGGATAAAGAGACTGGAGATATCAAGGAACCTCCATGCTCC
ACTGACTGTTGTTGCAGATGGGCTTTTTCTCCAAGTTTCAAGAAAAGCCTGGTCTCCAATAAAGTTTCTGTATCATC
TCATTTTGTGGCTTTCTTATGAAGAATGCACCACAGTTTAAAGCAAATCATGCTGAACCTTATTTTAGCTAACCC
GAGTCCAGTTCTCATCTACCGGATTTTATCCAGTGAAACTCGAGTACTTGTGACATTAGAGGAGAAATGCCAAG
GAATTTAAGAGAATACATGGTTGAAAAAATTTACCCACAAATACCTGATCACCTGAAAGAACCATTCTTAGAAGC
CACTGACAATTCTCATCTGAGGTCCATGCTAGCAAGCTTCTTCTCCTTCATCAGTGAAGAAACGAGGTGTTCT
TCTTTTGGGAGACGCATATAATATGAGGCATCCACTTACTGGTGGAGGAATGACTGTTGCTTTTAAAGATATAAA
ACTATGGAGAAAACCTGCTAAAGGGTATCCCTGACCTTTATGATGATGCAGCTATTTTCGAGGCCAACAAATCATT
TTACTGGGCAAGAAAAACATCTCATTCTTTTGTGCTGAATATCCTTGCTCAGGCTCTTTATGAATTATTTCTGC
CACAGATGATTCCCTGCATCAACTAAGAAAAGCCTGTTTTCTTTATTTCAAACCTGGTGGCGAATGTGTTGCGGG
TCCTGTTGGGCTGCTTTCTGTATTGTCTCCTAACCTCTAGCTTTAATTGGACACTTCTTTGCTGTTGCAATCTA
TGCCGTGATTTTTGCTTTAAGTCAGAACCTTGATTACAAAACCTCGAGCCCTTCTCAGTAGTAGTGCTGTATT
GTACAAAGCGTGTTCTGTAATATTTCTCTAATTTACTCAGAAATGAAGTATATGGTTTCATTAAGCTTAAAGGGG
AACCATTTGTGAATGAATATTTGGAACCTTACCAAGTCTTAAGAGACTTTTGGAGAGGATATATATAGCATAGTA
CCATACCACTTATAAAGTGGAAACTCTTGACCAAGATTTGGATTAAATTTGTTTTTGAAGTTTTTGTATATAAA
TATGTAAATACATGCTTTAATTTGCAATTTAAAATGAAGGGGTAAATAAGTTAGACATTTGAAAGAAATGATTG
TTACCATAAATTAGTGCTAATGCTGAGGAGAACTACAGTTTTTCTTTTGAATTTAGTATTTGAGATGAGTTGTTG
GGACATGCAAATAAAATGAAGAATGAC

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FIGURE 635

MWTF LGIATFTYFYKKFGDFITLANREVLLCVLVFLSLGLVLSYRCRHRNGG LLGRQRSGSQFALFSDILSGLPF
IGFFWAKSPPESENKEQLGARRRRKGTNISETSLIGTAACTSTSSQNDPEVIIVGAGVLGSALVAVLSRDGRKVT
VIERDLKEPDRIVGEFLQPGGYHVLKDLGLGDTVEGLDAQVVNGYMIHDQESKSEVQIPYPLSENNQVQSGRAFH
HGRFIMSLRKAAMAEPNAKFIEGVVLQLEEDDVVMGVQYKDKETGDIKELHAPLTVVADGLFSKFRKSLVSNKV
SVSSHVFGFLMKNA PQFKANHAELILANPSPVLIYRISSETRVLVDIRGEMPRNLREYMVEKIYPQIPDHLKEP
FLEATDNSHLRSMLASFLPPSSVKKRGVLLLGDAYNMRHPLTGGGMTVAFKDIKLWRKLLKGIPDLYDDAAIFEA
NKSFYWARKTSHSFVVNILAQALYELFSATDDSLHQLRKACFLYFKLGGE CVAGPVGLLSVLSPNPLALIGHFFA
VAIYAVYFCFKSEPWITKPRALLSSSAVLYKACSVIFPLIYSEM KYMVH

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FIGURE 636

GGCACGAGGGCGCGGCGGAGGCTCCCGTGGCCTCGGACGCTCCTCCTAGCTAGCGGCCGCCGCCGCCGCCCGCT
 GCGCCTCCAGCTCCTTCGCCCCGGCGGGCCCGGCCCGCTTCCGGCAGCTCACCTGGGAAGCGCTCACCTGGGA
 CGCGCTCACCTGGGACGCGCTACCTGCCTCCGGGCGCCTGGGCTTCAGGATGAAGGACCGTCTGGAGCAGCTGAA
 GGCCAAGCAGCTGACACAGGATGATGATACTGATGCGTTGAGATTGCTATCGACAACACGGCTTTTATGGACGA
 GTTCTTTTCTGAGATTGAGGAACTCGGCTTAACATTGACAAGATCTCAGAACATGTAGAGGAGGCTAAGAACT
 CTACAGTATCATTCTCTCTGCACCGATTCCAGAGCCAAAAACCAAGGATGACCTAGAGCAGCTCACGACTGAGAT
 TAAGAAAAGGGCCAACAACGTCCGGAACAACTGAAGAGCATGGAGAAGCATATTGAAGAAGATGAGGTCAGGTC
 ATCGGCAGACCTTCGGATTTCGGAATCCCAGCACTCTGTCTTTCTCGGAAGTTTGTGGAGGTGATGACCAAATA
 CAATGAAGCTCAAGTGGACTTCCGAGAACGCAGCAAAGGGCGAATCCAGCGGCAGCTCGAAATTACTGGCAAAAA
 GACAACCGATGAGGAGCTGGAGGAGATGTTGGAGAGTGGCAACCCGGCCATCTTCACTTCTGGGATCATTGACTC
 ACAGATTTCCAAGCAAGCCCTCAGTGAGATTGAGGGACGACACAAGGACATTGTGAGGCTGGAGAGCAGCATCAA
 GGAGCTTCACGACATGTTTATGGACATCGCCATGCTGGTGGAGAATCAGGGTGAGATGTTAGATAACATAGAGTT
 GAATGTCATGCACACAGTGGACCACGTGGAGAAGGCACGAGATGAAACGAAAAAAGCTGTGAAATACCAGAGTCA
 GGCCCGGAAGAAATTGATAATTATCATTGTGCTAGTAGTTGTGTTGCTGGGCATTTTAGCATTGATTATTGGACT
 TTCCGTTGGGCTGAATTAAGAGTGGCCTAAGAGGCTGCTGCACTGAAATAAACTGATTTCACTCCAGACTGGTGT
 GGCCACCCCTTGCTCTCAGATGAGAATGGAGTCTGAATGGCCTTCCTGAGAGCGAGTGCACCCGTTCCTTTGT
 CCTTGCAACCACCCCTTGACCTGACTCAGCTAACAATCTAGCCCTGGGGGAATGTGATCTACCTGATGCGACCC
 GAGTTCTCCCCAGAGCCTCCTCCTGCCCCACCAGCTCTCAAGTACCTTTCTCCTGGACTGTGTGGACCCACCCA
 GCTTTCTTCTCCTGTTGTGTGTCAGATTATGCCTTGCACTTGGGAAAGCTCTTGTGAGACTCTCCCAAGGTGC
 TGTATTTTTCTACCTCATGGAGTATTCTCCAGAACTGCAATGTATTTTTTTAGGGGAGTATCTTTAACAAAGC
 AGAATGATTCTTCTAAGTTTGGCAACAAGAAGGCTTGATCTGAGTCTTCTACCTGGCAGGATGCCAATCCTGTT
 TGTGTGCGTATGCTCTGAAAACATGAGGGACTGGCAGATGTCAATTTGGTCTAAAGAGCTGACTTGTGTTGAAAT
 TCAGCCTTAAATTAAGCTCTTAGTTGTTTCACTTGGGGGGCAACTTTGATTTTTCTCTGTGTTGTAGTCTCTCAT
 ATTTACTCAAGGAGGGACCAGGATGATACAGTCATCTGAGGTTATGCTTTGCAAAAGGCTGACGGTATGGAATAT
 GTTTCCATGTCTGAGTCTTAGAACTGGCTGCTCATTGTTAGAAAGTGATGCTTTGTGAGACTATTGTCTTGGGG
 CCAAAAATAATCAGGGATTTTAAATTGGGCAAGGGACAAGGTGCTAGAATCCTAAGCTCTGGAAATATTTTATGA
 CACTGGTGTATTCACTCATGTGTTCCAGATGTATTCTAATTGTGTATGAAATGTATGTACACATAAGTGTGTGTG
 TCTCAGGAAGTAGGAAATAAAATGGAAGCTATTATGACCTCAAAAAAAAAAGCCAACCTTGAGCTAGGATAAA
 AATTGGGTAAAGGACATTTGCTTACCTGCAATGAATCACTGTGGAATGTGATCTTCCCATATCATCAAGAAAC
 TTGTTTTCTGGATGAATACTGGGAGAATAAAATGAGAATCTGGAGTGAGCTAAATTGATCCCAATTAAGTTTTT
 CTGCTTAGCAGACAGAAGGTATAATTTTTTGACACCTTTCCACCTGGTGCCTATGCTAGGCTTGTCTGAGAA
 CATCCCTCAGTAACTTGATATTCACATGACCTACAGGATGTCCCATCTGCAGGGCTGAGTCAGTTGGGGAACACC
 AGAGGCTACACAGTAGCTCTTCTGCTACTCGGTTAATGAGCTTGGCAGGTTCTTGTCTCACTGAATTCTTATC
 ATGGAACAGCAGCAGCAGCCGCTAGGAAATCTTCAAGTGATGTCTGTGCTAACCAGTGGTAAATCCCTTAG
 ATCCCTGCTGGTCTCTGGCAGTCTCCTTGATTTTGGGTACCATGTATATTTCCGCTTTGACTTTAACGCTTTC
 TAGGATAGGGTAAGCACCTTAATTCAGGCACGTGTCATTAGCTTCTTTGCAAAGGCTACTTATGGCCGGTCAC
 AATCCAGCACTCAGACAGAGCCAAGGCAATATCCTCTTGCCCATGGCTATGATGTCAGACAGTGGATGGGCTCCA
 GCAACAAGAGACAAAAATACTAAAGGCCTTGCTCTCCTCTGACATTGAGGCCTGGGGCTTACAGTTTGAATAC
 AACATGTGAAGGTTTTTGTGTTGTTGTATTTTTTAGATGTAACTTGATTATTTTATTGCTAATTTAAAAATA
 AAAATGACTTTGTATTGATTGTGAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 637

MKDRLEQLKAKQLTQDDDTDAVEIAIDNTAFMDEFFSEIEETRLNIDKISEHVVEAKKLYSIILSAPIPEPKTKD
DLEQLTTEIKKRANNVRNKLKSMEKHIEEDEVRSSADLRIRKSQHSVLSRKFFVEVMTKYNEAQVDFRERSKGRIQ
RQLEITGKKTDEELEEMLESGNPAIFTSGIIDSQISKQALSEIEGRHKDIVRLESSIKELHDMFMDIAMLVENQ
GEMLDNIELNVMHTVDHVEKARDETKKAVKYQSQARKKLIIIVLVVVLGILALIIGLSVGLN

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FIGURE 638A

AATAAGAAAAAGCTTTTCATTTTGAAATCTAGAATACCTCCACTTTTGAAAATCTTTGATTTCCTCAAATTTTTCT
TGCTATGCACTAGTTAAAAGATAAGGTATTATATAATGAGCAATAGCACAGATCTCAAAGCTTTTGAGTTGCATA
TGGGCCATAACCTTCTTTTCTGTAACGTGCATACCCATGCATTAACACTTGTGCGCTTTTCCAGATCTGCTCACTT
TAGCACTCTGGCAATTAAACAGAACCCCTTCTGGCAGAAGCTTATTGCAATTTGGGGAATGTGTACAAGGAAAG
AGGGCAGTTGCAGGAGGCAATTGAGCATTATCGACATGCATTGCGTCTCAAACCTGATTTTCATCGATGGTTATAT
TAACGCTGCAGCCGCTTGGTAGCAGCGGGTGACATGGAAGGGGCAGTACAAGCTTACGTCTCTGCTCTTCAGTA
CAATCCTGATTTGTACTGTGTTTCGAGTGACCTGGGGAACCTGCTCAAAGCCCTGGGTGCTTGGAGAAGCCAA
GAAGGTTTCAGGTGGGTGAAACCTCCTATTCCATGCGTAAGGTGCTCGCTGAAGGGAGCTCGAGGCCTGGATCT
AGGGCAGACACACAACCTCCTCCTCCTCTTCCAGCAAGGAACGCACCCGAAAAGTCACATGATGAGAAATATGGTA
ACGGGTTTGTAACTGCCACAGCAAAACAATTTGCCTCCATGCCTGAATCTTCTGTCTTGTGGCTTCAGAAACAGC
TTAAATAATTTTATTTTACAAGCAAGTTATGTAAGAGAATGTTTATACTATAGCCACAATTCTGTCAAAGATAA
GTAAAGTTAATTGATATTAAAAATTATTAGAGATAATTTACTTAGTAAAAGCTTCTAACTCTTCTTGTGTTCA
TTTTTTTTCTTTTTTCTTCTTGTGTTGGATTGCAGCATTCTGCTCTTCTGATGATGCGCTGTGACCCTGCAGTA
GCGCAAAGGCTGCGCAGCGTTAATGCGCATTGCGTGCGAATGAACCCCTGTGAACGGTTGACTAGATGAGTAATC
TGATTGACTGGCTCCCTCAGTCCTATTCTGTAGCCTTTTTGGATAAAATTGGGTTTTAACATAACCTCGAGTCCAA
CTAATCTCATTAACAAATATTCTCCATGGGCCTGTCTAGTAGATTAATGGATCTGGTTGGCCGTTTGTGCTGCGTC
TAGGGGTGTTCTATGTAGCGCAGCAGTTTCGAGCGATTGCGCAGTGCGATGCTGTTAGGTTGCGCAAGCGATGTT
TGCCTGCGATTACAGGGACCTCAACCTAGGTGCAATCCTGTCTGTGAGGTTTCAGCTTCAGTCTCCTTGGGA
GACGGGGCATTGTGAGAATGTAACCTAAAGCCTGGCTTTATGATATCCTACTTGGCAGAAAGACATTTTTCTCCT
CAGTAGCATAGTTTTGATGTTAGTGAGGAACATTGTTGAAGAGCAGCATTTCCTCAAATGTGTTTCATAGTATTC
TAATAAAATGCCCAATGAAAGAAGAGTTCCATGGTCAACTAAGTTCAGGGAACCCCTGTTACACTATTAAAGGCTT
AGGGAAGTCCAGTAAAGAAACCTATTTTCCGAATTTATTTGATCATGAACCTTTTTTTTTTCAGCCATACCTCT
TAACACCTCATAGAACACACTTTGGGAAACAGTGGGGGTAGGAAAACTCGGCCTCAAGTTGCGCCCTCTAGGTAG
CACTTGAAAACATGACAAGGGCCGTAGTTGTTTGGATAAGAGAAGTCCAGCATAGAGCCTTATAGCAACTGACT
TCCCAGTTAAGTCCCAGTGTAAAGGTTGGTCTTTGGTTGGCAGAACTGAACATGGTGGTTTGCAGTTGGGTTCTG
GTGGCGCAGGCGCAGGAGCAGCCAGCTGTGGCAGCGCATTAGTTTTGGCGCAAGCGAGCCTATGCTGCAGGGTCA
CTTTTGGCTGGTCAGAGAAGGAATAATGATATACCTTCTTCCCCCCTCCCCCAATCTTTTTTTTTTCCCTTT
ACAAATTTTCCCCTTTCCCTTTACCTCCTTTCCCTCCCATCTTCTTTCATTAACCCCTCCTAAGGCATGTTATTT
GAAAGCAATTGAGACGCAACCGAAGCTTTGAGTAGCTTGGAGTAATCTTGGCTGTGTTTTCAATGCACAAGGGGA
AATTTGGCTTGCAATTCATCACTTTGAAAAGGCTGTACCCCTTGACCCAAACTTTCTGGATGCTTATATCAATTT
AGGAAATGCTTGAAAGAGGCACGCATTTTTGACAGAGCTGTGGCAGCTTATCTTCGTGCCCTAAGTTTGAGTCC
AAATCAGCAGTGGTGCACGGCAACCTGGCTTGTGTATACTATGAGCAAGGCCTGATAGATCTGGCAATAGACAC
CTACAGGCGGGCTATCGAACTACAACCACATTTCCCTGATGCTTACTGCAACCTAGCCAATGCTCTCAAAGAGAA
GGGCAGTGTGCTGAAGCAGAAGATTGTTATAATACAGCTCTCCGTCTGTGTCCACCCATGCAGACTCTCTGAA
TAACCTAGCCAATATCAAACGAGAACAGGGAAACATTGAAGAGGCAGTTCGCTTGTATCGTAAAGCATTAGAAGT
CTTCCCAGAGTTTGTGCTGCCATTCAAATTTAGCAAGTGTACTGCAGCAGCAGGGAAAACCTGCAGGAAGCTCT
GATGCATTATAAGGAGGCTATTGCAATCAGTCTTACCTTTGCTGATGCCTACTCTAATATGGGAAACACTCTAAA
GGAGATGCAGGATGTTACAGGAGCCTTGCAAGTGTATACGCGTGCCATCCAAATTAATCCTGCATTTGCAGATGC
ACATAGCAATCTGGCTTCCATTATAAGGATTACAGGGAATATTCCAGAAGCCATAGCTTCTTACCGCACGGCTCT
GAAACTTAAGCCTGATTTTCTGATGCTTATTGTAACCTGGCTCATTGCCTGCAGATTGTCTGTGATTGGACAGA
CTATGATGAGCGAATGAAGAAGTTGGTCAGTATTGTGGCTGACCAGTTAGAGAAGAATAGGTTGCCTTCTGTGCA
TCCTCATCATAGTATGCTATATCCTCTTCTCATGGCTTCAGGAAGGCTATTGCTGAGAGGCACGGCAACCTGTG
CTTAGATAAGATTAATGTTCTTATAAACCACCATATGAACATCCAAAAGACTTGAAGCTCAGTGATGGTTCGGCT
GCGTGTAGGATATGTGAGTTCCGACTTTGGGAATCATCTACTTCTCACCTTATGCAGTCTATTCCAGGCATGCA
CAATCCTGATAAATTTGAGGTGTTCTGTTATGCCCTGAGCCCAGACGATGGCACAAACTTCCGAGTGAAGGTGAT
GGCAGAAGCCAATCATTTTATTGATCTTTCTCAGATTCCATGCAATGGAAAAGCAGCTGATCGCATCCATCAGGA
TGGAATTCATATCCTTGTAAATATGAATGGCTATACTAAGGGCGCTCGAAATGAGCTTTTTGCTCTCAGGCCAGC
TCCTATTACAGGCAATGTGGCTGGGATACCCTGGGACGAGTGGTGCGCTTTTCATGGATTATATTATCACTGATCA

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FIGURE 638B

GGAAACTTCGCCAGCTGAAGTTGCTGAGCAGTATTCCGAGAAATTGGCTTATATGCCCCACACTTTTTTTATTGG
TGATCATGCTAATATGTTCCCTCACCTGAAGAAAAAGCAGTCATCGATTTTAAGTCCAATGGGCACATTTATGA
CAATCGGATAGTTCTGAATGGCATCGACCTCAAAGCATTCTTGATAGTCTACCAGATGTGAAAATTGTCAAGAT
GAAGTGTCTGATGGAGGAGACAATGCAGATAGCAGTAACACAGCTCTTAATATGCCTGTTATTCCATGAATAC
TATTGCAGAAGCAGTTATTGAAATGATTAAACCGAGGACAGATTCAAATAACAATTAATGGATTTCAGTATTAGCAA
TGGACTGGCAACTACTCAGATCAACAATAAGGCTGCAACTGGAGAGGAGGTTCCCCGTACCATTATTGTAACCAC
CCGTTCTCAGTACGGGTTACCAGAAGATGCCATCGTATACTGTAACCTTAATCAGTTGTATAAAAATTGACCCTTC
TACTTTGCAGATGTGGGCAAACATTCTGAAGCGTGTTCCTAATAGTGTACTCTGGCTGTTGCGTTTTCCAGCAGT
AGGAGAACCTAATATTCAACAGTATGCACAAAACATGGGCCTGCCCCAGAACCGTATCATTTTTTTCACCTGTTGC
TCCTAAAGAGGAACACGTCAGGAGAGGCCAGCTGGCTGATGTCTGCTTGGACACTCCACTCTGTAATGGGCACAC
CACAGGGATGGATGTCCTCTGGGCAGGGACCCCCATGGTGACTATGCCAGGAGAGACTCTTGCTTCTCGAGTTGC
AGCATCCCAGCTCACTTGCTTAGGTTGTCTTGAGCTTATTGCTAAAAACAGACAAGAATATGAAGACATAGCTGT
GAAGCTGGGAACTGATCTAGAATACCTGAAGAAAGTTCGTGGCAAAGTCTGGAAGCAAAGAATATCTAGCCCTCT
GTTCAACACCAAAACAATACACAATGGAAGTAGAGCGGCTCTATCTACAGATGTGGGAGCATTATGCAGCTGGCAA
CAAACCTGACCACATGATTAAAGCCTGTTGAAGTCACTGAGTCAGCATAAAATAAGACTGCACAGGAGAATTACCC
CTATACCTGAGCCTCAACCTTCTGGGGGAAAGGGAAGTAGATAACATACTTCTTACTTGTCTGTACAGTACCTTG
TTGCAGATGGGTGATATATAATGGTAATAGAATAGCACAGCCAGACTTGCTTCCTGCATGGTAGGGAGAGACACA
AAAGATGGGAACTGCTTTTCCACAAGGAATCTCCGTAGAATTTTGCGGCGACCAGATGGTGCATAGGTCTGGAA
GGTCTGATCTCCCTTGGTCTTCCATGGGATGGTTAGTGTGGAGGGGAGATATAGATTGTCCGGCCGCTTTGTGAT
TCCATGGATTGATTTCAGTCTTCTGGATTTTTTTTTTCTTTATATTTGGGTACTGGAGCTTTTAAAAATGTTTGGT
TTCAGGTATTTTTATTTCATGTGAAGTGTATATGATTCTCTTGAGATAAGGTTTTAAGCTAAAATGTTACTCCCTG
TTTTAGTTTCTGAACTCTGACAGATTGACAGGGACTTTGCTGGTGTAGTCTTTTTATAGGTTTTATAAACCCTT
GAGCCTATATCAGTCGTTTTAGTGTCTGACCTAATATTTGGAGCTATCAGTGCTTTGTTGATTTAGATGATGACT
CAAGATTTTTTCTGGTCCATTTCCCATTTCTTTCTTCCCTGACCCCCATACCCTCACCTTAAAATTCTCCTG
TAACTCAACTAACAAAATCAAGCCTGATTCAAACATCCTAGGGTGTTTTAAACACACCATCTGGTGCCAAATGA
AGATTTTTTAGGAGTGATTACTAATTATCAAGGGCACAGTTGTGGTACTGTCAATTGATAATAATATAGTTTTTTTT
TTTTTCCCTAATTTTGACCTGTTTACCAGTGTTTTACCCTTGACTGCCCCCTTCTATGCTGCTTCCAAAAGTGATA
GTGTGTGTAAGATTTTTACCTTCCTTTCTAAAGTTTTTTTTTTTTTTTTTAAAGTGAGTCCTGTTCTTCTATTT
CTTTACAGCAGAAATGAAATCCCAGGTAAGTATAAGTATTCAAGTATTTGATCAGTAAGTCACAGTTATCTCCAGT
GCATTAAATAACCTTCATCAAGAAATAGGTTATAGGTAAATCTCTGAAGGATCATCTATGTATTCAAGTAATTA
TTTTTTAGATAATAACTGTCTTCTGGACTTGGTCTTGAAGTCTGTACAGATTTCAGCCTCAGTAGTAGCGAACTGC
ACTGCTGTTTGGTTTGGAGTACAAATTAGACTTATAGTCCTCCTGGAACCTGAGTTATTAAAATCATAGGAATAA
AATTATGGGATCTCAACAAAGGGTCGAGGGTTTGAGGCTTAAACAAGCCAACATATGAATATATGTTTTGTCTCG
CTATACTGCACTTACGCTATCCAGTTGCAGGTAATTTTTGTCTGCTAGTAGTGTCTAGATTATGTCTTTCCAA
AGCGCTGAGGCTGTGCACCTATTCTGTAGTTGCAGCTGATGCCTGAATGTATCCTAGCTGACAAATTATTGATTA
ATAAGAACTTGAATTTCTGGAAGATTCTTACTGTTAACCATAATTTGAGCAAGGAGTCTCAAAGGTAATTCTGAA
CCAGAATTACATGTTAATGAACAGTGTACCTTTAACAGTGTAAATCACGGAATATCCGTGAAGGGATTCTTAA
TTTATTTTTTACCAGTTGATTGAAATATCAGTTAAAGGTTGCCAGCATGGTTGCAGATAAACTGATGTTTGAAAT
TCGCTGAAATACTTAATGTGGAATAGGATAATATACTTCCAATGCCCTCAAGGCTGTGACCTTACAGCCATTTTA
CATAGCACATCATTCCTCCTATAGGGATGAACTTTTCTGGCACGAAAAGTAGCCGCTCTGGTTGAAGCTTTGC
TTATTGTAACAGGCTTTTATTTCCAGGTAATATGTCTTGAAGACTTAATTCTGATTAGAGATATAGATATTACT
GGAAACTAATTGTTTTTTTTCTATTGTACTCTGCTTTATCAAAGAAGTAAAAACATTTAAATCGTACTACAGAAAT
TAAGATGTTGTCTTGCATCCTTAATAAATGAATGATTTCCCTTTAAAAAAA

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FIGURE 639

MISPSSPPPPNLFFFPLQIFPPFTSFPSHLLSLTPPKACYLKAIETQPNFAVAWSNLGCVFNAQGEIWLAIHFF
 EKAVTLDPNFLDAYINLGNVLKEARIFDRAVAAYLRALSLSPNHAVVHGNLACVYYEQGLIDLAIIDTYRRRAIELQ
 PHFPDAYCNLANALKEKGSVAEAEDCYNTALRLCPHADSLNNLANIKREQGNIEEAVRLYRKALEVFPEFAAAH
 SNLASVLQQQGLQEALMHYKEAIRISPTFADAYSNMGNLTKEMQDVQALQCYTRAIQINPAFADAHSNLASIH
 KDSGNIPEAIASYRTALKLKPDFFDAYCNLAHCLQIVCDWTDYDERMKKLVSIVADQLEKNRLPSVHPHHSMLYP
 LSHGFRKAIAERHGNLCLDKINVLHKPPYEHPKDLKLSDGRLRVGYVSSDFGNHPTSHLMQSIPGMHNPDKFEVF
 CYALSPDDGTNFRVKVMAEANHFIIDLSQIPCNGKAADRIHQDGIHILVNMNGYTKGARNELFALRPAPIQAMWLG
 YPGTSGALFMDYIITDQETSPAEEVAEQYSEKLAYMPHTFFIGDHANMFPHLKKKAVIDFKSNGHIYDNRIVLNGI
 DLKAFLDSLDPVKIVKMKCPDGGDNADSSNTALNMPVIPMNTIAEAVIEMINRGQIQITINGFSISNGLATTQIN
 NKAATGEEVPRTIIVTTRSQYGLPEDAIVYCNFNQLYKIDPSTLQMWANILKRVPNVSWLLRFPVAGEPNIQQY
 AQNMGLPQNRIIFSPVAPKEEHVRRGQLADVCLDTPLCNHGTGMDVLWAGTPMVTMPGETLASRVAASQLTCLG
 CLELIAKNRQEYEDIAVKLGTDLEYLKKVRGKVWKQRISSPLFNTKQYTMELERLYLQMWHEYAAGNKPDMIKP
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FIGURE 640

ATGCGTGAGTGCACTCTCCATCCACGTTGGCCAGGCTGGTGTCCAGATTGGCAATGCCTGCTGGGAGCTCTACTGC
CTGGAACACGGCATCCAGCCCGATGGCCAGATGCCAAGTGACAAGACCATTGGGGGAGGAGATGATTCCTTCAAC
ACCTTCTTCAGTGAAACGGGTGCTGGCAAGCATGTGCCCCGGGCAGTGTGTTGTAGACTTGGAACCCACAGTCATT
GATGAAGTTTCGCACTGGCACTTACCGCCAGCTCTTCCACCCTGAGCAACTCATCACAGGCAAGGAAGATGCTGCC
AATAACTATGCCCCGAGGGCACTACACCATTGGCAAGGAGATCATTGACCTCGTGTGGACCGAATTCGCAAGCTG
GCTGACCAGTGACCGGTCTTCAGGGCTTCTTGGTTTTCCACAGCTTTGGTGGGGGAACCTGGTTCTGGGTTACAC
TCGCTGCTCATGGAACGTCTCTCAGTTGATTATGGCAAGAAGTCCAAGCTGGAGTTCTCCATTTACCCGGCGCCC
CAGGTTTCCACAGCTGTAGTTGAGCCCTACAACCTCATCCTCACCACCCACACCACCCTGGAGCACTCTGATTGT
GCCTTCATGGTAGACAATGAGGCCATCTATGACATCTGTCTAGAAAACCTCGATATCGAGCGCCCAACCTACACT
AACCTTAACCGCCTTATTAGCCAGATTGTGTCTCTCCATCACTGCTTCCCTGAGATTTGATGGAGCCCTGAATGTT
GACCTGACAGAATTCCAGACCAACCTGGTGCCCTACCCCCGCATCCACTTCCCTCTGGCCACATATGCCCCTGTC
ATCTCTGCTGAGAAAGCCTACCATGAACAGCTTACTGTAGCAGAGATCACCAATGCTTGCTTTGAGCCAGCCAAC
CAGATGGTGAAATGTGACCCTCGCCATGGTAAATACATGGCTTGCTGCCTGTTATACCGTGGTGACGTGGTTCCC
AAAGATGTCAATGCTGCCATTGCCACCATCAAAACCAAGCGTACCATCCAGTTTGTGGATTGGTGCCCCACTGGC
TTCAAGGTTGGCATTAAATTACCAGCCTCCCACTGTGGTGCCCTGGCGGAGACCTGGCCAAGGTACAGAGAGCTGTG
TGCATGCTGAGCAATACCACAGCTGTTGCCGAGGCCTGGGCTCGCCTGGACCACAAGTTTGACCTGATGTATGCC
AAGCGTGCCTTTGTTCAGTGGTACGTGGGTGAGGGGATGGAGGAAGGCGAGTTTTTCAGAGGCCCGTGAGGACATG
GCTGCCCTTGAGAAGGATTATGAGGAGGTTGGAGCAGATAGTGCTGACGGAGAGGATGAGGGTGAAGAGTATTAA

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FIGURE 641

MRECISIHVGQAGVQIGNACWELYCLEHGIQPDGQMPSDKTIGGGDDSFNTFFSETGAGKHVPRAVFVDLEPTVI
DEVRTGTYRQLFHPEQLITGKEDAANNYARGHYTIGKEIIDLVLDRIKRLADQCTGLQGFLVFHSFGGGTGSGFT
SLLMERLSVDYGKKSLEFSIYPAPQVSTAVVEPYNSILTTHTTLEHSDCAFMVDNEAIYDICRRNLDIERPTYT
NLNRLISQIVSSITASLRFDGALNVDLTEFQTNLVPYPRIHFPLATYAPVISA EKAYHEQLTVAEITNACFEPAN
QMVKCDPRHGKYMACCLLYRGDVVPKDVNAAIATIKTKRTIQFVDWCPTGFKVGINYQPPTVVPGGDLAKVQRAV
CMLSNTTAVAEAWARLDHKFDLMYAKRAFVHWYVGEGMEEGEFSEAREDMAALEKDYE EVGADSADGEDEGEY

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FIGURE 642

AGTGTGGTTTTAGTTTTTCCTAAGAAGTGGCGTGGTTTGGGGCTTTATATCCGGGAGGAGCATATGTACGCAAAT
CCTGGGGCGTTTTGCAAACCCGGATCCGGGGCGTCTGGCCCCATGCCCGCGGGCGTTTTGAGGGCTACTGCCACG
CAGCGTTTTCTGGAGCCTGCCGGCTGGTGCCCTGGTGGCCTTTATCTCTGTCCCCCTTTGTCTCTTTATCTCAGG
CTCTCCAGGAGGCCGGGGGGCCACTCCGCCTATCGCTCCCCCTCGGCTACGCTGCCACTCCAATGCCCGCAGGT
CGCGAGCTGCTGTTCTTTGGAAGGCGCCGGAGAACCAGGGGCGTCCCGCGCCACCTCTGACTCGGAGCAGCGCCG
AGCACTGACGCTCCCGCCCTTGGGCAAGGACGCCAGTGCGCCCGCGCGCTCCCTCTGCGCGGCAGCCCGTCGCG
GGCCCTCAAGGGGAAGCCCAGGCCAGGATGCCCCCGGGTTCGCGCGGTGGCCGGGCTCCTGTTGCTGGCGGCCGCC
GGCCTCGGAGGAGTGGCGGAGGGGCCAGGGCTAGCCTTCAGCGAGGATGTGCTGAGCGTGTTCGGCGCGAATCTG
AGCCTGTGGCGGGCGCAGCTCCAGCACTTGCTGGAGCAGATGGGAGCCGCTCCCGCGTGGGCGTCCCGGAGCCT
GGCCAGCTGCACTTCAACCAGTGTTTAACTGCTGAAGAGATCTTTCCCTTCATGGCTTTTCAAATGCTACCCAA
ATAACCAGCTCCAAATTCTCTGTCATCTGTCCAGCAGTCTTACAGCAATTGAACTTTACCCATGTGAGGATCGG
CCCAAGCACAAAACAAGACCAAGTCATTGAGAAGTTTGGGGATATGGATTCTGTGCTGACGATTATTAATCTG
GCATCTCTCCTCGGATTGATTTTGACTCCACTGATAAAGAAATCTTATTTCCCAAAGATTTTGACCTTTTTTGTG
GGGCTGGCTATTGGGACTCTTTTTTCAAATGCAATTTTCCAACCTATTCCAGAGGCATTGGATTGATCCCAAA
GTCGACAGTTATGTTGAGAAGGCAGTTGCTGTGTTTGGTGGATTTTACCTACTTTTCTTTTTTGAAGAATGCTA
AAGATGTTATTAAAGACATATGGTCAGAATGGTCATACCCACTTTGGAAATGATAACTTTGGTCTCAAGAAAAA
ACTCATCAACCTAAAGCATTACCTGCCATCAATGGTGTGACATGCTATGCAAACTCTGTGTCACAGAAGCTAAT
GGACATATCCATTTTGATAATGTCAGTGTGGTATCTCTACAGGATGGAAAAAAGAGCCAAGTTCATGTACCTGT
TTGAAGGGGCCCCAACTGTGCAAAATAGGGACGATTGCCTGGATGATAACGCTCTGCGATGCCCTCCACAATTTT
ATCGATGGCCTGGCGATTGGGGCTTCTCTGCACCTTGTCTCTCTCTTCAGGGACTCAGTACTTCCATAGCAATCCTA
TGTGAGGAGTTTCCCCACGAGTTAGGAGACTTTGTGATCCTACTCAATGCAGGGATGAGCACTCGACAAGCCTTG
CTATTCAACTTCTTTCTGCTATGTTCTGCTATGTTGGGCTAGCTTTTGGCATTTTGGTGGGCAACAATTTCTGCT
CCAAATATTATATTGCACTTGTGAGGCGATGTTCTCTATATTTCTCTGGCAGATATGTTTCCAGAGATGAAT
GATATGCTGAGAGAAAAGGTAAGTGAAGAAAAACCGATTTCACCTTCTTCATGATTGAGAATGCTGGAATGTTA
ACTGGATTACAGCCATTCTACTCATTACCTTGTATGCAGGAGAAATCGAATTGGAGTAATAGAAAATGGAAGAT
GGTGTGTTAATAAAGGCATTTAATAGATAAAAAACATCTCCAAAAGGATTTTGAAGCTGATCCTATTTAGTTAA
AAAGATAATTTTGTCTTCAACTGTAGGTCCAGAAAATAATTATTGGCATCAGTCTGTGAAATAGTCCATTATTT
GTTGTAAATAATGCTTCAAAAGGTTTTCAGTGTGAGTCTGAGATGCCTGGTATATAGGAGCCTTTGGGAAATACT
TATTTTTTCACTATTCCATGCATATTAGATATCACCATGAAGCAAGAGACATGCATTCTATAATCATGTAGACACT
CAGACTCAGGGGAAAAATACAAGTTATATCCTGAAAGCCTTTAAACTCTATGGTAGGATCAAAGATTCAAATGGT
TTCAGAGAGGTTTTATTTCATTAATTTGTTCTAGTGCTTTCAAGAGCAAGTACATCAAATGTAGAAGGTAAAA
TGTATGCAACACTAATATAAATTATTCCAAGTCTTTAAGGAGCCAAAAGAAAAAAGATTTCTCACAGCTTTTTG
TTCTGTTTTGTATTTCAATTAGGAACCTGCAGTATTATTTTGAAGAACCTTCTAAATAATAGGAGTTAGGAAAT
AAATAAAGTTTTGCTAGCCCTGCTAAGTTTCAGGCTTAGAGGCTTATCGCTAAGTXTAACTTCACCAGATTCCAC
GAAAAGCTGGATAGCTTTTTTTCTGACTTATGTTGTGGTTGCACCCCTCACAAATGGCAGAACAGTATGTAAAGC
TGGTAACACCTCGGTTTCAGTGCACCATGTGTTTGGCTTTGTGAAGGTGAAGAATATGTTGGTTTTAGAGAAAGAAA
TTGGATGTAATTTTATGCAATTTACTTTTTAAAGACAAACATAACTATTTAGCAGAGAATATTTTAAATAATGCAA
AACAACAGCTGGACTGCTGTACATCAAGGACAGATTAAGTGAAGAACATATGTTCTTATGTGTGATTGAGAGCC
ATTCAGAAAAGACTTCCTTTGTGTTTCAGCCTATACTTTTCCATATGGTATACCTTGAAAAAATTAGCACACCAT
GGTTATTTTTCTACCTTTTATAAAAGACAGAGCCTGTTTACTCATTTAGAAGATAGAGAAAATTTGGTCTAAAATT
GAACATCCTAGATTCACACTCCCAAGTCACCTAAGGTGATTTGATGGTGAGGAAAATGATTGACAAAGCCCAACA
ATGATCTCAGGAATTACATTTTCCAACAGACCAAAAAATGTTTTCATGTAGCAGCAATGCAGATTTGGTGAATAT
TTAATATATATTTTAGTATGATTTTCACTTTATGACTGACAATAAAAAATATTGTTTGGCCAAATAGTAAACAC
CCTTTTGAACCATGAAAAAA

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FIGURE 643

MAPGRAVAGLLLLAAAGLGVAEGPGLAFSEDVLSVFGANLSLSAAQLQHLLLEQMGAASRVGVPEPGQLHFNQCL
TAEEIFSLHGFSNATQITSSKFSVICPAVLQQLNFHPCEDRPKHKTRPSHSEVWGYGFLSVTIINLASLLGLILT
PLIKKSYFPKILTFFVGLAIGTLFSNAIFQLIPEAFGFDPKVDSYVEKAVAVFGGFYLLFFFERMLKMLLKTYGQ
NGHTHFGNDNFQEPQETHQPKALPAINGVTCYANPAVTEANGHIHFDNVSVVSLQDGKKEPSSCTCLKGPKLSEI
GTIAWMITLCDALHNFIDGLAIGASCTLSLLQGLSTSIAILCEEFPHELGDVILLNAGMSTRQALLFNFLSACS
CYVGLAFGILVGNNFAPNIIIFALAGGMFLYISLADMFPPEMNDMLREKVTGRKTDFTFFMIQNAGMLTGFTAILLI
TLYAGEIELE

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FIGURE 644

GGGGCTACCGCGCCTTTGCTTCCTGGCGCACGCGGAGCCTCCTGGAGCCTGCCACCATCCTGCCTACTACGTGCT
GCCCTGCGCCCGCAGCC**ATGT**GCCGCACCCCTGGCCGCCTTCCCCACCACCTGCCTGGAGAGAGCCAAAGAGTTCA
AGACACGTCTGGGGATCTTTCTTCACAAATCAGAGCTGGGCTGCGATACTGGGAGTACTGGCAAGTCCGAGTGGG
GCAGTAAACACAGCAAAGAGAATAGAAACTTCTCAGAAGATGTGCTGGGGTGGAGAGAGTCGTTTCGACCTGCTGC
TGAGCAGTAAAAATGGAGTGGCTGCCTTCCACGCTTTCCTGAAGACAGAGTTTCAGTGAGGAGAACCTGGAGTTCT
GGCTGGCCTGTGAGGAGTTCAAGAAGATCCGATCAGCTACCAAGCTGGCCTCCAGGGCACACCAGATCTTTGAGG
AGTTCAATTTGCAGTGAGGCCCTAAAGAGGTCAACATTGACCATGAGACCCGCGAGCTGACGAGGATGAACCTGC
AGACTGCCACAGCCACATGCTTTGATGCGGCTCAGGGGAAGACACGTACCCTGATGGAGAAGGACTCCTACCCAC
GCTTCCTGAAGTCGCTGCTTACCGGGACCTGGCTGCCCAAGCCTCAGCCGCCCTTGCCACTCTGTCCAGCTGCA
GCCTGGACGAGCCCTCACACACC**TGAG**TCTCCACGGCAGTGAGGAAGCCAGCCGGGAAGAGAGGTTGAGTCACCC
ATCCCCGAGGTGGCTGCCCCCTGTGTGGGAGGCAGGTTCTGCAAAGCAAGTGCAAGAGGACAAAAAAAAAAAAA
AAAAAAAAAATGCGCTCCAGCAGCCTGTTTGGGAAGCAGCAGTCTCTCCTTCAGATACTGTGGGACTCATGCTG
GAGAGGAGCCGCCCACTTCCAGGACCTGTGAATAAGGGCTAATGATGAGGGTTGGTGGGGCTCTCTGTGGGGCAA
AAAGGTGGTATGGGGGTTAGCACTGGCTCTCGTTCTCACC GGAGAAGGAAGTGTCTAGTGTGGTTTAGGAAACA
TGTGGATAAAGGGAACCATGAAAAATGAGAGGAGGAAAGACATCCAGATCAGCTGTTTTGCCGTGTGCTCAGTTGA
CTCTGATTGCATCCTGTTTTCTTAATTTCCAGACTGTTCTGGGCACGGAAGGGACCCTGGATGTGGAGTCTTCCC
CTTTGGCCCTCCTCACTGGCCTCTGGGCTAGCCAGAGTCCCTTAGCTTGTACCTCGTAACACTCCTGTGTGTCT
GTCCAGCCTTGCAGTCATGTCAAGGCCAGCAAGCTGATGTGACTCTTGCCCCATGCGAGATATTTATACCTCAA
CACTGGCCTGTGAGCCCTTTCCAAGTCAGTGGAGAGCCCTGAAAGGAGGCTCACTTGAATCCAGCTCAGTGCTCT
GGGTGGCCCCCTGCAGGTGGCCCCCTGACCCTGCGTTGCAGCAGGGTCCACCTGTGAGCAGGCCCGCCCTGGGGCC
TCTTCTGGATGTGCCCTCTCTGAGTTCGTGTCTGTCTCTTGAGGACAGGGCCAGGAGAACAAAGTGTGGAGGC
CTCGGGGAGTGGCTTTTCCAGCTCTCATGCCCCGAGTGTGGAACAAGGCAGAAAAGGATCCTAGGAAATAAGTC
TCTTGGCGGTCCCTGAGAGTCTGCTGAAATCCAGCCAGTGTTTTTTGTGGTATGAGAACAGGCAAAAAGAGATG
CCCCGAGATAGAAGGGGAGCCTTGTGTTTTCTTCTGCAGACGTGAGATGAACACTGGAGTGGGCAGAGGTGGCM
CAGGACCATGGCACCCCTAGAGTGCAGAAGCTGGGGGGAGAGGCTGCTTCGAAGGGCAGGACTGGGGATACCTGC
CTGTACCTCAGGGCATCACTGAACAAACATTTCTGATGGSAACTCCTGCGGCAGAGCCCAGGCTGGGGAAGTG
AACTACCCAGGGCAGCCCCCTTTGTGGCCCAGGATAATCAACACTGTTCTCTCTGTACCATGAGCTCCTCCAGGAG
ATTATTTAAGTGTATTGTATCATTGGTTTTCTGTGATTGTGATAACATTGTTTTTGTATTGTTGGTGCTGTTGT
TATTTATTATTGTAATTTCAGTTTGCCTCTACTGGAGAATCTCAGCAGGGGTTTCAGCCTGACTGTCTCCCTTTC
TCTACCAGACTCTACCTCTGAATGTGCTGGGAACCTCTTGAGCCTGTGAGGAACCTCACTGTTTAAATATTT
ATTTATTGTGACAAATGGAGCTGGTTTCCTAGATATGAATGATGTTTGCAATCCCCATTTTCTGTTTCAGCATG
TTATATTCTTATAAAATAAAAGCAAAAGTCAAATATGAAAAAAAAAAAAAAAAAAAAA

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FIGURE 645

MCRTLAAFPTTCLERAKEFKTRLGIFLHKSELGCDTGSTGKSEWGSKHSKENRNFSEDVLGWRESFDLLLSSKNG
VAAFHAFKTEFSEENLEFWLACEEFKKIRSATKLASRAHQIFEEFICSEAPKEVNIDHETRELTRMNLQTATAT
CFDAAQGKTRTLMEKDSYPRFLKSPAYRDLAAQASAASATLSSCSLDEPSHT

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FIGURE 646

GGGGCTACCGCGCCTTTGCTTCCTGGCGCACGCGGAGCCTCCTGGAGCCTGCCACCATCCTGCCTACTACGTGCT
GCCCTGCGCCCGCAGCCATGTGCCGCACCCTGGCCGCCTTCCCCACCACCTGCCTGGAGAGAGCCAAAGAGTTCA
AGACACGTCTGGGGATCTTTCTTCACAAATCAGAGCTGGGCTGCGATACTGGGAGTACTGGCAAGTCCGAGTGGG
GCAGTAAACACAGCAAAGAGAATAGAACTTCTCAGAAGATGTGCTGGGGTGGAGAGAGTCGTTTCGACCTGCTGC
TGAGCAGTAAAAATGGAGTGGCTGCCTTCCACGCTTTCTGAAGACAGAGTTCAGTGAGGAGAACCTGGAGTTCT
GGCTGGCCTGTGAGGAGTTCAAGAAGATCCGATCAGCTACCAAGCTGGCCTCCAGGGCACACCAGATCTTTGAGG
AGTTCAATTTGCAGTGAGGCCCTAAAGAGGTCAACATTGACCATGAGACCCGCGAGCTGACGAGGATGAACCTGC
AGACTGCCACAGCCACATGCTTTGATGCGGCTCAGGGGAAGACACGTACCCTGATGGAGAAGGACTCCTACCCAC
GCTTCCTGAAGTCGCCTGCTTACCGGGACCTGGCTGCCCAAGCCTCAGCCGCCCTCTGCCACTCTGTCCAGCTGCA
GCCTGGACGAGCCCTCACACACCTGAGTCTCCACGGCAGTGAGGAAGCCAGCCGGGAAGAGAGGTTGAGTCACCC
ATCCCCGAGGTGGCTGCCCCGTGTGTTGGGAGGCAGGTTCTGCAAAGCAAGTGCAAGAGGACAAAAAAAAAAAAA
AAAAAAAAAAATGCGCTCCAGCAGCCTGTTTGGGAAGCAGCAGTCTCTCCTTCAGATACTGTGGGACTCATGCTG
GAGAGGAGCCGCCCCACTTCCAGGACCTGTGAATAAGGGCTAATGATGAGGGTTGGTGGGGCTCTCTGTGGGGCAA
AAAGGTGGTATGGGGGTTAGCACTGGCTCTCGTTCTCACCGGAGAAGGAAGTGTCTAGTGTGGTTTAGGAAACA
TGTGGATAAAGGGAACCATGAAAATGAGAGGAGGAAAGACATCCAGATCAGCTGTTTTGCCTGTTGCTCAGTTGA
CTCTGATTGCATCCTGTTTTCTTAATTCACAGACTGTTCTGGGCACGGAAGGGACCCTGGATGTGGAGTCTTCCC
CTTTGGCCCTCCTCACTGGCCTCTGGGCTAGCCAGAGTCCCTTAGCTTGTACCTCGTAACACTCCTGTGTGTCT
GTCCAGCCTTGCAATCATGTCAAGGCCAGCAAGCTGATGTGACTCTTGCCCCATGCGAGATATTTATACCTCAA
CACTGGCCTGTGAGCCCTTTCCAAGTCAGTGGAGAGCCCTGAAAGGAGGCTCACTTGAATCCAGCTCAGTGCTCT
GGGTGGCCCCCTGCAGGTGGCCCCTGACCCTGCGTTGCAGCAGGGTCCACCTGTGAGCAGGCCCGCCCTGGGGCC
TCTTCCTGGATGTGCCCTCTCTGAGTTCTGTGCTGTCTCTTGAGGCAGGGCCCAGGAGAACAAAGTGTGGAGGC
CTCGGGGAGTGGCTTTTCCAGCTCTCATGCCCCGAGTGTGGAACAAGGCAGAAAAGGATCCTAGGAAATAAGTC
TCTTGGCGGTCCCTGAGAGTCCTGCTGAAATCCAGCCAGTGTTTTTGTGGTATGAGAACAGGCAAAAAGAGATG
CCCCGAGATAGAAGGGGAGCCTTGTGTTTTCTTCTGCAGACGTGAGATGAACACTGGAGTGGGCAGAGGTGGCM
CAGGACCATGGCACCCCTTAGAGTGCAGAAGCTGGGGGAGAGGCTGCTTCGAAGGGCAGGACTGGGGATACCTGC
CTGTACCTCAGGGCATCACTGAACAAACATTTCTGATGGSAACTCCTGCGGCAGAGCCCAGGCTGGGGAAGTG
AACTACCCAGGGCAGCCCCCTTTGTGGCCCAGGATAATCAACACTGTTCTCTGTACCATGAGCTCCTCCAGGAG
ATTATTTAAGTGATTGTATCATTGGTTTTCTGTGATTGTGATAACATTGTTTTTGTATTGTTGGTGCTGTTGT
TATTTATTATTGTAATTTAGTTTGCTCTACTGGAGAATCTCAGCAGGGGTTTCAGCCTGACTGTCTCCCTTTC
TCTACCAGACTCTACCTCTGAATGTGCTGGGAACCTCTTGAGCCTGTCAGGAACCTCCTCACTGTTTAAATATTT
ATTTATTGTGACAAATGGAGCTGGTTTTCTAGATATGAATGATGTTTGAATCCCCATTTTCTGTTTCAGCATG
TTATATTCTTATAAAATAAAAGCAAAAGTCAAATATGAAAAAAAAAAAAAAAAAAAAA

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FIGURE 647

MCRTLAAFPPTCLERAKEFKTRLGIFLHKSELGCDTGSTGKSEWGSKHSKENRNFSEDVLGWRESFDLLLSSKNG
VAAFHAFKTEFSEENLEFWLACEEFKKIRSATKLASRAHQIFEEFICSEAPKEVNIDHETRELTRMNLQTATAT
CFDAAQGKTRTLMKDSYPRFLKSPAYRDLAAQASAASATLSSCSLDEPSHT

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FIGURE 648

GAGCCCAGCCGAGCGTCCGCCGCTGCCCGTGCCTCTGCGCTCCGCGCC**ATG**GCCGGCCTCAACTCCCTGGAGG
CGGTGAAACGCAAGATCCAGGCCCTGCAGCAGCAGGCGGACGAGGCGGAAGACCGCGCGCAGGGCCTGCAGCGGG
AGCTGGACGGCGAGCGCGAGCGGGCGGAGAAAGCTGAAGGTGATGTGGCCGCCCTCAACCGACGCATCCAGCTCG
TTGAGGAGGAGTTGGACAGGGCTCAGGAACGACTGGCCACGGCCCTGCAGAAGCTGGAGGAGGCAGAAAAAGCTG
CAGATGAGAGTGAGAGAGGAATGAAGGTGATAGAAAACCGGGCCATGAAGGATGAGGAGAAGATGGAGATTCAGG
AGATGCAGCTCAAAGAGGCCAAGCACATTGCGGAAGAGGCTGACCGCAAATACGAGGAGGTAGCTCGTAAGCTGG
TCATCCTGGAGGGTGAGCTGGAGAGGGCAGAGGAGCGTGCGGAGGTGTCTGAACTAAAATGTGGTGACCTGGAAG
AAGAACTCAAGAATGTTACTAACAATCTGAAATCTCTGGAGGCTGCATCTGAAAAGTATTCTGAAAAGGAGGACA
AATATGAAGAAGAAATTAACTTCTGTCTGACAACTGAAAGAGGCTGAGACCCGTGCTGAATTTGCAGAGAGAA
CGGTTGCAAACTGGAAAAGACAATTGATGACCTGGAAGAGAACTTGCCAGGCCAAAGAAGAGAACGTGGGCT
TACATCAGACACTGGATCAGACACTAAACGAACTTAACTGTATAT**TAAG**CAAAACAGAAGAGTCTTGTTCACAG
AAACTCTGGAGCTCCGTGGGTCTTTCTCTTCTTGTAAGAAGTTCCTTTTGTTATTGCCATCTTCGCTTTGCTG
GAAATGTCAAGCAAATTATGAATACATGACCAAATATTTTGATCGGAGAAGCTTTGAGCACCAGTTAAATCTCA
TTCCTTCCCTTTTTTTTTTCAAATGGCACCAGCTTTTTCAGCTCTCTTATTTTTTCCTTAAGTAGCATTTATTCCT
AAGGTAGGCAGGGTATTTCTAGTAAGCATACTTTCTTAAGACGGAGGCCATTTGGTTCCCTGGGAGAATAGGCAG
CCCCACACTTTGAAGAATACAGACCCCAGTATCTAGTCGTGGATATAATTAAACGCTGAAGACCATAACCTTTT
GGGTCAACTGTTGGTCAAATATAGGAGAGACCAGGGACCATCACATGGGTAGGGATTTTCCATCCAGAGCCAAT
AAAAGGACTGGTGGGGGCCGGGGGTGGCTATTGTGGGAAGTCATAACCCACAGATAGATCAACCTAAGAATCCTG
GCCCTTCTCCACTCTCCACCATGCAGGACAAACATCTTCTCAAGCAGTCAACGTAGAATGCTTGGGAAATAGTCA
TAATTACCCACATATAGTAATTAATAGATGGTAATTAATTGATCCTTGATGTGATGTTCTTTGCATATTTCTT
CATTCTAAAGTTGTTCCCTGGCCGGGAGCGTTTGCTTTCGCTGTAATCCCAACACTTTGGGAGGCCAGGACAGA
TCACTTGAGGTCAGGAGTTCGAGACCAGCCCAGCCAACATGGCGAAACCATGTCTCTACTAAAAATACAAAAATT
ATGGTGACGCCTGCCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGAGGATCGCTTGAACCCAGGAAGTGGAG
ACTGCAGTGAGCCGATATCGCACCCACAGCGCTCCAGCCTGGTCGACAGAGTGAGACTCCATCTCAAGAAAAAATA
AAAAATAAGTTGTTCTCTGAAGAGCAAATGTCTCATTCCAGTAATGACCCACTCAGCAGGAATATGGTGGAGTTC
AGTCCAATTCAGGTCAGCCATATCCAAAAGACCACAAGTCATTACTAAGTTGAGCAAAAGAGTTTTTATCTATTA
GCAGAAAGGGCCTCTCTGGCAGCAGAGATTAAAAACTGGCCCACTTCATTTCCATACTTCAGGGAACAGCAAAT
TGAGGATTTACTTATCTAGGACTT

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FIGURE 649

MAGLNSLEAVKRKIQALQQQADEAEDRAQGLQRELDGERERREKAEGDVAALNRRIQLVEEELDRAQERLATALQ
KLEEAekaADESERGMKVIENTRAMKDEEKMEIQEMQLKEAKHIAEEADRKYEEVARKLVILEGELERAEEAEVS
ELKCGDLEEEELKNVTNNLKSLEAASEKYSEKEDKYEEEIKLLSDKLKEAETRAEFAERTVAKLEKTIDDLEEKLA
QAKEENVGLHQTLTDQTLNELNCI

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FIGURE 650

GTCTGCCGAGCTGTGAGGGCAACGGAGGGGAAATAAAAGGGAACGGCTCCGAATCTGCCCCAGCGGCCGCTGCG
AGACCTCGGCGCCGACATCGCGACAGCGAAGCGCTTTGCACGCCAGGAAGGTCCCCTCTATGTGCTGCTGAGCCG
GTCCTGGACGCGACGAGCCCCGCCCTCGGTCTTCGGAGCAGAAATCGCAAAAACGGAAGGACTGGAAATGGCAGAC
CATATGATGGCCATGAACCACGGGCGCTTCCCCGACGGCACCAATGGGCTGCACCATCACCTGCCACCGCATG
GGCATGGGGCAGTTCCCGAGCCCCCATCACCACCAGCAGCAGCAGCCCCAGCACGCCTTCAACGCCCTAATGGGC
GAGCACATACTACTACGGCGCGGGCAACATGAATGCCACGAGCGGCATCAGGCATGCGATGGGGCCGGGGACTGTG
AACGGAGGGCACCCCCGAGCGCGCTGGCCCCCGGGCCAGGTTTAAACAACCTCCAGTTTATGGGTCCCCCGGTG
GCCAGCCAGGGAGGCTCCCTGCCGGCCAGCATGCAGCTGCAGAAGCTCAACAACCAAGTATTTCAACCATCACCCC
TACCCCCACAACCACTACATGCCGGATTTGCACCCTGCTGCAGGCCACCAGATGAACGGGACAAACCAGCACTTC
CGAGATTGCAACCCCAAGCACAGCGGCGGCAGCAGCACCCCCGGCGGCTCGGGCGGCAGCAGCACCCCCGGCGGC
TCTGGCAGCAGCTCGGGCGGCGGCGCGGCAGCAGCAACAGCGGCGGCGGCAGCGGCAGCGGCAACATGCCCGCC
TCCGTGGCCACGTCCCCGCTGCAATGCTGCCGCCAATGTCTATAGACACTGATTTTCATCGACGAGGAAGTTCTT
ATGTCCTTGGTGATAGAAATGGGTTTGGACCGCATCAAGGAGCTGCCCGAATCTGGCTGGGGCAAAACGAGTTT
GATTTTATGACGGACTTCGTGTGCAAACAGCAGCCAGCAGAGTGAGCTGTTGACTCGATCGAAACCCCGGCGAA
AGAAATCAAACCCCCAATCTTTCGGCGTGAAATTAAGAAACATTCCCTTAGACACAGTATCTCACTTTTCAGA
TCTTGAAAGGTTTGAGAACTTGGAACAAAGTAACTATAAACTTGTACAAATTGGTTTTTAAAAAAATTGCTGC
CACTTTTTTTTCCGTGTTTTTGTTCGTTTTTGTAGCCTTGACATTCACCCACCTCCCTTATGTAGTTGAAATATC
TAGCTAACTTGGTCTTTTTTCGTTGTTTGTACTCCTTTCCCTCACTTTCTCCAGTGCTCAACTGTTAGATAT
TAATCTTGGCAAACCTGCTTAATCTTGTGGATTTTGTAGATGGTTTTCAAATGACTGAACTGCATTTCAGATTTACGA
GTGAAAGGAAAAATTGCATTAGTTGGTTGCATGAACCTTTGAAGGGCAGATATTACTGCACAACTGCCATCTCGC
TTCATTTTTTTTAACTATGCATTTGAGTACAGACTAATTTTTTAAATATGCTAACTGGAAGATTAAACAGATGTG
GCCCCAACTGTTCTGGATCAGGAAAGTCATACTGTTCACTTTCAAGTTGGCTGTCCCCCGCGCCCCCCCCCA
CCCCCATATGTACAGATGATAATAGGGTGTGGAATGTCGTCAGTGGCAAACATTTACAGATTATTTTGTTCCTG
TCTTCAACATTTTGTACACTGTGCTAATAGTTATATTAGTACATGAAAAGATACTACTGTGTTGAAAGCCTTTT
AGGAAATTTTGTACAGTATTTTGTACAAAACATTTTTTTGAAAAAATACTTGTTAATTTATTCTATTTTAATTG
CCAATGTCAATAAAAAGTTAAGAAATAAAAAAAAAAAAAAAAAA

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FIGURE 651

MADHMMAMNHGRFPDGTNGLHHHPAHRMGMGQFPSPHHHQQQQPQHAFNALMGEHIHYGAGNMNATSGIRHAMGP
GTVNGGHPPSALAPAARFNN SQFMGPPVASQGGSLPASMQLQKLNNQYFNHHPYPHNHYMPDLHPAAGHQMN GTN
QHFRDCNPKHSGGSSTPGGSGGSSTPGGSGSSSGGGAGSSNSGGGSGSGNMPASVAHVPAAMLPPNVIDTDFIDE
EVLMSLVIEMGLDRIKELPELWLGQNEFDFMTDFVCKQQPSRVSC

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FIGURE 652

AATCGCGAAACCCGGCGAGCGGCGCGCTGGCTATCGAGCGAGCGGGGCGGAACCGGGAGTTGCGCCGCCGCTCGG
GCGCCGGGCTCCGTCGCGGCCGCGAGCCCCGCGGGTTCGCCCTCCCGTGCTCGCCCGCGGACACCCTGGCCGTGGA
CACCCTGGCCGTGGGCACCCGCGGGGCGCGGGCGGGCGCTGCGCGGCGGCGGCGGGCGGCGG**ATGA**AGGTCACGTCTG
CTCGACGGGCGCCAGCTGCGCAAGATGCTCCGCAAGGAGGCGGGCGGCGCTGCGTGGTGCTCGACTGCCGGCCC
TATCTGGCCTTCGCTGCCTCGAACGTGCGCGGCTCGCTCAACGTCAACCTCAACTCGGTGGTGCTGCGGCGGGCC
CGGGGCGGCGCGGTGTCGGCGCGCTACGTGCTGCCGACGAGGCGGCGCGCGCGCGGCTCCTGCAGGAGGGCGGC
GGCGGCGTCGCGGCCGTGGTGCTGGACCAGGGCAGCCGCCACTGGCAGAAGCTGCGAGAGGAGAGCGCCGCG
CGTGTGCTCCTCACCTCGCTACTCGCTTGCCCTACCCGCCGGCCCGGGTCTACTTCCTCAAAGGGGGATATGAG
ACTTTCTACTCGGAATATCCTGAGTGTTGCGTGGATGTAAAACCCATTTCACAAGAGAAGATTGAGAGTGAGAGA
GCCCTCATCAGCCAGTGTTGGAACACAGTGGTAAATGTCAGCTACAGGCCAGCTTATGACCAGGGTGGCCAGTT
GAAATCCTTCCCTTCTCTACCTTGGAAGTGCTTACCATGCATCCAAGTGCGAGTTCTCGCCAACTTGCACATC
ACAGCCCTGCTGAATGTCTCCCGACGGACCTCCGAGGCCTGCATGACCCACCTACACTACAAATGGATCCCTGTG
GAAGACAGCCACACGGCTGACATTAGCTCCCACTTTCAAGAAGCAATAGACTTCATTGACTGTGTGAGGAAAAG
GGAGGCAAGGTCTTGGTCCACTGTGAGGCTGGGATCTCCCGTTACCCACCATCTGCATGGCTTACCTTATGAAG
ACCAAGCAGTTCCCGCTGAAGGAGGCCTTCGATTACATCAAGCAGAGGAGGAGCATGGTCTCGCCCAACTTTGGC
TTCATGGGCCAGCTCCTGCACTACGAATCTGAGATCCTGCCCTCCACGCCCAACCCCCAGCCTCCCTCCTGCCAA
GGGGAGGCAGCAGGCTCTTCACTGATAGGCCATTTGCAGACACTGAGCCCTGACATGCAGGGTGCCTACTGCACA
TTCCTTGCCTCGGTGCTGGCACCGGTGCCTACCCACTCAACAGTCTCAGAGCTCAGCAGAAGCCCTGTGGCAACG
GCCACATCCTGCT**TAA**AACTGGGATGGAGGAATCGGCCCAGCCCCAAGAGCAACTGTGATTTTTTGTTTTTAAGACT
CATGGACATTTATACCTGTGCAATACTGAAGACCTCATTCTGTGCTGCTGCCCCAGTGAGATAGTGAGTGGTCA
CCAGGCTTGCAAATGAACCTCAGACGGACCTCAGGGTAGGTTCTCGGGACTGAAGGAAGGCCAAGCCATTACGGG
AGCACAGCATGTGCTGACTACTGTACTTCCAGACCCCTGCCCTCTGGGACTGCCCAGTCCTTGCACCTCAGAGT
TCGCCTTTTCATTTCAAGCATAAGCCAATAAATACCTGCAGCAACGTGGGAGAAAGAAGTTGCTGGACCAGGAGA
AAAGGCAGTTATGAAGCCAATTCAATTTGAAGGAAGCACAAATTTCCACCTTATTTTTTGAACCTTGGCAGTTTCA
ATGTCTGTCTCTGTTGCTTCGGGGCATAAGCTGATCACCGTCTAGTTGGGAAAGTCACCCTACAGGGTTTGTAGG
GACATGATCAGCATCCTGATTTGAACCCTGAAATGTTGTGTAGACACCCCTTGGGTCCAATGAGGTAGTTGGTT
GAAGTAGCAAGATGTTGGCTTTTCTGGATTTTTTTTGCCATGGGTCTTCACTGACCTTGGACTTTGGCATGATT
CTTAGTCATACTTGAACCTTGTCTCATTCCACCTCTTCTCAGAGCAACTCTTCCTTTGGGAAAAGAGTTCTTCAGA
TCATAGACCAAAAAAGTCATACCTTCGAGGTGGTAGCAGTAGATTCCAGGAGGAGAAGGGTACTTGCTAGGTATC
CTGGGTCAGTGGCGGTGCAAACCTGGTTTCCTCAGCTGCCTGTCTTCTGTGTGCTTATGTCTCTTGTGACAATTG
TTTTCTCCCTGCCCTGGAGGTTGTCTTCAACTGTGGACTTCTGGGATTTGCAGATTTTGCAACGTGGTACTAC
TTTTTTTTCTTTTTGTCTGTTAGTTATTTCTCAGGGGAAAAGGCAATAATTTCTAAGACCCGTGTGAATGTGA
AGAAAAGCAGTATGTTACTGGTTGTTGTTGTTGTTCTTGTTTTTTATATGTAAAATAAAAAATAGTGAAAGGAG

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FIGURE 653

MKVTSLDGRQLRKMLRKEAAARCVVLD CRPYLAFAASNVRGSLNVNLNSVVLRRARGGAVSARYVLPDEAARARL
LQEGGGGVA AVVLDQGSRHWQKLREESAARVLTSLLA CLPAGPRVYFLKGGYETFYSEYPECCVDVKPISQEK
IESERALISQCGKPVVNVSYR PAYDQGGPVEILPFLYLGSAYHASKCEFLANLHITALLNVSRRITSEACMTHLY
KWIPVEDSHTADISSHFQE AIDFIDCVREKGGKVLVHCEAGISRPTICMAYLMKTKQFRLKEAFDYIKQRRSMV
SPNFGFMGQLLQYESEILPSTPNPQPPSCQGEAAGSSLIGHLQTLSPDMQGAYCTFPASVLAPVPTHSTVSELSR
SPVATATSC

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FIGURE 654

GGCACGAGGAAGCTACTCAGATAAGAGGCTCCAAGAGGACATTTTTGGATGTGAAAAACAATGAGAAGGAGGACA
ACACACATTTACAATCGTCTTAATTTTGTACTCAGAAAAAGGATGTGAAGACAATGCACAGGGAATACAATAGTT
TCAGATCTGTGTACAGTTTCCTTTTGCTTCATCTCCTGCAACAATGTAATGAAGACACCATGATAICATTAACAT
TTCACACAAAAGGAAAAATGAGGCTGAAATGGTGTGGGCAAGGCCAGGAATCTGGAGCATCCCTAACCAAGCAGC
AGAGCACCTGGGATAGAGAAAGTGCTCAAGAATGTTCACTTACTGATTACTACAATCAAAAAAGATACGACACT
AATTTACCACATTCTTCTTACTTATTTTATGAGATACTATTCTTCCAAGGTGGAGAAAGTGGAGAAAGTAGAGTG
ACGCAGCTAAGGGAGTAAATCGACCCTCAGCCAACAAGTGGCAAAAGCCTGAAGAAAGTGATCAAGATCACTGAT
GACCCCGCGGCCCATCTCCAAGGGGGCGGGTATCACAACCCCGACGCCACACCACGTATCATTCCGCAAACTCC
CGCGCCTCCACGCAGAACTGGCAAGAGGGAAGGCGAGACAGCAGTGAACAGCTGGTACGCAGCACCCACAGCAC
CGCGGCAGCAGCTAGTGCCGACTCCCGCCTAGCTCTTTTGACTCTGTTCGCGGGAAGAATGGGGAAACAGTAAGG
TTGCGGCGCCTCCCGCGAGACGAGGTACCTGAGGCTGGCCCCGAGTCCCCCGCCGACCAGCACCGGAGCTTCA
CACCCCACTTCCGGGGTCAAGTCACCGCCGGAATCCTGTGATCGCAGAAAGGTAGTCTCAGGTTCCGCCCCAT
CCAAGTCCCGCCTCCACTGCCTCTCGCCCTGTATCTGTCAACTTCCGGGACGCCGCGCGTCACTAAGCAGCCAAT
CTCCACTTCCGGACTCATCCAGCCCCCTTCTCCACCCCTTTTTCAGAGACAGCGCGATTGCGATTTAGGTTTCCGCGC
ATTTAATTGGCGAAGCTGGAGCGCTAGTCTTCGCTGATTGGTGCCGAGAAATCTGCCCCATAGACACCCGCGGGG
CGCACAGTTTCAGTCGTCCGTGGGTTTCCCGCCAGCCGAGTCTTGGACCATAATCATGTTGGACATGATGGACT
TGCCAGGTCGCGCATCAACGCCGGCATGCTAGCTCAATTCATCGACAAGCCTGTCTGCTTCGTAGGGAGGCTGG
AAAAGATTATCCACCGGAAAAATGTTTATTCTTTCAGATGGAGAAGGAAAAAATGGAACCATCGAGTTGATGG
AACCCCTTGATGAAGAAATCTCTGGAATTGTGGAAGTGGTTGGAAGAGTAACCGCCAAGGCCACCATCTTGTGTA
CATCTTATGTCCAGTTTAAAGAAGATAGCCATCCTTTTGATCTTGGACTTTACAATGAAGCTGTGAAAATTATCC
ATGACTTCCCTCAGTTTTATCCTTTAGGGATTGTGCAACATGATTGATCTTGATGGATTTTCATACGATTGTAAA
TGAGCTATATTAAAGTCTATTAAAGGAAAAAAAAAAAAAAAAAAAAA

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FIGURE 655

MVDMMDLPRSRINAGMLAQFIDKPVCFVGRLEKIHPTGKMFILSDGEGKNGTIELMEPLDEEISGIVEVVGRVTA
KATILCTSYVQFKEDSHPFDLGLYNEAVKIIHDFPQFYPLGIVQHD

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FIGURE 656

AGCCGCCGCTCGCCGCTTCCCCTCGTCGGAGCGGCCGCTCGTCCGCCCGGCTTGAGGCCCGCGGGGAGCGCGGC
GCAATTCGTCGGCCCCGCGGGGGGCGGCCTCCCGGCATCTTCGCGGCGACCAAGGACTACCAGGAAGGGGAGCGG
CTGGGATGGCGCGTCCGCGGCCCGCGAGTACAAAGCGGGCGACCTGGTCTTCGCCAAGATGAAGGGCTACCCGC
ACTGGCCGGCCCGGATTGATGAACTCCAGAGGGCGCTGTGAAGCCTCCAGCAAACAAGTATCCTATCTTCTTTT
TTGGCACCCATGAAACTGCATTTCTAGGTCCCAAGACCTTTTTCATATAAGGAGTACAAAGACAAGTTTGAA
AGTCAAACAAACGGAAGGATTTAACGAAGGATTGTGGGAAATAGAAAATAACCCAGGAGTAAAGTTTACTGGCT
ACCAGGCAATTCAGCAACAGAGCTCTTCAGAACTGAGGGAGAAGGTGGAAATACTGCAGATGCAAGCAGTGAGG
AAGAAGGTGATAGAGTAGAAGAAGATGGAAAAGGCAAAAGAAAGAATGAAAAAGCAGGCTCAAAACGGAAAAAGT
CATATACTTCAAAGAAATCCTCTAAACAGTCCCGGAAATCTCCAGGAGATGAAGATGACAAAGACTGCAAAGAAG
AGGAAAAACAAAGCAGCTCTGAGGGTGGAGATGCGGGCAACGACACAAGAAACACAACCTTCAGACTTGCAGAAAA
CCAGTGAAGGGACCTAACTACCATAATGAATGCTGCATATTAAGAGAAACCACAAGAAGGTTATATGTTTGGTTG
TCTAATATTCTTGATTGATATGAACCAACACATAGTCCTTGTGTGTCATTGACAGAACCCCAAGTTTGTATGTAC
ATTATTCATATTCTCTCTGTGTGTTTTCGGGGGGAAAAGACATTTTAGCCTTTTTTAAAAGTTACTGATTTAAT
TTCATGTTATTTGGTTGCATGAAGTTGCCCTTAACCACTAAGGATTATCAAGATTTTTCGCGCAGACTTATACATG
TCTAGGATCCTTTTATCAAGGCAGTTATGATCATCGTTTTCTGCCTTGACCCCAACCATCATCAAACACTCAGTT
AAATATAAATTAACATTTTTTTAGATGACCACTCAACATAATGCTTAAGAATGGAATTTCTCTCTGTGACAGAAC
CCAGGAATTAATTCCTAAATACATAACGTTGGTATATTGAAGACGAAATTAATTTGTCCTTCAGTTTTGAGGCC
ATGTGTAAAGTTTAACCATATTGTAAAATATCTATTCCGTATTAGAAATAGCTAGTTGACAGCTTATACTTCTCA
AAATTCATATTGTTATGTACACAACTAAGTTTCTATATGTGAAGTTAGTGAGTCTTTTTGTGTTACTCCAAAT
AAAGGCAATGATTTATTTTTTTCCAGTGCCAATACAATTTTGAGCTAAGCACTCAAGGTGGATACTTTACATTT
TAAAGCTGGAATCAGCAACAGCCCTATGGGAAACCAGACAAAGCATTGACTTTTAAATGTAGACTTTTAAATAA
ACTGTTTTCTTTGGAACACTACAATTAGAATAGTTAATATTCATCCTTAAACCATTATTATGTGTACATTATTGTT
GCTATTGTGATAATAGAGAATTTTATTTATTTTATGCCAGCTTATATTGTGAGAACACATTTAGTCAGTTTGGG
TTTTATCAATCCTGTTAATGCTTGTCTTGGACATCTTTCGCGTATTCACGGTTTGTAGTTGAAAAGTTTACTG
TAAAAAATCAAAAACAAAAAATGTATTGTTTTTACAGAATAAATTTATTGGGATGTGTACTGGGAGTAAGATT
TGAGGTTGTAAGCAAATAAGTTAGTGTAATTTGGCTTCATATATGTAACGTGAGGTATTAATGTAATTCATATA
TTAAAGCAAAAATTTGTTTCGCAGC

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FIGURE 657

MARPRPREYKAGDLVFAKMGYPHWPARIDELPEGAVKPPANKYPIFFFGTHETAFLGPKDLFPYKEYKDKFGKS
NKRKGFNEGLWEIENNPVGKFTGYQAIQQSSSETEGEGGNTADASSEEEGDRVEEDGKGKRKNEKAGSKRKKS
TSKKSSKQSRKSPGDEDDKDCKEEENKSSSEGGDAGNDTRNTTSDLQKTSEGT

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FIGURE 658

AGCCGCCGCTCGCCGCTTCCCTCGTCGGAGCGGCCGCTCGTCCGCCCGGCTTGAGGCCCGCGGGGAGCGCGGC
GCAATTCGTCGGCCCGCGGGGGGCGGCCTCCCGCATCTTCGCGGCGACCAAGGACTACCAGGAAGGGGAGCGG
CTGGGATGCGCGTCCGCGGCCCGCGAGTACAAAGCGGGCGACCTGGTCTTCGCCAAGATGAAGGGCTACCCGC
ACTGGCCGGCCCGGATTGATGAACTCCAGAGGGCGCTGTGAAGCCTCCAGCAAACAAGTATCCTATCTTCTTTT
TTGGCACCCATGAAACTGCATTTCTAGGTCCCAAAGACCTTTTTCCATATAAGGAGTACAAAGACAAGTTTGAA
AGTCAAACAAACGGAAAGGATTTAACGAAGGATTGTGGGAAATAGAAAATAACCCAGGAGTAAAGTTTACTGGCT
ACCAGGCAATTCAGCAACAGAGCTCTTCAGAACTGAGGGAGAAGGTGGAAATACTGCAGATGCAAGCAGTGAGG
AAGAAGGTGATAGAGTAGAAGAAGATGGAAAAGGCAAAAGAAAGAAATGAAAAAGCAGGCTCAAAACGGAAAAAGT
CATATACTTCAAAGAAATCCTCTAAACAGTCCCGGAAATCTCCAGGAGATGAAGATGACAAAGACTGCAAAGAAG
AGGAAAAACAAAGCAGCTCTGAGGGTGGAGATGCGGGCAACGACACAAGAAACACAACCTTCAGACTTGAGAAAA
CCAGTGAAGGGACCTAACTACCATAATGAATGCTGCATATTAAGAGAAACCACAAGAAGGTTATATGTTTGGTTG
TCTAATATTCTTGATTGTGATATGAACCAACACATAGTCCTTGTGTGTCATTGACAGAACCCCAAGTTTGTATGTAC
ATTATTCATATTCTCTCTGTTGTGTTTTCGGGGGGAAAGACATTTTAGCCTTTTTTAAAAGTTACTGATTTAAT
TTCATGTTATTTGGTTGCATGAAGTTGCCCTTAACCACTAAGGATTATCAAGATTTTTGCGCAGACTTATACATG
TCTAGGATCCTTTTATCAAGGCAGTTATGATCATCGTTTTCTGCCTTGACCCCAACCATCATCAAACACTCAGTT
AAATATAAATTAACATTTTTTAGATGACCACTCAACATAATGCTTAAGAATGGAATTCCTCTCTGTGACAGAAC
CCAGGAATTAATTCCTAAATACATAACGTTGGTATATTGAAGACGAAATTTAAATTTGTCCTTCAGTTTTGAGGCC
ATGTGTAAAGTTTAACCATATTGTAAAATATCTATTCCGTATTAGAAATAGCTAGTTGACAGCTTATACTTCTCA
AAATTCATATTGTTATGTACACAACTAAGTTTCTATATGTGAAGTTAGTGAGTCTTTTTGTGTTACTCCAAAT
AAAGGCAATGATTTATTTTTTTCCAGTGCCAATACAATTTGAGCTAAGCACTCAAGGTGGATACTTTACATTT
TAAAGCTGGAATCAGCAACAGCCCTATGGGAAACCAGACAAAGCATTGACTTTTAAATGTAGACTTTTAAATAA
ACTGTTTTCTTTTGGAACTACAATTAGAATAGTTAATATTCATCCTTAAACCATTATTATGTGTACATTATTGTT
GCTATTGTGATAATAGAGAATTTTATTTATTTTTATGCCAGCTTATATTGTGAGAACACATTTAGTCAGTTTGGG
TTTTATCAATCCTGTTAATGCTTGTCTTGGACATCTTTCGCGTATTCACGGTTTGTAGTTGAAAAGTTTACTG
TAAAAAATCAAAAAACAAAAAATGTATTGTTTTTACAGAATAAATTTATTGGGATGTGTACTGGGAGTAAGATT
TGAGGTTGTAAGCAAACCTAAGTTAGTGTAATTTGGCTTCATATATGTAACGTGAGGTATTAATGTAATTCATATA
TTAAAGCAAAAATTGTTTCGCAGC

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FIGURE 659

MARPRPREYKAGDLVFAKMGYPHWPARIDELPEGAVKPPANKYPIFFFGTHETAFLGPKDLFPYKEYKDKFGKS
NKRKGFNEGLWEIENNPVGKFTGYQAIQQSSSETEGEGGNTADASSEEEGDRVEEDGKGKRKNEKAGSKRKKS
TSKKSSKQSRKSPGDEDDKDCKEEENKSSSEGGDAGNDTRNTTSDLQKTSEGT

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FIGURE 660A

CCGTTACGCGTTTCGGTCCTCCTTGGCTGACTACCGCCCTCGCCGCCGACCC**ATG**GACGCCCCAGGCAGGTGG
TCAACTTTGGGCCTGGTCCCGCCAAGCTGCCGCACTCAGTGTTGTTAGAGATACAAAAGGAATTATTAGACTACA
AAGGAGTTGGCATTAGTGTTCTTGAAATGAGTCACAGGTCATCAGATTTTGCCAAGATTATTAACAATACAGAGA
ATCTTGTGCGGGAATTGCTAGCTGTTCCAGACAATAAAGGTGATTTTTCTGCAAGGAGGTGGGTGCGGCCAGT
TCAGTGCTGTCCCCTTAAACCTCATTGGCTTGAAAGCAGGAAGGTGTGCTGACTATGTGGTGACAGGAGCTTGGT
CAGCTAAGGCCGAGAGAAGCCAAGAAGTTTGGGACTATAAATATCGTTCACCTTAACTTGGGAGTTATACAA
AAATTCCAGATCCAAGCACCTGGAACCTCAACCCAGATGCCTCCTACGTGTATTATTGCGCAAATGAGACGGTGC
ATGGTGTGGAGTTTGACTTTATACCCGATGTCAAGGGAGCAGTACTGGTTTGTGACATGTCCTCAAACCTCCTGT
CCAAGCCAGTGGATGTTTCCAAGTTTGGTGTGATTTTTGCTGGTGCCAGAGAATGTTGGCTCTGCTGGGGTCA
CCGTGGTGATTGTCCGTGATGACCTGCTGGGGTTTGCCTCCGAGAGTGCCCTCGGTCTTGGGAATACAAGGTGC
AGGCTGGAAACAGCTCCTTGTACAACACGCCTCCATGTTTACAGCATCTACGTGATGGGCTTGGTTCTGGAGTGA
TTAAAAACAATGGAGGTGCCGCGGCCATGGAGAAGCTTAGCTCCATCAAATCTCAAACAATTTATGAGATTATTG
ATAATTCTCAAGGATTCTACGTTTGTCCAGTGGAGCCCCAAAATAGAAGCAAGATGAATATTCCATTCCGCATTG
GCAATGCCAAAGGAGATGATGCTTTAGAAAAAGATTTCTTGATAAAGCTCTTGAACCTCAATATGTTGTCCTTGA
AAGGGCATAGGTCTGTGGGAGGCATCCGGGCCTCTCTGTATAATGCTGTGACAAATTGAAGACGTTTCAAGCTGG
CCGCCCTTCATGAAAAAATTTTTGGAGATGCATCAGCTAT**TGAA**CACATCCTAACCAGGATATACTCTGTTCTTGAA
CAACATACAAAGTTTAAAGTAACTTGGGGATGGCTACAAAAAGTTAACACAGTATTTTTCTCAAATGAACATGTT
TATTGCAGATTCTTCTTTTTTGAAAGAACAACAGCAAAACATCCACAACCTCTGTAAAGCTGGTGGGACCTAATGT
CACCTTAATTCTGACTTGAACTGGAAGCATTTTTAAGAAATCTTGTGCTTTTCTAACAAATTCGCCGATTTTTG
CCTTTGCTGCTACTTTTTCTAGTTAGATTTCAAACCTTGCTGTGGACTTAATAATGCAAGTTGCGATTAATTATT
TCTGGAGTCATGGGAACACACAGCACAGAGGGTAGGGGGGCCCTCTAGGTGCTGAATCTACACATCTGTGGGGTC
TCCTGGGTTTCACTGGCTGTTGATTCAAGGTCAACATTGACCATTGGAGGAGTGGTTTAAGAGTGCCAGGCGAAGG
GCAAACCTGTAGATCGATCTTTATGCTGTTATTACAGGAGAAGTGACATACTTTATATATGTTTATATTAGCAAGG
TCTGTTTTTAATACCATATACTTTATATTTCTATACATTTATATTTCTAATAATACAGTTATCACTGATATATGT
AGACACTTTTGAATTTATTAATCCTTGACCTTGTGCATTATAGCATTCCATTAGCAAGAGTTGTACCCCTCC
CCAGTCTTCGCCCTTCTCTTTTTTAAGCTGTTTTATGAAAAAGACCTAGAAGTTCTTGATTCATTTTTACCATTCT
TTCCATAGGTAGAAGAGAAAGTTGATTGGTTGGTTGTTTTTCAATTATGCCATTAAACTAAACATTTCTGTTAA
TTACCCATATCCTTTGTTCTCTACTGTTTTCTTTGTAATGTATGACTACGAGAGTGATACTTTGCTGAAAAGTCTT
TCCCCTATTGTTTATCTATTGTGAGTATTTTTATGTTGAATATGTAAAGAACATTAAAGTCTTAAACACGGTTCTA
AGCTAAGTGAAGGGGAAGATCTGAGAGCGTGCTGTTTGTGGCTGTTGATGCATATTCGTGATGTAACAGGTCTTG
GGGCCTCACTTTACCCCATTTGTAAATGGGGCTAATGTACCTGCCTCTTACCTACCTCAGAGGGATTTGGTGA
AGCAAACCTGTTAATCTTCGAAAACGACCATTTCACTTCTTGGATATCAAGTGCTAACCAGATGTTCTTCTTTT
TTATGTAAGGGACAGCTTTCTCCACAGAGTCCTTTCTGCTGGTGAGGACAGCATTCTGAGCAGGGCTTTGTTCT
CTATGTGCATTAGGACTTTTATCATGCCCTTGTCTGTGTGAGTTACTTGACAGCATCAAATGCCGCCTCTTCC
TAATGTCTTCAAGTTTTTCATGAAGTAGCAACCCACCTTCCACCATGGTTCTGGGCGCCTGATTTTGCTGTGAC
TCCCAGACCCAGCCACTGTTTCTGCCACCCTGTAACAGGCCATTAAAGCTCCCCAGTGTTACGCCTCCTTCACTC
CCTTGTTTTCCCTGTTGCTATGTGTACCTGGGCCCTACAGACAGGGGCACACGCTTATGGATGTGTGTACCATT
GAGATGAGAAATGGGTAGATGGAACGGAGACCATCAAGCCACACCCCTTCTTAAACTGGGGACATGAGCCTGAG
CAGAAAGGGTGAAGAAGAGCCATGGGACACAGAGTTGACCCAGCCAGGGGAAAGCCAGCTCTCTTTAAACCAG
CTAAGCCATTCCAGTCTCCTGTGAAGCCAAAAGGGACCAGGAACCGTGCAAAGGAACTGGAAACTTTTCCCCGC
TGGGTAGAGCATGTTGCTGATACTCTTCTGTTTTCAAGGGAAACAATCACATTGTTTGATTCCAAATGGTAAATG
AACACTCACTATTCTTCAGGCTTCAGTAAATCTTTTTTCTTCTCATATATATATACACAACACACACACACA
TATGTATATCTATACACACATGTGTGTTGTGTATATGCATGTGTGTGTGCGTGTGTGTATAGTTTTAGCTCCA
AGCCAAGCAAGTTTGTGTTTGGATAGAGGGGAACCTTAACTATTAACATAAGTTGTATGTCTGTGGTATCTTGAT
TTTCCCATTTCTAAAGATGAATTTACAAAGCCATAAAGCGTGAAATTAGAGCTGGACTTAAGACTCATTGGCCG
ACCATCCTGTGTCTTGGCCTGGCCCTGCAGTAAGAAGCGTGTCTGGGTCTGGAGAAGGGTGCTTCCGAGAGTGTG
CAGGTGGCCCTTCCCTTGGAGGCGAGAAGAGAGAATGTGCTGTCTATCTTCTGTTTTTCACTCCACAGAGTCG
GTAGACCAGGGGTTACGTGACTGGGGAAAATCTCACATCTCCTTGTCTGAAAACATTTCCCCTGCTGTTCTCTTT

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FIGURE 660B

CTAACATGTTGTGGTAAATCTGTTTCAGATACTGCTCATCTGACTGTTTTGTACATGTGACAATTGCCTTAAACC
TAGCACAGTCCTCAGAAATGAATACCGTGTTTCCACTGGAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 661

MDAPRQVVNFGPGPAKLPHSVLLEIQKELLDYKGVGISVLEMSHRSSDFAKIINNNTENLVRELLAVPDNYKVIFL
QGGGCGQFSAVPLNLIGLKAGRCADYVVTGAWSAKAAEEAKKFGTINIVHPKLGSYTKIPDPSTWNLNPDASYVY
YCANETVHGVEFDFIPDVKGAVLVCDMSSNFLSKPVDVSKFGVIFAGAQKNVGSAGVTVVIVRDDLLGFALRECP
SVLEYKVQAGNSSLYNTPPCFISIYVMGLVLEWIKNNGGAAAMEKLSSIKSQTIIYEIIDNSQGFYVCPVEPQNRSK
MNIPFRIGNAKGDDALEKRFLDKALELNMLSLKGHRSVGGIRASLYNAVTIEDVQKLAAFMKKFLEMHQL

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FIGURE 662

ACTTTCCTGCCCTTCCCCGGCCAAGCCCAACTCCGGATCTCGCTCTCCACCGGATCTCACCCGCCACACCCGGA
CAGGCGGCTGGAGGAGGCGGGCGTCTAAAATTCTGGGAAGCAGAACCTGGCCGGAGCCACTAGACAGAGCCGGGC
CTAGCCAGAGACATGGAGAGTTGCTACAACCCAGGTCTGGATGGTATTATTGAATATGATGATTTCAAATTGAA
CTCCTCCATTGTGGAACCCAAGGAGCCAGCCCCAGAAACAGCTGATGGCCCCTACCTGGTGATCGTGGAACAGCC
TAAGCAGAGAGGCTTCCGATTTTCGATATGGCTGTGAAGGCCCTCCCATGGAGGACTGCCCGGTGCCTCCAGTGA
GAAGGGCCGAAAGACCTATCCCACTGTCAAGATCTGTAACCTACGAGGGACCAGCCAAGATCGAGGTGGACCTGGT
AACACACAGTGACCCACCTCGTGCTCATGCCACAGTCTGGTGGGCAAGCAATGCTCGGAGCTGGGGATCTGCGC
CGTTTCTGTGGGGCCCAAGGACATGACTGCCCAATTTAACAACCTGGGTGTCCTGCATGTGACTAAGAAGAACAT
GATGGGGACTATGATACAAAACCTTCAGAGGCAGCGGCTCCGCTCTAGGCCCCAGGGCCTTACGGAGGCCGAGCA
GCGGGAGCTGGAGCAAGAGGCCAAGAAGTGAAGAAGGTGATGGATCTGAGTATAGTGCGGCTGCGCTTCTCTGC
CTTCCTTAGAGCCAGTGATGGCTCCTTCTCCCTGCCCTGAAGCCAGTCACCTCCCAGCCCATCCATGATAGCAA
ATCTCCGGGGGCATCAAACCTGAAGATTTCTCGAATGGACAAGACAGCAGGCTCTGTGCGGGGTGGAGATGAAGT
TTATCTGCTTTGTGACAAGGTGCAGAAAGATGACATTGAGGTTCCGTTCTATGAGGATGATGAGAATGGATGGCA
GGCCTTTGGGGACTTCTCTCCACAGATGTGCATAAACAGTATGCCATTGTGTTCCGGACACCCCCCTATCACAA
GATGAAGATTGAGCGGCCTGTAACAGTGTTTCTGCAACTGAAACGCAAGCGAGGAGGGGACGTGTCTGATTCCAA
ACAGTTACCTATTACCCTCTGGTGGAAGACAAGGAAGAGGTGCAGCGGAAGCGGAGGAAGGCCTTGCCACCTT
CTCCAGCCCTTCGGGGGTGGCTCCACATGGGTGGAGGCTCTGGGGGTGCAGCCGGGGGGCTACGGAGGAGCTGG
AGGAGGTGGCAGCCTCGGTTTCTTCCCCTCCTCCCTGGCCTACAGCCCTACCAGTCCGGCGCGGGCCCCATGCG
GTGCTACCCGGGAGGCGGGGGCGGGGCGCAGATGGCCGCCACGGTGCCAGCAGGGACTCCGGGGAGGAAGCCGC
GGAGCCGAGCGCCCCCTCCAGGACCCCCCAGTGCGAGCCGAGGCCCGGAGATGCTGCAGCGAGCTCGAGAGTA
CAACGCGCGCCTGTTCCGGCCTGGCGCACGCAGCCCCGAGCCCTACTCGACTACTGCGTCACCGCGGACGCCGCGC
GCTGCTGGCGGGACAGCGCCACCTGCTGACGGCGCAGGACGAGAACGGAGACACACCACTGCACCTAGCCATCAT
CCACGGGCAGACCAGTGTCATTGAGCAGATAGTCTATGTCTATCCACCACGCCCAGGACCTCGGCGTTGTCAACCT
CACCAACCACCTGCACCAGACGCCCTGCACCTGGCGGTGATCACGGGGCAGACGAGTGTGGTGAGCTTCTGCT
GCGGGTAGGTGCAGACCCAGCTCTGCTGGATCGGCATGGAGACTCAGCCATGCATCTGGCGCTGCGGGCAGGCGC
TGGTGCTCCTGAGCTGCTGCGTGCACTGCTTCAGAGTGAGGCTCCTGCTGTGCCCCAGCTGTTGCATATGCCTGA
CTTTGAGGGACTGTATCCAGTACACCTGGCGGTCCGAGCCCGAAGCCCTGAGTGCTTGATCTGCTGGTGGACAG
TGGGGCTGAAGTGAGGCCACAGAGCGGCAGGGGGACGAACAGCCTTGCACTCTAGCCACAGAGATGGAGGAGCT
GGGGTTGGTCACCCATCTGGTCACCAAGCTCCGGGCCAACGTGAACGCTCGCACCTTTGCGGGAAACACACCCCT
GCACCTGGCAGCTGGACTGGGGTACCCGACCCTCACCCGCCCTCCTTCTGAAGGCTGGTGCTGACATCCATGCTGA
AAACGAGGAGCCCCCTGTGCCCACTGCCTTACCCCCCTACCTCTGATAGCGACTCGGACTCTGAAGGGCCTGAGAA
GGACACCCGAAGCAGCTTCCGGGGCCACACGCCTCTTGACCTCACTTGACAGCACCTTGGTGAAGACCTTGCTGCT
AAATGCTGCTCAGAACACCATGGAGCCACCCCTGACCCCGCCAGCCAGCAGGGCCGGGACTGTCACTTGGTGA
TACAGCTCTGCAGAACCTGGAGCAGCTGCTAGACGGGCCAGAAGCCAGGGCAGCTGGGCAGAGCTGGCAGAGCG
TCTGGGGCTGCGCAGCCTGGTAGACACGTACCGACAGACAACCTCACCCAGTGGCAGCCTCCTGCGCAGCTACGA
GCTGGCTGGCGGGGACCTGGCAGGTCTACTGGAGGCCCTGTCTGACATGGGCCTAGAGGAGGGAGTGAGGCTGCT
GAGGGGTCCAGAAACCCGAGACAAGCTGCCCAGCACAGAGGTGAAGGAAGACAGTGCGTACGGGAGCCAGTCAGT
GGAGCAGGAGGCAGAGAAGCTGGGCCCACCCCTGAGCCACCAGGAGGGCTCTCGCACGGGCACCCCCAGCCTCA
GGTGA CTGACCTGCTGCCTGCCCCAGCCCCCTTCCCGGACCCCTGTACAGCGTCCCCACCTATTTCAAATCTT
ATTTAACACCCACACCCACCCCTCAGTTGGGACAAATTAAAGGATTCTCATGGGAAGGGGAGGACCCCGAATTCC

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FIGURE 663

MESCYNPGLDGIIEYDDFKLNSSIVEPKEPAPETADGPYLVIVEQPKQRFGRFRYGCEGPSHGGLPGASSEKGRK
TYPTVKICNYEGPAKIEVDLVTHSDPPRAHAHSLVGKQCSELGICAVSVGPKDMTAQFNNLGVLVHTKKNMMGMT
IQKLQRQRLRSRPQGLTEAEQRELEQEAKELKKVMDLSIVRLRFS AFLRASDGSFSLPKPVTSQPIHDSKSPGA
SNLKISRMDKTAGSVRGDEVYLLCDKVQKDDIEVRFYEDDENGWQAFGDFSPTDVHKQYAIVFRTPPYHKMKIE
RPVTVFLQLKRKRGGDVSDSKQFTYYPLVEDKEEVQRKRRKALPTFSQPFGGGSHMGGGSGGAAGGYGGAGGGGS
LGFFPSSLAYSPIYQSGAGPMRCYPGGGGGAQMAATVPSRDSGEEAAEPSAPSRTPOCEPAPEMLQRAREYNARL
FGLAHAAPSPTRLLRHRGRRALLAGQRHLLTAQDENGDTPLHLAI IHGQTSVIEQIVYVIHHAQDLGVVNLTNHL
HQTPLHLAVITGQTSVVSFLLRVGADPALLDRHGDSAMHLALRAGAGAPELLRALLQSGAPAVPQLLHMPDFEGL
YPVHLAVRARSPECDLLVDSGAEVEATERQGGRTALHLATEMEELGLVTHLVTKLRANVNARTFAGNTPLHLAA
GLGYPTLTRLLLKAGADIHAENEEPLCPLPSPPTSDSDSDSEGPEKDTRSSFRGHTPLDLTCSTLVKTLNNAQ
NTMEPPLTPPSPAGPGLSLGDTALQNLEQLLDGPEAQGSWAELAERLGLRSLVDTYRQTTSPPSGSLLRSYELAGG
DLAGLLEALSDMGLEEGVRLLRGPETRDKLPSTEVKEDSAYGSQSVEQEAELGPPPEPPGGLSHGHPQPQVTDL
LPAPSPPLPGPPVQRPHLFQILFNTPHPLPSWDK

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FIGURE 664

TTCTAGTTTTCGGTTTCAGGTTTGCCGCTGCCGGCCAGCGTCCTCTGGCCATGGACACCCCGGAAATGTCCTTCA
GATGCTTGAAGCCCACATGCAGAGCTACAAGGGCAATGACCTCTTGGTGAATGGGAAAGATACATACAGTGGGT
AGAAGAGAATTTTCTGAGAATAAAGAATACTTGATAACTTTACTAGAACATTTAATGAAGGAATTTTGTAGATAA
GAAGAAATACCACAATGACCCAAGATTTCATCAGTTATTGTTTAAATTTGCTGAGTACAACAGTGACCTCCATCA
ATTTTTGAGTTTCTGTACAACCATGGGATTGGAACCTGTCTATCCCTCTGTACATTGCCTGGGCGGGGCATCT
GGAAGCCCAAGGAGAGCTGCAGCATGCCAGTGCTGTCTTCAGAGAGGAATTCAAACCCAGGCTGAACCCAGAGA
GTTCTCTGCAACAACAATACAGGTTATTTAGACACGCCTCACTGAAACCCATTTGCCAGCTCAAGCTAGAACCTC
AGAACCTCTGCATAATGTTTCAGGTTTTAAATCAAATGATAACATCAAAATCAAATCCAGGAAATAACATGGCCTG
CATTTCTAAGAATCAGGGTTTCAGAGCTTTCTGGAGTGATATCTTCAGCTTGATGATAAAGAGTCAAATATGGAACG
AAGAGTGATCACGATTTCTAAATCAGAATATTCTGTGCACTCATCTTTGGCATCCAAAGTTGATGTTGAGCAGGT
TGTTATGTATTGCAAGGAGAAGCTTATTCGTGGGGAATCAGAAATTTCTTTGAAGAATTGAGAGCCCAGAAATA
CAATCAACGGAGAAAGCATGAGCAATGGGTAAATGAAGACAGACATTATATGAAAAGGAAAGAAGCAAATGCTTT
TGAAGAACAGCTATTTAAACAGAAAATGGATGAACTTCATAAGAGTTGCATCAGGTGGTGGAGACATCCCATGA
GGATCTGCCCCGCTTCCCAGGAAAGGTCCGAGGTTAATCCAGCACGTATGGGGCCAAGTGTAGGCTCCCAGCAGGA
ACTGAGAGCGCCATGTCTTCCAGTAACCTATCAGCAGACACCAGTGAACATGGAAAAGAACCCAAGAGAGGCACC
TCCTGTTGTTCTCTCTTTGGCAAATGCTATTTCTGCAGCTTTGGTGTCCCCAGCCACCAGCCAGAGCATTGCTCC
TCCTGTTCTTTGAAAGCCAGACAGTAACAGACTCCATGTTTGCAGTGGCCAGCAAAGATGCTGGATGTGTGAA
TAAGAGTACTCATGAATTCAAGCCACAGAGTGGAGCAGAGATCAAAGAAGGGTGTGAAACACATAAGGTTGCCAA
CACAAGTTCTTTTACACAACCTCAAACACATCACTGGGAATGGTTCAGGCAACGCCATCCAAAGTGCAGCCATC
ACCCACCGTGCACACAAAAGAAGCATTAGGTTTTCATCATGAATATGTTTCAGGCTCCTACACTTCTGATATTTT
TGATGACAAAGATGAATGGCAATCTCTAGATCAAAATGAAGATGCATTTGAAGCCCAGTTTCAAAAAAATGTAAG
GTCATCTGGGGCTTGGGGAGTCAATAAGATCATCTCTTCTTGTCTATCTGCTTTTTCATGTGTTTGAAGATGGAAA
CAAAGAAAATTATGGATTACCACAGCCTAAAAATAAACCCACAGGAGCCAGGACCTTTGGAGAACGCTCTGTGAG
CAGACTTCTTCAAACCAAAGGAGGAAGTGCCTCATGCTGAAGAGTTTTTGGATGACTCAACTGTATGGGGTAT
TCGCTGCAACAAAACCTGGCACCCAGTCTTAAGAGCCCAGGAGACTTCACATCTGCTGCACAACCTGCGTCTAC
ACCATTCCACAAGCTTCCAGTGGAGTCAGTGCACATTTTAGAAGATAAAGAAAATGTGGTAGCAAAACAGTGTAC
CCAGGCGACTTTGGATTCTTGTGAGGAAAACATGGTGGTGCCTTCAAGGGATGGAAAATTCAGTCCAATTCAAGA
GAAAAGCCCCAAAACAGGCCTTGTCTCTCACATGTATTTCAGCATCCTTACTTCTGCTGAGCCAGCCTGCTGCAGG
TGGGGTACTTACCTGTGAGGCAGAGTTGGGCGTTGAGGCTTGCAGACTCACAGACACTGACGCTGCCATTGCAGA
AGATCCACCAGATGCTATTGCTGGGCTCCAAGCAGAATGGATGCAGATGAGTTCACTTGGGACTGTTGATGCTCC
AACTTTCATTGTTGGGAACCCATGGGATGATAAGCTGATTTTCAAACTTTTATCTGGGCTTTCTAAACCAGTGAG
TTCTATCCAAATACTTTTGAATGGCAATGTAACTTCCAGCCATCAAGCCCAAGACTGAATTTCAATTGGGTTC
TAAGCTGGTCTATGTCCATCACCTTCTTGGAGAAGGAGCCTTTGCCAGGTGTACGAAGCTACCCAGGGAGATCT
GAATGATGCTAAAAATAAACAGAAATTTGTTTTAAAGGTCCAAAAGCCTGCCAACCCCTGGGAATTCTACATTGG
GACCCAGTTGATGGAAAGACTAAAGCCATCTATGCAGCACATGTTTATGAAGTTCTATTCTGCCCACTTATTCCA
GAATGGCAGTGTATTAGTAGGAGAGCTCTACAGCTATGGAACATTATTAAATGCCATTAACTCTATAAAAAATAC
CCCTGAAAAAGTGATGCCTCAAGGTCTTGTCTATCTCTTTTGCTATGAGAATGCTTTACATGATTGAGCAAGTGCA
TGACTGTGAAATCATTATGGAGACATTAAACCAGACAATTTCACTTGGAAACGGATTTTTGGAACAGGATGA
TGAAGATGATTTATCTGCTGGCTTGGCACTGATTGACCTGGGTGAGATATAGATATGAACTTTTTTCCAAAAGG
AACTATATTACAGCAAAGTGTGAAACATCTGGTTTTTCAGTGTGTTGAGATGCTCAGCAACAAACCATGGAACCTA
CCAGATCGATTACTTTGGGGTTGCTGCAACAGTATATTGCATGCTCTTGGCACTTACATGAAAGTGAAAAATGA
AGGAGGAGAGTGTAAGCCTGAAGGTCTTTTTAGAAAGGCTTCTCATTTGGATATGTGGAATGAATTTTTTCATGT
TATGTTGAATATTCCAGATTGTCTATCTTCCATCTTTGGATTTGTTAAGGCAAAAGCTGAAGAAAGTATTTCA
ACAACACTATACTAACAAGATTAGGGCCCTACGTAATAGGCTAATTGTAAGTGTCTTTAGAATGTAAGCGTTACAG
AAAAATAAAATTTGGATATAGACAGTCTTAAAAATCACACTGTAAATATGAATCTGCTCACTTTAAACCTGTTTT
TTTTTCATTTATTGTTTATGTAAATGTTTGTAAAAATAAATCCCATGGAATATTTCCATGTAAAAAAA

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FIGURE 665

MDTPENVLQMLEAHMQSYKGNDPLGEWERYIQWVEENFPENKEYLITLLEHLMKEFLDKKKYHNDPRFISYCLKF
 AEYNSDLHQFFEFLYNHGIGTLSSPLYIAWAGHLEAQGELQHASAVLQRGIONQAEPREFLOQQYRLFQTRLTET
 HLPARTSEPLHNVQVLNQMITSKSNPGNNMACISKNQGSSELSGVISSACDKESNMERRVITISKSEYSVHSSL
 ASKVDVEQVVMYCKEKLIRGESEFSFEELRAQKYNQRRKHEQWVNEDRHYMKRKEANAFEEQLLKQKMDDELHKKL
 HQVVETSHEDLPASQERSEVNPARMGPSVGSQQELRAPCLPVTYQQTPVNMEKNPREAPPVVPPLANAISSAALVS
 PATSQSIAPPVPLKAQTVTDSMFAVASKDAGCVNKSTHEFKPQSGAEIKEGCETHKVANTSSFHTTPNTSLGMVQ
 ATPSKVQPSPTVHTKEALGFIMNMFQAPTLPDISDDKDEWQSLDQNEFAEQFQKNVRSSGAWGVNKIISLSS
 AFHVFEDGNKENYGLPQPKNKTGARTFGERSVSRLPSPKKEEVPAAEEFLDDSTVWGIRCNKTLAPSPKSPGDF
 TSAAQLASTPFHKLPPVESVHILEDKENVAKQCTQATLDSCEENMVVPSRDGKFSPIQEKSPKQALSSHMYASL
 LRSLQPAAGGVLTCAEELGVEACRLTDAAIAEDPPDAIAGLQAEWMQMSSLGTVDAPNFIVGNPWDDKLIFKL
 LSGLSKPVSSYPNTFEWQCKLPAIKPKTEFQLGSKLVYVHLLGEGAFQVYEATQGDLDNAKNKQKFVLKVQKP
 ANPWEFYIGTQLMERLKPSMQHMFMYSAHLFQNGSVLVGELYSGTLLNAINLYKNTPEKVPQGLVISFAMR
 MLYMIEQVHDCEIIHGDIKPDNFI LGNGFLEQDDEDDLSAGLALIDLQSIDMKLFPKGTIFTAKCETSGFQCVE
 MLSNKPWNYQIDYFGVAATVYCMFLGTYMKVKNEGGECKPEGLFRRLPHLDMWNEFFHVMLNIPDCHHLPSDLL
 RQKLKKVFQQHYTNKIRALRNRLIVLLECKRSRK

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FIGURE 666

GCGCAGAAGCGGCGGCGGTGGTGGCTTGTGGTGCGGCCTCACCATACAGGAACAGGGCAGACGTTAGCGTGAGTG
ATCACTCTCAATCCCGGGGACCTGGTGGCCTTAGTCTTTCAGGTGGAACGGTGTGCGAC**ATGGGAAAGAAAACCA**
AGCGGACAGCTGACAGTTCTTCTTCAGAGGATGAGGAGGAGTATGTTGTGGAGAAGGTGCTAGACAGGCGCGTGG
TTAAGGGACAAGTGGAATATCTACTGAAGTGAAAGGCTTTTCTGAGGAGCACAACTTGGGAACCTGAGAAAA
ACTTGGATTGCCCTGAGCTAATTTCTGAATTTATGAAAAAGTATAAGAAGATGAAGGAGGGTGAAAATAATAAAC
CCAGGGAGAAGTCAGAAAGTAACAAGAGGAAATCCAATTTCTCAAACAGTGCCGATGACATCAAATCTAAAAAAA
AGAGAGAGCAGAGCAATGATATCGCTCGGGGCTTTGAGAGAGGACTGGAACCAGAAAAGATCATTGGGGCAACAG
ATTCTGTGGTGATTTAATGTTTCCTAATGAAATGGAAAGACACAGATGAAGCTGACCTGGTTCTTGCAAAGAAG
CTAATGTGAAATGTCCACAAATTGTGATAGCATTTTATGAAGAGAGACTGACATGGCATGCATATCCTGAGGATG
CGGAAAACAAAGAGAAAGAAACAGCAAAGAGCT**TAA**AGGAGGGGATGGTCTCTGTCATTTCTCTTTGTACATAATA
CATTCACCTCCCTGCCTCCTCTCCTTTCTACCCACCCCTTTCTATCCTAAACACATCCATAAAAAATGTGCTTAT
CACTGTGCTCCACAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

PTSD/PTSD

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FIGURE 667

MGKKTkRTADSSSSSEDEEEYVVEKVLDRRVVKQVEYLLKWKGFSEEHNTWEPEKNLDCPELISEFMKKYKKMKE
GENNKPREKSESNNRKSNSNSADDIKSKKKREQSNDIARGFERGLEPEKIIIGATDSCGDLMLMKWKDTDEADL
VLAKEANVKCPQIVIAFYERLTWHAYPEDAENKEKETAKS

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FIGURE 668

CTGAAGCTTGCATGCCTGCAGGTCGACCCACGCGTCCGCGGACGCGTGGGCGGACGCGTGGGTTTTTCCTTTCTT
 CCAGAAAGGAGATTTAACCATAGTAGAAAGAATGGAGAACTATTAAGTGCCTTCCTTCTGTGGGCTGTGATTTTCA
 GAGGGGAATGCTAAGAGGTGATTTTCAATGTTGGGACTCAAAGGTGAAGACACTGAAGGACAGAATTTTGGCAG
 AGGAAAGATCTTCTTCGGTACCATACTTGAGTTAGCTCTAGGGAAAGTGGAGGTTTCCATTTGGAATTCTATAGC
 TTCTTCCAGGTCATAGTGTCTGCCCCACCTTCCAGTATCTCCTGATATGCAGCATGAATGAAAATGGCAAGTT
 TCCTGGCCTTCCTTCTGCTCAACTTTCGTGTCTGCCTCCTTTTGCTTCAGCTGCTCATGCCCTCACTCAGCTCAGT
 TTTCTGTGCTTGGACCTCTGGGCCCATCCTGGCCATGGTGGGTGAAGACGCTGATCTGCCCTGTACCTGTTCC
 CGACCATGAGTGCAGAGACCATGGAGCTGAAGTGGGTGAGTTCCAGCCTAAGGCAGGTGGTGAACGTGTATGCAG
 ATGGAAGGAAGTGGAAGACAGGCAGAGTGCACCGTATCGAGGGAGAACTTCGATTCTGCGGGATGGCATCACTG
 CAGGGAAGGCTGCTCTCCGAATACACAACGTACAGCCTCTGACAGTGGAAAGTACTTGTGTTATTTCCAAGATG
 GTGACTTCTATGAAAAAGCCCTGGTGGAGCTGAAGGTTGCAGCACTGGGTTCTGATCTTCAGTTGATGTGAAGG
 GTTACAAGGATGGAGGGATCCATCTGGAGTGCAGGTCCACTGGCTGGTACCCCCAACCCCAAATACAGTGGAGCA
 ACAACAAGGGAGAGAACATCCCGACTGTGGAAGCACCTGTGGTTGCAGACGGAGTGGGCCTGTATGCAGTAGCAG
 CATCTGTGATCATGAGAGGCAGCTCTGGGGAGGGTGTATCCTGTACCATCAGAAGTTCCCTCCTCGGCCTGGAAA
 AGACAGCCAGCATTTCCATCGCAGACCCCTTCTTCAGGAGCGCCAGAGGTGGATCGCCGCCCTGGCACGGACCC
 TGCCTGTCTTGCTGCTGCTTCTTGGGGGAGCCGGTTACTTCTGTGGCAACAGCAGGAGGAAAAAAGACTCAGT
 TCAGAAAGAAAAAGAGAGAGCAAGAGTTGAGAGAAATGGCATGGAGACAATGAAGCAAGAACAAGCACAAAGAG
 TGAAGCTCCTGGAGGAACCTCAGATGGAGAAGTATCCAGTATGCATCTCGGGGAGAGAGACATTACGCCTATAATG
 AATGGAAGAGCCCTCTTCAAGCCTGCGGATGTGATTCTGGATCCAAAAACAGCAAACCCCATCTCCTTGTTT
 CTGAGGACCAGAGGAGTGTGCAGCGTGCCAAGGAGCCCCAGGATCTGCCAGACAACCCTGAGAGATTTAATTGGC
 ATTATTGTGTTCTCGGCTGTGAGAGCTTCATATCAGGGAGACATTACTGGGAGGTGGAGGTAGGGGACAGGAAAG
 AGTGGCATATAGGGGTGTGCAGTAAGAATGTGCAGAGAAAAGGCTGGGTCAAATGACACCTGAGAATGGATTCT
 GGACTATGGGGCTGACTGATGGGAATAAGTATCGGACTCTAACTGAGCCCAGAACCAACCTGAAACTTCCTAAGC
 CCCCTAAGAAAGTGGGGGTCTTCTGGACTATGAGACTGGAGATATCTCATTCTACAATGCTGTGGATGGATCGC
 ATATTACACTTTCTGGACGCTCTCTTCTCTGAGGCTCTATATCCTGTTTTTCAGAAATTTGACCTTGGAGCCCCA
 CGGCCCTGAGTATTTGTCCAGCGTGAAGAAGAAGAGAGTTTCTCCAATTCTGACCGAGTGTGATCATTCCCT
 AGAGACACCAGTAACCCCGGGCTTAGCTAACGAAAGTGGGGAGCCTCAGGCTGAAGTAACTTTTCTCTGCTTCTC
 CCTGCCAGCTCAGAGCTGAGGGCCTCCCCCTCCACAGCAACCAATCACAACCATAAAGCTACAAGCACGCACTG
 AAGCACTTTACTGATACTCATTCAATTATTATCATATGACAGTTGTTGAGTTTGGTACCATCTTATTTTCCCTTA
 TACAGATAAGGAAACTGGGGTGCAGAAAAGTGAATTGACTACAAAAGTAGACATGACTAGTTAACAACACAGCTGG
 GATCTAAACAGCAATAACTAACAATTAATGGAGAAGTTAAATGCTCTGAGTGTGTTATGAGCTTTGGTGGAT
 GTCACTCCTTTAATCCTCGCAACACCCTGTGCGGTAGTCTCATTAGCAAGTATGGAAGTTGAGGCAGGGCAACA
 TTAAGCAACTTACATAACTCATGCAGTAATTTCTGCAGTTGGGAGATGTTAGCTTCAGTCCCCGGCCCTATGGC
 CGTTCTTTTCCACCCTGTTTCTTCCCCCATAGGAAGAACCCACCTGTAGCCCTGAGGTTCTTTTCCAGGATGGC
 TCCAGGATAAGGATCACTGTAGGTGGTTGTGGAGTTGACACCCCTGTTGACTCCTTCCAGCTGATTGTCAGAGC
 CTTAGACCCAGCACGCCTTGGATTAGCTTTGCAGAGTGTCTTGGTTGAGAGAATAACCTCACCGTACCCACATGA
 CACGTGATTTGGAAGAGACTAGAGGCCACACTTGATAAATCATGGGGAACAGATGTGTTCCACCCAACAAATGT
 GATAAGTGATCATGCAGCCAGAGCCAGCCTTCCTTCAATCAAGGTTTCCAGGCAGAGCAAATACCCTAGAGATTT
 TCTGTGATATAGGAAATTTGGATGAAGGGAGCTAGAAGAAATACAGGGATTTTTTTTTTTTTTAAAGATGGAGTC
 TTAATCTGTGTTGCTAGGCTGGAGTGCAGTGGTGCATCTCAGCTCCCTGCAACCTCCACCTCCTGGGTTCAAACAA
 TTCTCCTGCCTCAGCCTCCCGAGTACTGGGAATATAGGTGCACGCCACCACACCAACAAATTTTGTACTTTTA
 GTACAGATGAGGGTTCACTATGTTGGCCAGGATGGTCTCGATCTCTTGACCTCATGATCCACCCACCTCGGTCTC
 CCAAAGTGCTGGGATTACAGGCTTGAGCCACCGGTGACCGGCTTACAGGGATATTTTTAATCCCGTTATGGACT
 CTGTCTCCAGGAGAGGGGTCTATCCACCCCTGCTCATTGGTGGATGTTAAACCAATATTCCTTTCAACTGCTGCC
 TGCTAGGGAAAAACTACTCCTCATTATCATCATTATTATTGCTCTCCACTGTATCCCCCTTACCTGGCATGTGCT
 TGTCAAGTTCTAGTTGTTCAATAAATTTGTTAATAATGCTGAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
 AA

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FIGURE 669

MKMASFLAFLLLNFRVCLLLLQLLMPHSAQFSVLGSPGPIILAMVGEDADLPCHLFPTMSAETMELKWVSSSLRQV
VNVYADGKEVEDRQSAPYRGRTSILRDGITAGKAALRIHNVTASDSGKYLCYFQDGDIFYEKALVELKVAALGSDL
HVDVKGYKDGGIHLECRSTGWYPQPQIQWSNNKGENIPTVEAPVVADGVGLYAVAASVIMRGSSGEGVSTIRSS
LLGLEKTASISIAADPFFRSAQRWIAALARTLPVLLLLLGGAGYFLWQQQEEKKTQFRKKKREQELREMAWSTMKQ
EQSTRVKLLEELRWRSIQYASRGERHSAYNEWKKALFKPADVILDPKTANPILLVSEDQRSVQRAKEPQDLDPNP
ERFNWHYCVLGCEFSISGRHYWEVEVGDRKEWHIGVCSKNVQRKGWVKMTPENGFWTMGLTDGNKYRTLTEPRTN
LKLKPKPKKVGVF LDYETGDISFYNAVDGSHIHTFLDVSFSEALYPVFRILTLEPTALSICPA

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FIGURE 670

CAAATCCGTGCTCCTAGATTTGCAGGTTCTGATACTGTGGTTTCGAGCTACACTCGCCGCTGGGCAGACACTCGT
CCAAACCACTGGAGTGTGCTGGTGATCGCAGCCAGCCCTTCGCCTCTCCATGAACCCGTGAGCCTGGGGCAGGTG
CCAGGCGATGGCGCGGCCCTGTGAGCGACAGGACCCCGCCCCCTCTGCTGCTGGGCGGCCCGGCCGGACACCCCC
TGGCGGGGAGCGCTGCTTGGGTTGCGGAGCCTTCTGCAGGGGACCAGCAAGCCCAAAGAGCCGGCCAGCTGTCT
CCTGAAGGAAAAGGAGCGCAAGGCGGCCCTGCCTGCAGCCACAACCCCTGGGCCAGGCCTGGAGACTGCGGGCCC
GGCGGATGCCCCGGCTGGGGCAGTGGTGGGCGGAGGGTCCCCGCGGGGGCGCCCCGGGGCCGGTGCCCGCCCCGGG
TCTGTTGGCGCCACTGCTGTGGGAGCGCACGCTGCCGTTTCGGCGATGTGGAGTACGTAGACCTGGACGCCTTCCT
GCTGGAGCACGGGCTCCCGCCAGCCCGCCGCCCCCGGTGGCCCGTCGCCGAGCCGTCGCCCGCGCGGACGCC
CGCACCCCTCCCCAGGGCCGGGTTCTGTGCGGCTCGGCTTCCCCCGCTCCTCTCCTGGGCACGCCCCCGCCGGGC
TGCCCTCGGGACCGCCACGGGCCACCGCGCAGGCCTGACCTCTCGGGACACACCCAGCCCTGTGGACCCAGACAC
CGTGGAGGTGTTGATGACCTTTGAACCCGACCCAGCTGATCTTGCCCTATCAAGCATTCTGGCCACGAGACCTT
TGACCCCTCGAAGACATCGCTTCTCAGAAGAGGAACTTAAGCCCCAGCCAATCATGAAGAAGGCAAGAAAAATCCA
GGTGCCGGAGGAGCAGAAGGATGAGAAATACTGGAGCCGGCGGTACAAGAACAACGAGGCAGCCAAGCGGTCCCG
TGACGCCCCGGCGGCTCAAGGAGAACCAGATATCGGTGCGGGCGGCCTTCCTGGAGAAGGAGAACGCCCTGCTGCG
GCAGGAAGTTGTGGCCGTGCGCCAGGAGCTGTCCCACTACCGCGCCGTGCTGTCCCGATACCAGGCCACGACGG
GGCCCTGTGAGGCTGCCCCACATCCCCACCTGGCAGGCGTCTCCTCCGCTTGCTGAGACTTACGCCCTGTTCCCT
TCCTGCCCTGTGCCACGGGCCGGCCAGCTGGGTGCCCCAGGGACGTGATAATGCAGATAAATACATTTATATTT
TTAAGAAAAAGCGAGCCTCCCCCTCTTGCGGGGGCGGGGAGGGTTCTCTGTGTGTCCCCGGCACGTCAGGGACC
CTATCCTCCCACCGCCTCCGTTAACACGATCCTGAATAAATCTTGAGAACCCC

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FIGURE 671

MARPVSDRTPAPLLLGGPAGTPPGGGALLGLRSLLQGTSKPKEPASCLLKEKERKAALPAATTPGPGLETAGPAD
APAGAVVGGGSPRGRPGVPAPGLLAPLLWERTLPFGDVEYVDLDAFLLEHGLPPSPPPPGGPSPEPSPARTPAP
SPGPGSCGSASPRSSPGHAPARAALGTATGHRAGLTSRDTPSPVDPDTVEVLMTFEPDPADLALSSIPGHETFDP
RRHRFSEEELKPQPIIMKKARKIQVPPEEQKDEKYWSRRYKNNEAAKRSRDARRLKENQISVRAAFLEKENALLRQE
VVAVRQELSHYRAVLSRYQAQHGAL

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FIGURE 672

AGACTCAACAAGAGCTCCAGCAAAGACTTTCACTGTAGCTTGACTTGACCTGAGATTAACTAGGGAATCTTGAGA
ATAAAGATGAGCTCTGAAAATTGTTTCGTAGCAGAGAACAGCTCTTTGCATCCGGAGAGTGGACAAGAAAATGAT
GCCACCAGTCCCCATTTCTCAACACGTCATGAAGGGTCCTTCCAAGTTCCTGTCCTGTGTGCTGTAATGAATGTG
GTCTTCATCACCATTTTAAATCATAGCTCTCATTGCCTTATCAGTGGGCCAATACAATTGTCCAGGCCAATACACA
TTCTCAATGCCATCAGACAGCCATGTTTCTTCATGCTCTGAGGACTGGGTTGGCTACCAGAGGAAATGCTACTTT
ATTTCTACTGTGAAGAGGAGCTGGACTTCAGCCCAAATGCTTGTTCTGAACATGGTGCTACTCTTGCTGTCATT
GATTCTGAAAAGGACATGAACTTTCTAAAACGATACGCAGGTAGAGAGGAACACTGGGTTGGACTGAAAAAGGAA
CCTGGTCACCCATGGAAGTGGTCAAATGGCAAAGAATTTAACAACCTGGTTCAACGTTACAGGGTCTGACAAGTGT
GTTTTTCTGAAAAACACAGAGGTCAGCAGCATGGAATGTGAGAAGAATTTATACTGGATATGTAACAAACCTTAC
AAATAAAGGAAACATGTTCACTTATTGACTATTATAGAATGGAACCTCAAGGAAATCTGTGTCAGTGGATGCTG
CTCTGTGGTCCGAAGTCTTCCATAGAGACTTTGTGAAAAAAATTTTATAGTGTCTTGGAATTTTCTTCCAAAC
AGAACTATGGAAAAAAGGAAGAAATTCAGGAAATCTGCACTGTGGGCTTTTATTGCCATGAGCTAGAAGCAT
CACAGGTTGACCAATAACCATGCCCAAGAATGAGAAGAATGACTATGCAACCTTTGGATGCACTTTATATTATTT
TGAATCCAGAAATAATGAAATAACTAGGCGTGGACTTACTATTTATTGCTGAATGACTACCAACAGTGAGAGCCC
TTCATGCATTTGCACTACTGGAAGGAGTTAGATGTTGGTACTAGATACTGAATGTAAACAAAGGAATTATGGCTG
GTAACATAGGTTTTTAGTCTAATTGAATCCCTTAACTCAGGGAGCATTATATAAATGGACAAATGCTTATGAAAC
TAAGATTTGTAATATTTCTCTCTTTTTAGAGAAATTTGCCAATTTACTTTTGTTATTTTTCCCCAAAAAGAAATGGG
ATGATCGTGATTTATTTTTTTTACTTCCTCAGCTGTAGACAGGTCCTTTTCGATGGTACATATTTCTTTGCCTTT
ATAATCTTTTATACAGTGTCTTACAGAGAAAAGACATAAGCAAAGACTATGAGGAATATTTGCAAGACATAGAAT
AGTGTGGAAGATGTGCAATATGTGATGTGGCAAATCTCTATTAGGAAATATTCTGTAATCTTCAGACCTAGAAT
AATACTAGTCTTATAATAGGTTTGTGACTTTCTAAATCAATTCTATTACGTGCAATACTTCAATACTTCATTTA
AAATATTTTTATGTGCAATAAAATGTATTTGTTGTATTTGTGTTTCAGTACAATTATAAGCTGTTTTTATATAT
GTGAAATAAAAGTAGAATAAACACAAAAA

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FIGURE 673

MSSENCFVAENSSLHPESGQENDATSPHFSTRHEGSFQVPVLCVMMNVVFITILIIALIALSVGQYNCPGQYTFS
MPSDSHVSSCEDWVG YQRKCYFISTVKRSWTS AQNACSEHGATLAVIDSEKDMNFLKRYAGREEHWVGLKKEPG
HPWKWSNGKEFNW FNV TGSDKCVFLKNT EVSSMECEKNLYWICNKPYK

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FIGURE 674A

CCGGGGTCCCCTTTACCCAAGTGAGCCAGCTCAGGCTGTCTGCAAAGCCGGAGGTGCGGGCAGCTCCGGGCATT
GCATTGGTGCGGAGGCTTTTATATGCCAGAGAACCCTGAGTGTGCCCTGACATGACAAGGAGCCGTCGTCGTTA
GGACTACCGACCAGACTCCCGGAAATC**ATGTT**GGTAGGATCCCAGTCTTTTTTCGCCTGGAGGGCCCAATGGGATC
ATTAGAAGCCAGTCCTTTGCGGGTTTCAGCGGCCTCCAGGAAAAGCGATCCAGGTGTAACCTCTTCATTGAAAAAT
TCCTCCGCTCTCAAGAAGCCTCAGGCCAAACTGAAGAAAAATGCACAATTTAGGCCACAAAAACAACAATCCCCC
AAAGAGCCTCAGCCTAAAAGGGTGGAAGAAGTCTACAGGGCCTTGAAAAATGGACTTGATGAATATCTGGAGGTT
CACCAGACGGAGCTGGACAAGTTGACAGCTCAGTTAAAAAGATATGAAAAGAACTCTCGCCTGGGTGTACTGTAT
GACCTAGACAAGCAAATTTAAACAATTGAAAGATACATGAGACGCCTGGAGTTTCATATAAGTAAGGTAGATGAA
CTCTATGAAGCTTATTGTATCCAGCGACGCCTCCAGGATGGTGCCAGCAAAATGAAGCAAGCCTTCGCAACATCC
CCTGCCAGCAAAGCTGCCCGGGAGAGTCTGACAGAGATCAATCGGAGCTTCAAGGAGTACACAGAGAATATGTGC
ACCATGAAGTGGAGCTAGAGAATCTGCTGGGAGAATTCTCCATCAAGATGAAAGGTCTGGCTGGCTTTGCACGC
CTCTGTCTGGAGATCAATATGAAATTTTCATGAAGTATGGCCGGCAGCGGTGGAAGCTGAAAGGCCAAATAGAA
GTAAATGGCAAGCAGAGCTGGGATGGAGAAGAAACAGTTTTTCTGCCCTGATAGTTGGGTTCATCTCCATCAAG
GTCACGGAGCTCAAAGGGCTAGCAACTCACATCCTGGTAGGTAGCGTGACCTGTGAGACCAAAGAGCTGTTTGCA
GCCCCACCTCAGGTAGTGGCTGTGACATCAATGACCTTGGTACCATCAAACCTGAACCTGGAAATCACCTGGTAT
CCATTTGACATGGAGGACATGACCGCATCCTCAGGCGCTGGGAACAAGGCAGCAGCCCTTCAGAGGAGAATGTCC
ATGTACAGCCAGGGTACCCCGAAACGCCACCTTCAAAGACCACTCCTTCTTTAGGTGGCTGCATCCTTCCCCA
GACAAGCCCAGGCGGCTGTCTGTCTTGAGTGCCTTGCAAGACACTTTCTTTGCCAAGCTGCACCGCAGCCGCTCC
TTCAGTGACCTGCCCTCCCTCAGGCCGAGTCCCAAGGCCGTGCTAGAGCTCTATTCAAATCTACCTGATGACATC
TTTGAAAAATGGAAGGCAGCCGAGGAGAAAATGCCACTGTGCTCAGCTTCAGTGACCTGCCCAACGGGGACTGC
GCCCTCACCTCCCCTCAACAGGCTCCCTTTCCAACCTCAACAAATCCAGAAATTACCATCACCCCTGCGGAGTTT
AACCTCAGCAGCTTGGCCTCCAGAATGAGGGTATGGATGACACCAGCTCAGCATCTTCCAGGAACCTCCCTGGGA
GAAGGCCAAGAGCCAAAGTCACACCTGAAGGAGGAAGACCCAGAGGAGCCAGAAAACCTGCCTCGGCCCCATCT
GAGGCTTGCCGCCGACAGTCTCAGGTGCTGGGGCTGAGCACCTGTTCTTGAGAATGATGTTGCAGAAGCACTT
CTGCAAGAGTCTGAGGAGGCCTCTGAGCTCAAGCCTGTGGAACCTGGACACTTCGGAAGGAAACATCACAAAGCAG
CTGGTCAAGAGGCTCACATCTGCAGAGGTGCCAATGGCCACAGACAGGCTGCTCTCTGAGGGTTCTGTTGGTGGA
GAATCTGAAGGCTGCAGATCCTTTCTAGATGGAAGCTTAGAGGATGCTTTTAATGGGCTTTTACTTGCATTAGAA
CCACATAAAGAGCAGTATAAAGAGTTTCAGGATCTGAACCAAGAAGTCATGAATTTGGATGATATTCTAAATGC
AAGCCAGCAGTAAGCCGACAGGCTCTTCCAGTTTAAGTCTCACAGTTGAAAGTGCTTTAGAAAGCTTTGATTTT
CTGAACACCTCTGATTTTGACGAGGAGGAGGATGGTGATGAGGTTTGTAAATGTTGGCGGAGGTGCTGACTCAGTA
TTTTTCAGACACTGAGACTGAGAAACACAGTTACAGGTGCGTTACCCAGAAGCCAGGGGGCATCTCAGTGAAGCG
CTCACTGAAGACACAGGAGTTGGGACCAGTGTGGCAGGAAGTCTCTCCACTGACCACAGGCAACGAGAGCCTG
GACATCACCATCGTCAGGCACCTCCAGTACTGCACCCAACTCGTGCAGCAAATTGTTTTCTCAAGCAAAACCCCA
TTTGTGGCAAGAAGTCTCTTAGAGAAGCTTTCTAGGCAGATCCAAGTGATGGAGAACTCGCAGCTGTCAGTGAT
GAGAACATAGGAAATATCAGTTCTGTTGTGGAAGCCATACCAGAATTTACAAAAAGCTGTCTTTGCTGTCAATC
TGGACCAAGTGCTGCAGCCCTGTTGGTGTCTACCACAGCCCAGCGGACAGAGTGATGAAGCAGCTGGAGGCCAGC
TTTGCCAGAAGTGTCAACAAAGAATATCCAGGACTTGACAGCCAGTGTTTCGAACCCTGGTGTCCCAAATTTCTG
GACCAGGCTGAGCCTCTGCTTTTCCCTCAGCCTGTCTCGGAAGTCGTCACTGTTTTCCAGTATTACAGTTACTTC
ACCAGCCACGGCGTCAGTGACCTGGAGAGTTACCTGAGCCAGCTGGCCAGGCAAGTTTCCATGGTTACAGACTCTG
CAATCACTAAGAGATGAAAACTGCTACAAACCATGAGTGACCTTGCTCCAGCAACCTCCTGGCCAGCAGGAA
GTACTCAGGACTCTGGCTCTGCTATTAACCAGAGAGGACAACGAAGTTAGCGAGGCTGTGACGCTTTACTTGGCA
GCAGCCTCCAAAAATCAGCATTTCAGGGAAAAGGCCTTGCTCTATTACTGTGAAGCACTAACAAAGACAAACCTC
CAGCTCCAGAAAGCAGCTTGCCCTGGCTCTGAAAATCCTTGAGGCTACTGAAAGCATTAAAAATGCTGGTGACATTG
TGTCAATCTGATACTGAAGAAATCAGAAATGTGGCCTCAGAAACCCCTCTGTCTCTGGGAGAAGATGGGCGGCTG
GCATATGAACAATTTGGACAAATTTCCCTCGAGACTGTGTTAAAGTCGGAGGTCGTCATGGAAGTGAAGTTGCCACA
GCCTTTT**TAA**TTACAGATTAACTGCCTAACAGCTGTCTTAATATCTGGCCCTTTTCATCAGGATGGTGCTGTGGTT
TGGGCTGGAAATTTGTTAGAGCCTGAGAGACACGACAACTGAAATAAAAAATGTAGGCCAGGTGCAGTGGCTCATG
CCTGTAATCCAGTACTTTGGGAGGCCAACGCAGGAGAATTGCTTAAGCCCAGGAGGTTCAAGACCAACCTGGGC

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FIGURE 674B

AACATAGCAAGGCCCTGTCTCTACAAAAAATAGTTTAATTAGTCGGGCGTGGTGGCATGCACCTGTAGTCCCA
GCTACTTGGGAGGCTAAGGTGGGAGGATTGCTTGAGCCCAGAAGATTCAGGCTGCAGTGAGCCATAATTGCCCA
CTGCACTCCAGACTGGGTGACAGAGCAAAACCCTGTCTCAAAAAACAAAACAACAACAACACTAAAAAACATG
TTATAGAAAGAATTCAGAGTCTCGTTTTACAGTACCTATCTACTTTTTCTTTGGCCAATATAGAATAGGGCTATG
GTATAATTCAAATAGATTACATCGTCGATTGTGTCTAATAATACTCAGTGAAAGAGTCCATCTTATCTTAATATG
TATGAAATTTAAAAATAGCCATCTTTGTACTTTTTTGCAAGTTTCTCTATAAGCTTGAAATAGTCATGTGATACT
TCGACAAACATCATATGCCTTGCAGTTTTTCTCGGTCTGTCTCAGGGTTGAGTAGTCCCTTAGCTACCTAAC
TTTACTTTCAATACAAAGCACAAAAAGAATACTTCAAATAAAAGTTTGCCTGCAGAACCTGGCAAAATGACCCA
TTATGAGAGTTTAGATGTTTTAATTTTATGTGCTCCCAGCTACTCTGGAGTCTGAGGTGGGAGGATCACTTGAGG
CAGAGGTTGCAGTAAGCTGAGATTACACTACTGCACTCCAGCCCATGTGACAGAGGAATGAGAGCCAGTCTCAAA
AAAAAAAACAAAAAATCCCATAAATTTATTTTGTCTTTTCCCCATCCTGAAAATTCCTCAAATCATGTTTCCA
TTATGGAAAAATGATAAGTAAATGACTAAGAACTACATTAAGATTATGCCTATACACTTAAACAAAAAATCAAA
GCTTATGCTTTTTTTTTTTAATTAATGAGAGCTATTTTTTATGATATTCTTACCATAGGGGTGTTTTGCTGCTAA
GACAAATCAAAACCAAAGCTGTAGATTACAAACCTGTGATGCTCTTTGAGGTGGAGGAACCTAGAAGTCAGAG
AAATCCTAATGGAGTAGGAGTGGAGGAACATTTAAAGTGGTCCCTCCTTCTGTAAAAATGACCGTGGGATTAGAA
AGAAGGACATCCTGAGGGGTGTTACTGCCCCCAGGGAAATCACTCACTGGTAGGATTCCCTGGCCAAATAGTTC
AAACATCAGGTCCCATTATTGCTTCAGTATCAGAGATGCAAGTTCATTAAAGCAAAGTACAAGACCATTTCAGTAGC
TCTTATTAAATATCTTTTCTCCTCTAAAGAGTGTAAGGTGGGGTATGCCAAGGTATCAAAACAATATATGT
GAGTGTAATTTAACTGTGGAATATCAACTGTACTATGGACGTGTTTGTATCATTTTAGATGTCATTTTAAATATT
TACATTTTAGCAAGACTTTTAAAAAGGACTCATTTCAATTCAAAGTGCAAATTGTTTGCCAGGCTTCTGGCAAAT
GGTTCTTTCAACTGTGAACCTATAGTGACATATCTGTATATTTATAAATATTATATATATTATACATCCTTCA
GTTTAAAGGTACATTGTACAGTCTGTAGTTAGGAGGTATAGCCTATAGCTTATGTTAAATGGTTGAAATGGTTCT
TTTTATAGAAAGTCAAACACAGATGTTACAGGATTTTGTGTTGGTTTGTGTCATTTTTTTATTTTTTATTTTGACT
ATTGCATGAGTAATTAATTCAGATCTTTTGATTCACTTCTGTATTTTATGTTTGGTTGAGGGGTGCTTTTAGT
TGTGTGGCATTGTATTCAATGATCTTTCAGTCATGTAAGTTAAAAATAAAATTATTTTTGAATTACTAGC

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FIGURE 675

MLVGSQSFSPGGPNGIIRSQSFAFSGLQERRSRCNSFIENSSALKKKPQAKLKKMHNLGHKNNNPPKEPQPKRVE
 EVYRALKNGLDEYLEVHQTELDKLTAKLQKDMKRNSRLGVLYDLKQIKTIERYMRRLEFHISKVDELYEAYCIQR
 RLQDGASKMKQAFATSPASKAARESLTEINRSFKEYTENMCTIEVELENLLGEFSIKMKGLAGFARLCPGDQYEI
 FMKYGRQRWKLKGKIEVNGKQSWDGEETVFLPLIVGFISIKVTELKGLATHILVGSVTCETKELFAARPQVVAVD
 INDLGTIKLNLEITWYPFDMEDMTASSGAGNKAALQRRMSMYSQGTPETPTFKDHSFFRWLHPSPDKPRRLSVL
 SALQDTFFAKLHRSRFSFSDLP SLRPSKAVLELYSNLPDDIFENGKAAEEKMPLSLSFSDLPNGDCALTSHSTGS
 PSNSTNPEITITPAEFNLSSLASQNEGMDDTSSASSRNSLGEGQEPKSHLKEEDPEEPRKPASAPSEACRRQSSG
 AGAEHLFLENDVAEALLQESEEASELKPVELDTSEGNITKQLVKRLTSAEVPMATDRLLSEGSVGGEGCRSFL
 DGSLEDAFNGLLLALEPHKEQYKEFQDLNQEVMLDDILKCKPAVSRSRSSSLSTVESALESFDFLNTSDFDEE
 EDGDEV CNVGGGADSVFSDTETEKHSYRSVHPEARGHLSEALTEDTGVGTSVAGSPLPLTTGNESLDITIVRHLQ
 YCTQLVQQIVFSSKTPFVARSLLEKLSRQIQVMEKLA AVSDENIGNISSVVEAIP EFHKKLSLLSFWTKCCSPVG
 VYHSPADRMKQLEASFARTVNKEYPGLADPVFRTLVSQILDQAEPLLSSSLSSSEVTVFQYYSYFTSHGVSDLE
 SYLSQLARQVSMVQTLQSLRDEKLLQTMSDLAPSNLLAQQEVRLTALLLTREDNEVSEAVTLYLAAASKNQHFR
 EKALLYCEALTKTNLQLQKAACLALKILEATESIKMLVTLCQSDTEEIRNVASETLLSLGEDGRLAYEQLDKFP
 RDCVKVGGRHGTEVATAF

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FIGURE 676

CCCGCCTCTTCCCTCCCTTCTTTCTTTCTTGCTTTTCGCCGCGCACTCCGCCGCC**ATG**GAGCAGCGCCGCGTCACC
GACTTCTTCGCGCGCCGCCGCCCGGGCCCCCGCATCGCGCCGCCAAGCTGGCCTGCCGCACCCCCAGCCCC
GCCAGGCCCGCACTCCGCGCCCCGGCCTCCGCTACCAGTGGCAGCCGCAAGCGCGCCCGCCCGCCCGCCCC
GGACGCGACCAGGCCAGGCCACCGGCCCGCAGGAGACTGCGGCTGTCGGTGGACGAGGTTTCCAGCCCCAGTACC
CCCGAGGCCCGACATCCAGCCTGCCCTTCTCCGGGCCAGAAGATAAAGAAATCCACCCCGGCAGCAGGTCAG
CCGCCCCACCTGACATCCGCGCAGGACCAGGACACCATCTCTGAGCTTGCGTCATGCCTGCAACGGGCCCGGGAG
CTGGGGGCAAGAGTCCGGGCGCTGAAGGCCAGTGCCCAGGATGCTGGGGAGTCTTGACCCCCAGAGGCCGAGGGC
CGCCCTGAGGAGCCATGTGGCGAGAAGGCGCCCGCCTACCAGCGCTTCCATGCCCTGGCCCAGCCCGGCCTGCCG
GGACTCGTGCTGCCCTACAAGTACCAGGTGCTGGCGGAGATGTTCCGCAGCATGGACACCATCGTGGGCATGCTC
CACAACCGCTCCGAGACGCCACCTTTGCCAAGGTCCAGCGGGGCGTCCAGGACATGATGCGTAGGCGTTTTGAG
GAGCGCAATGTTGGCCAGATCAAACCGTGTACCCGGCCTCCTACCGCTTCCGCCAGGAGCGCAGTGTCCCCACC
TTCAAGGATGGCGCCAGGAGGTGAGATTACCAGCTCACCATCGAGCCACTGCTGGAGCAGGAGGCTGACGGAGCA
GCCCCCAGCTCACGGCCTCGCGCCTCCTGCAGCGACGGCAGATCTTCAGCCAGAAGCTGGTGGAGCACGTCAAG
GAGCACCACAAGGCCTTCCCTGGCCTCCCTGAGCCCCGCCATGGTGGTGGCGGAGGACCAGCTGACCCGCTGGCAC
CCGCGCTTCAACGTGGATGAAGTACCCGACATCGAGCCGGCCGCGCTGCCCCAGCCACCCGCCACGGAGAAGCTC
ACCACTGCTCAGGAGGTGCTGGCCCCGGGCCCGCAACCTGATTTACCCAGGATGGAGAAGGCCTTGAGTCAATTG
GCCCTGCGCTCTGCTGCGCCAGCAGCCCCGGGTCTCCAGGCCAGCACTGCCGGCTACCCACCCAGCCACCCCCG
CCTGCAGCCTCTCCAGTGCTCTGAAGGGGTGTCCAGGATCTGCTGGAGCGGATCCGAGCCAAGGAGGCACAG
AAGCAGCTGGCACAGATGACGCGGTGCCCGGAGCAGGAGCAGCGGCTGCAGCGCTTAGAACGGCTGCCTGAGCTG
GCCCCGCTGCTGCGGAGCGTCTTTGTGTCCGAACGCAAGCCTGCGCTCAGCATGGAGGTGGCCTGTGCCAGGATG
GTGGGCAGCTGTTGTACTATCATGAGCCCTGGGGAAATGGAGAAGCACCTGCTGCTCCTCTCCGAGCTGCTGCCG
GACTGGCTCAGCCTCCACCGCATCCGCACCGACACCTACGTCAAGCTGGACAAGGCCGCGGACCTGGCCCCACATC
ACTGCACGCCTGGCCCCACCAGACACGTGCTGAGGAGGGGCT**GTGA**GCCTGGGGGCCACTGTGGACAGACGTGGGC
TTCAGAAGCTCGCTGGCCTGGGCCCCACCAGCATTTTCTTTTATGAACATGATACACTTTGGCCTTCCCTTTCCCCA
GCGCCCCCTGAGGGCCAGAGGCAGATGTGGGCTGCAGGCTGCACAGCCCCAGGGTCTCTGGCTGCGGGCGGTGGGC
CCCTTCATGGGGCTCACCTGGTGGATTACATTAAACCGGTTTCTGTGGGCACCTTTGTCTTGGCTGCTGGTGGG
GAAGGGAAGCCAGATCCAGCACCCCTGGGGGGCCATCGGGAGTGTGGCTGGGGGTGAAGGGGGCTCTGTGGCAA
TATGGGGTTGGGTAGTGTGGGTGGCAGGCCATCCCCTCTAATCTTGGAACCTCTGAATATGGGACCTCCCACAGC
AAAGGGTGACTTTTGTCTTAAGAAAGACTGGGGTGGGTGTGGTGGCTCACGCCTGTAACCCAGCACTTTGGGA
GGCCAAGGTGGGCAGATCACGAGGTCAAGAGATCGAGACCATCCTGGCGAACATGGTGAAACCCCATCTCTACTA
AAAATACAAAAAATTAGCCGGGTGTGGTGGTGGGCACCTGTCTGCCAGCTACTAGGGAGGCTGAGGCAGGAGAA
TGGTGTGAACCCAGGAGGCACAGCTTGAGTGAGCGAAGATCGCACCACTGCACGCACTCCAGCCTGGGTGACAG
AGCGAGACTCCGTCTCAAAAAAAAAAATTTCAAGACTGGAGAGGTGATCCTGAATTGTCCAGCTACGCCCCATGT
CATCACAGGGCCTTCATGACAGGGCCAGAGCCAGCCAGCTTTGAAGACGCGGCCCTGCCCCGACACAGGCAGCCT
GGAGAAGCTGGGCAGGACAAGTAGGACATCCCTGGAGCCTCCAGAAGGGACTGGCCTCTGCCACACCTTGACTT
CAGTATTTCTGACCTCCTAAACTCTAATAAAGTCATGCTTACAGCCACTAAAAAAAAAAAAAAAAAAAAAAAAA
AA

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FIGURE 677

MEQRRVTDFFARRRPGPPRIAPPKLACRTPSPARPALRAPASATSGSRKRARPPAAPGRDQARPPARRRLRLSVD
EVSSPSTPEAPDIPACPSPGQKIKKSTPAAGQPPHLTSAQDQDTISELASCLQRARELGARVRALKASAQDAGES
CTPEAEGRPPEPCGEKAPAYQRFHALAQPLGLVLPYKYQVLAEMFRSMDTIVGMLHNRSETPTFAKVQRGVQD
MMRRRFEERNVGQIKTVYPASYRFRQERSVPTFKDGARRSDYQLTIEPLLEQEADGAAPQLTASRLLQRRQIFSQ
KLVEHVKEHHKAFLASLSPAMVVPEDQLTRWHPRFNVDEVDPDIEPAALPQPPATEKLTTAQEVLARARNLISPRM
EKALSQALALRSAAPSSPGSPRPALPATPPATPPAASPSALKGVSQDLLERIRAKEAQKQLAQMTRCPEQEQLQR
LERLPELARVLRVSVFVSEKRPALSMEVACARMVGSCCTIMSPGEMEKHLLLLSELLPDWLSLHRIRTDITYVKLDK
AADLAHITARLAHQTRAEGL

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FIGURE 678

GCTCAGATACGCGACGCGTAGCAGGCGGGGACCGAACGGGTGCCTCAGTGTCTTCCCCTCCCCTCGCCTGGCCT
CGCCGTCTCTCCCCGCAGCCGGACCGGAACATATGTGATCCCGGAAGTTCCGGGGCCTTTGCTGTGTGGGATAAA
CAGTAATGGCGGAGGCTGCAACTCCCGGAACAACAGCCACAACATCAGGAGCAGGAGCGGCAGCGGCGACGGCGG
CAGCAGCCTCCCCCACCCCGATCCCCACAGTCACCGCCCCGTCCCTGGGGGCGGGCGGAGGGGGCGGCGGCAGCG
ACGGCAGCGGCGGCGGCTGGACTAAACAGGTCACCTGCAGGTATTTTATGCATGGGGTTTGTAAAGGAAGGAGACA
ACTGTGCTACTCGCATGACCTCTCTGACAGTCCGTATAGTGTAGTGTGCAAGTATTTTCAGCGAGGGTACTGTA
TTTATGGAGACCGCTGCAGATATGAACATAGCAAACCATTGAAACAGGAAGAAGCAACTGCTACAGAGCTAACTA
CAAAGTCATCCCTTGCTGCTTCCTCAAGTCTCTCATCGATAGTTGGACCACTTGTTGAAATGAATACAGGCGAAC
GTGAGTCAAGAAATTCAAACTTTGCAACTGTAGGAGCAGGTTGAGGAGTGGGTGAATGCTATTGAGTTTGTTT
CTGGGCAACCCTACTGTGGCCGTACTGCGCCTTCCTGCACTGAAGCACCCCTGCAGGGCTCAGTGACCAAGGAAG
AATCAGAGAAAGAGCAAACCGCGTGGAGACAAAGAAGCAGCTGTGCCCCATGCTGCAGTGGGAGAGTGCCGAT
ACGGGGAGAACTGTGTGTATCTCCACGGAGATTCTTGACATGTGTGGGCTGCAGGTCCTGCATCCAATGGATG
CTGCCCAGAGATCGCAGCATATCAAATCGTGCATTGAGGCCCATGAGAAGGACATGGAGCTCTCATTGCGCTCA
GCAGCAAGGACATGGTGTGTGGGATCTGCATGGAGGTGGTCTATGAGAAAGCCAACCCAGTGAGCGCCGCTTCG
GGATCCTCTCCAAC TGCAACCACACCTACTGTCTCAAGTGCATTGCAAGTGGAGGAGTGCTAAGCAATTTGAGA
GCAAGATCATAAAGTGAGACTCCTCCCCAGTCTTCATTTGTGCTTTCTCTTTTGGGGAAGAATTTAGTAACCTGT
GCCAACTTTCAACCAGATGGACCGCATTTAAATGCATGCATTTTATCTTGAAACTGGGATATTCTAATGGGGATT
TCTTCTTTGTATTTAGCTAGCTTCTAGGTTAGTTGGTCTATCTACTTTTATTTGAATGAGGAAACCCTGTGTAT
CAGTTAGAATCTTCGTGCTTTTTCTGAGGAGATTGTGTTAATGGATTATTAGCCAGTTTAGGCTCAGTGAACAA
ACTGATCTAGCTCTGAATGTATGTTTCTGACGTTTTACATTTCCACTTTCCTATTCCATTCAATTAAGCTAGCCA
ACAATCCACCATCCTTTAAAGATTGTTCTCATAACTGAACAAAAACACATAATCTAAACAGAGCAAAGCTACAA
GAAATAAATTTATTTAAACGAAAAAAAAAAAAAA

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FIGURE 679

MAEAATPGTTATTSGAGAAAAATAAASPTPIPTVTAPSLGAGGGGGGSDGSGGGWTKQVTCRYFMHGVCKEGDNC
RYSHDLSDSPYSVVCKYFQRGYCIYGDRCRYEHSKPLKQEEATATELTTKSSLAASSSLSSIVGPLVEMNTGERE
SRNSNFATVGAGSEDWVNAIEFVPGQPYCGRTAPSCTEAPLQGSVTKEESEKEQTAVETKKQLCPYAAVGECRYG
ENCVYLHGDSKCDMCGLQVLHPMDAAQRSQHIKSCIEAHEKDMELSFVSSKDMVCGICMEVVYEKANPSERRFGI
LSNCNHTYCLKCIRKWSAKQFESKIIK

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FIGURE 680

GGCTCGAGTGCCTGGCGGGCTCTGGCTTCCGCGTCCGCCCCCTGCTCCGGCTTCGCCCCGAGCTCCGCGCCCGCGG
GCAACCAAGCCCCCAGCGAAGCCCGCACAGCTCCGGGTGCCAGGACGGGGGGGCC**ATG**CCGTGCCGGAGGGAGGAG
GAAGAGGAAGCCGCGGAGGAGGCGGAGGGGGAGGAAGAGGAGGACGACAGCTTCCTCCTGCTGCAGCAGTCGGTG
ACGCTGGGCAGCTCGGGCGAGGTGGACCGCTGGTGGCCAGATCGGCGAGACGCTGCAGCTGGACGCGGCGCAG
GACAGCCCCGGCTCGCCGTGCGCGCCCCCGGGGTGCCGCTGCGGGCCCCGGGGCCCTGGCTGCGGCGGTGCCG
GCGGACAAGGCCCGGCCCCGGCGGTGCCGCTGCTGCTGCGGCCCGCTTCGGCTGAGACGGTGGGCCCGGCGCCC
TCTGGGGCCCTGCGCTGCGCCCTAGGGGACCGCGGCCCGCTGCGCGGACGCGCTGCGCCCTACTGCGTGGCGGAG
GTCGCCGACGGCCCCAGCGCGCTGCCGGGGCCGTGCCGGCGAGGATGGCTCAGGGACGCGGTACCTCCCCGCCG
TTGCAGCAGCGCCGATGGACCCAAGCCGGGGCACGCGCCGGCGACGACGCCGCATCGGCTCCTCCAGCAGCTC
GTGCTCTCGGGAAACCTCATCAAGGAAGCCGTGCGGAGACTCCAACGAGCCGTGCCGCGGTTGCAGCCACGGGC
CCCCGAAGCGCCCCTGGGCCCGGGGAGGCCGACGCGGACCTGACCGCATTGCCCTGCAGCCCTCAGGCTCCTTG
CTCT**TGA**CGCAGGCCTCCTGGAGGAGGAAGTGGAGGCCGTGCGTAGACCCAACAGCGTCCAGTTCCTACTAACTC
TGAGCTGAAGCCGACGTCGCCAGCCTGGGAGCGACCACTTTGGCTGCGGGGAGGCGCGTGGGGAGAGATCTCAAC
CAGAGAAGTTACCAGCCGCGGCGAGGCCGTGCGGAGAAAACCTTAAGCGTGGAGAAATGTATGCCCAGGGTGCTTC
CGTGGGGCATGAGAATTTCCCGGGCCATCCAAGCCCAAGGACCTGGGATAAACTGGGAGAACTATGGCAGCTACT
TGCATCGACTTGTACCTCACTTAGCCCTTGGGGGCGTCTGTAGCTTGGATTGTTTAAGGAGGGCTCAGGGGTAGG
AATCGCGATGGCTTTATAACAATACTTGAAAACCTAACGACACGCATACATTTTCTTATTTTCTGGTGGAGGAGCT
TAGTAAGTGGTGCTACAATTGCTGTGCAAAGAAATTCAGAGGGGAGAAGAATGTAAAAGTTTGGTGGTGGGTGG
CTTGGCATTGCCCTTTTTCCACCGATTCCGTGGCTGGTGAAGGTGGGAGATGTGAACCTCAATTAAGGGACTG
GAGAGAGGTGAAGAATTTTGCAGGTGGGAGATTTGGATTGAAATGTGGACTTGTAATGACTTGACCTTGCCATC
TGTGTTCAAGGTCACGGTTTGCTGTGGGGTTCTGGGAGAGCTTACTCACCCCGGAGTCTTTTCTTTCTCTTGCT
CCAAGAAGAGCCCTGTTGGTGCTTTACCACCGCTTGGAGTCTCCCGAGGACACAAACAGGCAGAGAGGGACGTGT
AGGGAGAGTTCTTTCTGTTTTCTGTGCTTTCTTTTACAGGACTCCCGGAAGGCCACTCATGGCCATGCCAGG
AGCTTTCTCAGAAACAGTCATAAACGATCTCTTGAGTCTCTTTCTTGCTCTCCAGCTGAGCTTTCTTATTCAC
CCTTTCTGGTGTCTATAGGAATGCATGAGAGACCCTGGACGTTTTTCTGCTCTCTTCTGGCCCTCCATGGAGCCA
TGGGCCTCGGCCTCGGCGGCTCCTCACCTCACAAATTTATTTCTCCTCCCGTGCCAGCCCTTCTTTTGTGTCTG
AAACCGGTTTTAAATGTGACTCTCCAGAGAAGAAGCCGCTGGCTGTATGAACTTGACGGCGCTTTTGTAAGG
TGCCACCCCCAACTTTAAGGTAGCTAAACCAATTTTTAAAGATTCAATGGCTTGTTTCATCCTCCAGATGTAGC
TATTGATGTACACTTCGCAACGGAGTGTCTGAAATTGTGGTGGTCCTGATTTATAGGATTTTCA

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FIGURE 681

MPCRREEEEEAGEEAEGEEEEEDDSFLLLQQSVTLGSSGEVDRLVAQIGETLQLDAAQDSPASPCAPPGVPLRAPG
PLAAAVPADKARPPAVPLLLPPASAETVGPAPSGALRCALGDRGRVRGRAAPYCVAEVAAGPSALPGPCRRLR
DAVTSRRLQRRWTQAGARAGDDDPHRLQLVLSGNLIKEAVRRLQRAVAAVAATGPASAPGPGGGRSGPDRIA
LQPSGSLL

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FIGURE 682

ATGGCTGTGTGAACGACTGCC**ATG**GCCCCACCGGAAGCTTGAGAGCGTGGGGAGCGGCATGTTGGACCATAGGGTG
AGACCAGGTCCTGTCCCTCACAGCCAGGAGCCCCGAGAGCGAGGACATGGAGCTGCCCTTGGAGGGCTATGTGCCC
GAGGGCCTGGAGCTGGCTGCCCTGCGGCCAGAGAGCCCCGCGCCAGAGGAACAGGAGTGCCACAACCACAGCCCC
GATGGGGACTCCAGCTCTGACTACGTGAACAACACCTCTGAGGAGGAGGACTATGACGAGGGCCTCCCTGAGGAG
GAGGAGGGCATCACCTACTACATCCGCTACTGCCCTGAGGACGACAGCTACCTAGAGGGCATGGACTGCAACGGG
GAGGAGTACCTGGCCCCACAGTGCACACCCTGTGGACACTGATGAATGCCATGAGGCGGTGGAGGAGTGGACGGAC
TCGGCGGGCCCCGACCCCCACGGCCACGAGGCTGAAGGCAGCCAGGACTACCCAGACGGCCAACCTGCCATTCCG
GAGGATGAGCCCTCCGTCCCTGAGGCCCCATGACCAGGAAGAAGATGGTCACTACTGTGCCAGCAAAGAGGGCTAC
CAGGACTACTACCCAGAGGAGGCCAACGGGAACACCGCGCCTCCCCCTACCGCCTGAGGCGTGGGGATGGGGAC
CTGGAGGACCAGGAGGAGGACATTGACCAGATCGTGGCAGAGATCAAGATGAGTCTGAGCATGACCAGCATCACC
AGCGCCAGTGAGGCCAGCCCCGAGCATGGGCCTGAGCCAGGGCCTGAGGACTCTGTAGAGGCCTGCCACCCATC
AAGGCCAGCTGCAGCCCCAGCAGGCACGAGGCGAGGCCCAAGTCGCTGAACCTCCTTCCCGAGGCCAAGCACCCC
GGAGACCCCCAGAGAGGCTTCAAGCCCAAGACCAGGACCCCCAGAAGAGAGGGCTGAAGTGGCCCCACGAGCAGGTT
TGCAATGGTCTGGAGCAGCCAAGGAAGCAGCAGCGCTCTGATCTCAATGGACCTGTTGACAATAACAACATTCCA
AAAACAAAAAAGGTGGCATCATTTCCAAGTTTGGTGGCTGTTCCAGGGCCCCTGCAACCAAAAAACCTCATCGAC
GGGATCATCTTTGCTGCCAATTACCTGGGGTCCACCCAGCTGCTATCAGAACGGAACCCCTTCCAAAAACATCAGA
ATGATGCAAGCGCAGGAGGCCGTGAGCCGGGTCAAGAGGATGCAAAAAGGCTGCTAAGATCAAGAAAAAAGCGAAT
TCTGAGGGGGATGCCCAGACGCTGACGGAAGTGGACCTCTTCATTTCCACCCAGAGGATCAAGGTTTTAAATGCA
GACACGCAGGAAACCATGATGGACCACGCCTTGCGTACCATCTCCTACATCGCCGACATTGGGAACATTGTAGTG
CTGATGGCCAGACGCCGCATGCCCGGTGAGCCTCTCAGGACTGCATCGAGACCACGCCCGGGGCCAGGAAGGC
AAGAAGCAGTATAAGATGATCTGCCATGTGTTTCGAGTCGGAGGATGCCCAGCTCATCGCCAGTCTATCGGCCAG
GCCTTCAGCGTGGCCTACCAGGAGTTCTGCGAGCCAATGGCATCAACCCCGAAGACTTGAGCCAGAAGGAATAC
AGCGACATCATCAACACCCAGGAGATGTACAACGACGACCTCATCCACTTCTCAAACCTCGGAGAACTGCAAGGAG
CTGCAGCTGGAGAAGCACAAGGGCGAGATCCTGGGCGTGGTGGTGGTGGAGTCGGGCTGGGGCTCCATCCTGCCC
ACGGTGATCCTGGCCAACATGATGAATGGCGGCCCGGCTGCCCGCTCGGGGAAGCTGAGCATCGGGGACCAGATC
ATGTCCATCAATGGCACCAGCCTGGTGGGGCTGCCCTCGCCACCTGCCAAGGCATCATCAAGGGCCTGAAGAAC
CAGACACAGGTGAAGCTCAACATTGTGAGCTGTCCCCGGTCAACACGGTCCTTATCAAGCGGCCAGACCTCAAG
TACCAGCTGGGCTTCAGCGTGAGAATGGAATTATCTGCAGCCTCATGAGAGGGGGCATTGCTGAGCGAGGGGGC
GTCCGTGTGGGCCACCGCATCATCGAGATCAACGGGCAGAGCGTGGTGGCCACAGCCCACGAGAAGATAGTCCAA
GCTCTGTCCAACCTCGGTGCGAGAGATCCACATGAAGACCATGCCCGCCGCCATGTTAGGCTCCTCACGGGTCAG
GAGACCCCGCTGTACATC**TAG**GCCACCCACGCTGGCCACGCAGCCAGGACACCGGGCAGGGCCGCCCGGGCCCCA
GAGGAGCTGGGAGCCGGGCGCAGACTTGACCCGACGCCACAGCCCAGCCACGGACGCTGGCTCCCCAAAGGGT
GTGCCCTCACCACCCACTTGATTTTTTTTCATTTTTGCCAAAAAGGGGTATGTCTTTATCAAAGGAGAGTCACAGAA
CAAATGTTTGTGTTGTAAAGCGTTCCAAGTATTTTGCCACGTTCTGGACTGTCTTCTCCCTGCACAAGCCAGGGTG
TGTCTCGGTAGCTGTGCGTGGTGTGGAGTGTGTGCTTTCTCCCTGAAGCTGTGCGGAGCGAACTGGCGCCTCC
GAGGGACGCGGCTCCCGGGGCAGGGCAGCCGTACCCCTGCCTCCCGCCCCCTTGGCTGGGACGTCTGGGGTCTT
GTGGGGCCCCCAATGGTCCCAAACAGCTGCCTCTGCCACTGACTGCAGGGACACGGGCAGCCTGGCTCCCAGG
ACACGACTTGTAATGAAAGTTTGGGGACATGTGATTGATTGATTGATTGATTGTAATAAAGGATGATGGCCACA
ACATGAAAACCTCCATATTTATTTAGATGCTATTATTACTGTTTGGACTTTTATTTTGGCAGGCTTTTTTCCAGAC
TCTAGGGTTTTCCAATGTGACTAATGACCACACCTGCCTCTCCCGTCGTCTCTCTGGGCACCCCTCCCACCCGGC
TGCATACCCGGCCAGGGCTCCACAGAGACAAGGAXGGCACAGGTGTCTGCCCCCTCTTTAAATCGATCTACAC
ACATCCACGCACATGCGACCCCGAGGGAAACGAAACCCACTCTAGAAAACGCGACCTTGGCCGCACCTAAAGCAG
CCAGCCGTGAGTGACAGACCCCTTGGCCAGCGTGGCGCAGTGGCCCTGAGCAGTAGTGGCATGTGTGTAGATCAAG
TCGGATCTAGTCCAGCTCGGTTCAATAGCGATCCATGTAATCTGACGTCATCTTGTCTCGAAGTCTCTTTTTTGT
GCCCAGGCCTTGAAGAATACACTGTGACTTAAGAAGCCTTACCACGCAGTAACTAAAGCTTTAGGATGACTGTAT
TCGAGGAGTGCCGTGTGTTGCATGCAGCTACCCGTAGGAAGACTTCGCGCATATCACTAATAAACCTGAAGTCGT
GATGACC

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FIGURE 683

MAHRKLESVSGMLDHRVRPGVPVPHSQEPESDMELPLEGYVPEGLELAALRPESPAPEEQECHNHSPDGDSSSD
YVNNTSEEEDYDEGLPEEEEGITYYIRYCPEDDSYLEGMDCNAGEEYLAHSAHPVDTDECHEAVEEWTD SAGPHPH
GHEAEGSQDYDPDQQLPIPEDEPSVLEAHDQEEDGHYCASKEGYQDYYPEEANGNTGASPYRLRRGDGDLEDQEED
IDQIVAEIKMSLSMTSITSASEASPEHGPEPGPEDSVEACPPIKASCSPSRHEARPKSLNLLPEAKHPGDPQRGF
KPKTRTPPEERLKWPHQVCNGLEQPRKQQRSDLNGPVDNNNIPKTKKVASFP SLVAVPGPCEPKNLIDGIIFAAH
YLGSTQLLSERNP SKNIRMMQAQEAVSRVKRMQKAAKIKKKANSEGDAQTLTEVDLFISTQRIKVLNADTQETMM
DHALRTISYIADIGNIVVLMARRRMPRSASQDCIETTPGAQEGKKQYKMICHVFESEDAQLIAQSIGQAFSVAYQ
EFLRANGINPEDLSQKEYSDIINTQEMYNDLIHFSNSENCKELQLEKHKGEILGVVVVESGWGSILPTVILANM
MNGGPAARSGKLSIGDQIMSINGTSLVGLPLATCQGIKGLKNQTQVKLNIVSCPPVTTVLIKRPDLKYQLGFSV
QNGIICSLMRGGIAERGGVRVGHRIEINGQSVVATAHEKIVQALSNSVGEIHMKTMPAAMFRLLTGQETPLYI

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FIGURE 684

TTTTTGCAACCAACATGGTTCTATTAAAACTCTCTTTGACTATGGCATTCAAGGACAGCAATACAATCTTTTTT
TTTTTAACAAAGCAACTAATATAAAAAATCTGCAAATGCCATATATTCATATCTAGGCTATTCTTCTCATATAGG
CATGTCATTAGATAGACTTTCTTTCTATTCTTTCCTGAGGATTTTTTTGTGGTTTACTTTTATTGTACTGCTGG
ATGCATTATTTTTGATCATCCTTTCCTAAAAATGATTTAAAGACCTGCAAATAATTTTATTGCATAGGACACTATT
GATGACACATAGAATGGGAGCTGCAAGTATGTGGCATTGGAACAAGCCTTACAAATATTGCATTTTAAGAATACA
CACATTTTTTACAGTTTGTCTCTTTTAAAAAATTTGAAGTTATAGC

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FIGURE 685A

CCTACTCTATTTCAGATATTCTCCAGATTCTAAAGATTAGAGATCATTTCTCATTCTCCTAGGAGTACTCACTTC
 AGGAAGCAACCAGATAAAAGAGAGGTGCAACGGAAGCCAGAACATTCTCTGGAAATTCAACCTGTTTCGCAGT
 TTCTCGAGGAATCAGCATTCAAGTCAATCCGGGCCGGGAGCAGTCATCTGTGGTGAGGCTGATTGGCTGGGCAGGA
 ACAGCGCCGGGGCGTGGGCTGAGCACAGCGCTTCGCTCTCTTTGCCACAGGAAGCCTGAGCTCATTTCAGTAGCG
 GCTCTTCCAAGCTCAAAGAAGCAGAGGCCGCTGTTTCGTTTCTTTAGGTCTTTCCACTAAAGTCGGAGTATCTTC
 TTCCAAGATTTACGTCTTGGTGGCCGTTCCAAGGAGCGGAGGTCTGGGATGGATCTTGAAGGGGACCGCAATGG
 AGGAGCAAAGAAGAAGAACTTTTTTAACTGAACAATAAAAGTGAAAAAGATAAGAAGGAAAAGAAACCAACTGT
 CAGTGTATTTTCAATGTTTCGCTATTCAAATTGGCTTGACAAGTTGTATATGGTGGTGGGAACCTTTGGCTGCCAT
 CATCCATGGGGCTGGACTTCCTCTCATGATGCTGGTGTGTTGGAGAAATGACAGATATCTTTGCAAATGCAGGAAA
 TTTAGAAGATCTGATGTCAAACATCACTAATAGAAGTGATATCAATGATACAGGGTTCTTCATGAATCTGGAGGA
 AGACATGACCAGGTATGCCTATTATTACAGTGAATTGGTGCTGGGGTGCTGGTTGCTGCTTACATTACAGGTTTC
 ATTTTGGTGCTGGCAGCTGGAAGACAAATACACAAAATTAGAAAACAGTTTTTTTCATGCTATAATGCGACAGGA
 GATAGGCTGGTTTGTATGTGCACGATGTTGGGGAGCTTAACACCCGACTTACAGATGATGTCTCCAAGATTAATGA
 AGGAATTGGTGACAAAATTGGAATGTTCTTTTCAGTCAATGGCAACATTTTTTCACTGGGTTTATAGTAGGATTTAC
 ACGTGGTTGGAAGCTAACCCCTGTGATTTTGGCCATCAGTCCTGTTCTTGGACTGTCAGCTGCTGTCTGGGCAAA
 GATACTATCTTCATTTACTGATAAAGAAGCTTTAGCGTATGCAAAAGCTGGAGCAGTAGCTGAAGAGGTCTTGGC
 AGCAATTAGAAGTGTGATTGCATTTGGAGGACAAAAGAAAGAACTTGAAAGGTACAACAAAATTTAGAAGAAGC
 TAAAAGAATTGGGATAAAGAAAGCTATTACAGCCAATATTTCTATAGGTGCTGCTTTTCTGCTGATCTATGCATC
 TTATGCTCTGGCCTTCTGGTATGGGACCACCTTGGTCTCTCAGGGGAATATTCTATTGGACAAGTACTCACTGT
 ATTTTCTGTATTAATTGGGGCTTTTAGTGTTGGACAGGCATCTCCAAGCATTGAAGCATTTGCAAATGCAAGAGG
 AGCAGCTTATGAAATCTTCAAGATAATTGATAATAAGCCAAGTATTGACAGCTATTGCAAGAGTGGGCACAAACC
 AGATAATATTAAGGGAAATTTGGAATTCAGAAATGTTCACTTCAGTTACCCATCTCGAAAAGAAGTTAAGATCTT
 GAAGGGTCTGAACCTGAAGGTGCAGAGTGGGCAGACGGTGGCCCTGGTTGGAACAGTGGCTGTGGGAAGAGCAC
 AACAGTCCAGCTGATGCAGAGGCTCTATGACCCACAGAGGGGATGGTCAGTGTGATGGACAGGATATTAGGAC
 CATAAATGTAAGGTTTCTACGGGAAATCATTGGTGTGGTGAGTCAGGAACCTGTATTGTTTGCCACCACGATAGC
 TGAAAACATTGCTATGGCCGTGAAAATGTACCATGGATGAGATTGAGAAAGCTGTCAAGGAAGCCAATGCCTA
 TGACTTTATCATGAAACTGCCTCATAAATTTGACACCCTGGTTGGAGAGAGAGGGGGCCAGTTGAGTGGTGGGCA
 GAAGCAGAGGATCGCCATTGCACGTGCCCTGGTTTCGCAACCCCAAGATCCTCCTGCTGGATGAGGCCACGTCAGC
 CTTGGACACAGAAAGCGAAGCAGTGGTTTCAGGTGGCTCTGGATAAGGCCAGAAAAGGTGCGACCACCATTGTGAT
 AGCTCATCGTTTGTCTACAGTTTCGTAATGCTGACGTCATCGCTGGTTTCGATGATGGAGTCATTGTGGAGAAAGG
 AAATCATGATGAACCTCATGAAAGAGAAAGGCATTTACTTCAAACCTTGTCACAATGCAGACAGCAGGAAATGAAGT
 TGAATTAGAAAATGCAGCTGATGAATCCAAAAGTGAAATTGATGCCTTGGAAATGTCTTCAAATGATTCAAGATC
 CAGTCTAATAAGAAAAGATCAACTCGTAGGAGTGTCCGTGGATCACAAGCCCAAGACAGAAAGCTTAGTACCAA
 AGAGGCTCTGGATGAAAGTATACCTCCAGTTTCTTTTGGAGGATTATGAAGCTAAATTTAACTGAATGGCCTTA
 TTTTGTGTTGGTGTATTTTGTGCCATTATAAATGGAGGCCTGCAACCAGCATTGTGCAATAATATTTTCAAAGAT
 TATAGGGGTTTTTACAAGAATTGATGATCCTGAAACAAAACGACAGAATAGTAACCTTGTTTTTCACTATTGTTTCT
 AGCCCTTGGAATTATTTCTTTTATTACATTTTCTTTCAGGGTTTCACATTTGGCAAAGCTGGAGAGATCCTCAC
 CAAGCGGCTCCGATACATGGTTTTCCGATCCATGCTCAGACAGGATGTGAGTTGGTTTGATGACCCTAAAAACAC
 CACTGGAGCATTGACTACCAGGCTCGCCAATGATGCTGCTCAAGTTAAAGGGCTATAGGTTCCAGGCTTGCTGT
 AATTACCCAGAATATAGCAAATCTTGGGACAGGAATAATTATATCCTTCATCTATGGTTGGCAACTAACACTGTT
 ACTCTTAGCAATTGTACCCATCATTGCAATAGCAGGAGTTGTTGAAATGAAAATGTTGTCTGGACAAGCACTGAA
 AGATAAGAAAAGAACTAGAAGGTGCTGGGAAGATCGCTACTGAAGCAATAGAAAACCTCCGAACCGTTGTTTCTTT
 GACTCAGGAGCAGAAGTTTGAACATATGTATGCTCAGAGTTTGCAGGTACCATACAGAACTCTTTGAGGAAAGC
 ACACATCTTTGGAATTACATTTTCTTTCACCCAGGCAATGATGTATTTTCTATGCTGGATGTTTCCGGTTTGG
 AGCCTACTTGGTGGCACATAAACTCATGAGCTTTGAGGATGTTCTGTAGTATTTTTCAGCTGTTGTCTTTGGTG
 CATGGCCGTGGGGCAAGTCAGTTTCAATTTGCTCCTGACTATGCCAAAGCCAAAATATCAGCAGCCACATCATCAT
 GATCATTGAAAAAACCCCTTTGATTGACAGCTACAGCACGGAAGGCCTAATGCCGAACACATTGGAAGGAAATGT
 CACATTTGGTGAAGTTGTATTCAACTATCCCAACCCGACCGGACATCCAGTGCTTCAGGGACTGAGCCTGGAGGT

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FIGURE 685B

GAAGAAGGGCCAGACGCTGGCTCTGGTGGGCAGCAGTGGCTGTGGGAAGAGCACAGTGGTCCAGCTCCTGGAGCG
 GTTCTACGACCCCTTGGCAGGGAAAGTGCTGCTTGATGGCAAAGAAAATAAAGCGACTGAATGTTAGTGGCTCCG
 AGCACACCTGGGCATCGTGTCCCAGGAGCCCATCCTGTTTGACTGCAGCATTGCTGAGAACATTGCCTATGGAGA
 CAACAGCCGGGTGGTGTACAGGAAGAGATTGTGAGGGCAGCAAAGGAGGCCAACATACATGCCTTCATCGAGTC
 ACTGCCTAATAAATATAGCACTAAAGTAGGAGACAAAGGAACCTCAGCTCTCTGGTGGCCAGAAACAACGCATTGC
 CATAGCTCGTGCCCTTGTTAGACAGCCTCATATTTTGCTTTTGGATGAAGCCACGTCAGCTCTGGATACAGAAAG
 TGAAAAGGTTGTCCAAGAAGCCCTGGACAAAGCCAGAGAAGGCCGCACCTGCATTGTGATTGCTCACCGCCTGTC
 CACCATCCAGAATGCAGACTTAATAGTGGTGTTCAGAATGGCAGAGTCAAGGAGCATGGCACGCATCAGCAGCT
 GCTGGCACAGAAAGGCATCTATTTTTCAATGGTCAGTGTCCAGGCTGGAACAAAGCGCCAGTGAACCTCTGACTGT
 ATGAGATGTTAAATACTTTTTAATATTTGTTTAGATATGACATTTATTCAAAGTTAAAAGCAAACACTTACAGAA
 TTATGAAGAGGTATCTGTTTAACATTTCCCTCAGTCAAGTTCAGAGTCTTCAGAGACTTCGTAATTAAAGGAACAG
 AGTGAGAGACATCATCAAGTGGAGAGAAATCATAGTTTAAACTGCATTATAAATTTTATAACAGAATTAAAGTAG
 ATTTTAAAAGATAAAATGTGTAATTTTGTTTATATTTTCCCATTTGGACTGTAACCTGACTGCCTTGCTAAAAGAT
 TATAGAAGTAGCAAAAAGTATTGAAATGTTTGCATAAAGTGTCTATAATAAACTAACTTTTCATGTG

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FIGURE 686

MDLEGDRNGGAKKKNFFKLNNKSEKDKKEKKPTVSVFSMFRYSNWLDKLYMVVGTAAIIHGAGLPLMMLLVFGEM
 TDIFANAGNLEDLMSNITNRSNDINDTGFFMNLEEDMTRYAYYYSGIGAGVLVAAYIQVSFWCLAAGRQIHKIRKQ
 FFHAIMRQEIGWFDVHDVGELNTRLTDDVSKINEGIGDKIGMFFQSMATFFTGFIVGFTRGWKLTLLVILAI SPVL
 GLSAAVWAKILSSFTDKELLAYAKAGAVAAEEVLAAIRTVIAFGGQKKELERYNKNLEEAKRIGIKKAITANISIG
 AAFLLIYASYALAFWYGTTLVLSGEYSIGQVLTVFSVLIGAFSVGQASPSIEAFANARGAAYEIFKIIDNKPSID
 SYSKSGHKPDNIKGNLEFRNVHFSYPSRKEVKILKGLNLKVQSGQTVALVGNSGCGKSTTVQLMQRLYDPTEGMV
 SVDGQDIRTINVRFLEIIGVVSQEPVLFATTIAENIRYGRENVMTDEIEKAVKEANAYDFIMKLPHKFDTLVGE
 RGAQLSGGQKQRIAIARALVRNPKILLLDEATSALDTESEAVVQVALDKARKGRTTIVIAHRLSTVRNADVIAGF
 DDGVIVEKGNHDELMKEKGIYFKLVMTQTAGNEVELENAADESKSEIDALEMSSNDSRSSLIRKRSTRRSVRGSQ
 AQDRKLSTKEALDESIPPVSFWRIMKLNLTWPYFVVGVFCAIINGGLQPAFAIIFSIIIGVFTRIDDPETKRQ
 SNLFSLLFLALGIIISFITFFLQGFTFGKAGEILTKRLRYMVFRSMLRQDVSWFDDPKNTTGALTTRLANDAAQVK
 GAIGSRLAVITQNIANLGTGIIISFIYGWQLTLLLLAIVPIIAIAGVEMKMLSGQALKDKKELEGAGKIA TEAI
 ENFRTVVSLTQEQQFEHMYAQSLOVPYRNSLRKAHIFGITFSFTQAMMYFSYAGCFRFGAYLVAKHKLMSFEDVLL
 VFSVVFGAMAVGQVSSFAPDYAKAKISAAHIIMIIEKTPLIDSYSTEGLMPNTLEGNTVFGEVVFNYPTRPDIP
 VLQGLSLEVKKGQTLALVGSSGCGKSTVVQLLERFYDPLAGKVLLDGKEIKRLNVQWLRHLGIVSQEPILFDCS
 IAENIAYGDNSRVVSQEEIVRAAKEANIHA FIESLPNKYSTKVGDKGTQLSGGQKQRIAIARALVRQPHILLDE
 ATSALDTESEKVVQEALDKAREGRTCIVIAHRLSTIQNADLIVVFQNGRVKEHGTHQQLLAQKGIYFSMVSVQAG
 TKRQ

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FIGURE 687

GGCAGCTGCACGGCTCCTGGCCCCGGAGCATGCGCGAGAGCCGCCCCGGAGCGCCCCGGAGCCCCCGCCGTCCC
GCCCCGGGCGTCCCGCGCCCCGCCGCCAGCGCACCCCCGGACGCTATGGCCCACCCCTCCGGCTGGCCCCCTTCTG
TAGG**ATGG**TAGCACACAACCAGGTGGCAGCCGACAATGCAGTCTCCACAGCAGCAGAGCCCCGACGGCGGCCAGA
ACCTTCCTCCTCTTCCTCCTCCTCGCCCGCGCCCCCGCGCGCCCCGGCGCGTGCCTCCCGCGGTCCCGGCCCGGC
CCCCGGCGACACGCACATTCCGCACATTCCGTTTCGCACGCCGATTACCGGCGCATCACGCGCGCCAGCGCGCTCCT
GGACGCCTGCGGATTCTACTGGGGGGCCCTGAGCGTGCACGGGGCGCACGAGCGGTGCGCGCCGAGCCCGTGGG
CACCTTCCTGGTGC GCGACAGCCGCCAGCGGAAGTGCCTTTTCGCCCTTAGCGTGAAGATGGCTCGGGACCCAC
GAGCATCCGCGTGCACTTTCAGGCCGGCCGCTTTCACCTGGATGGCAGCCGCGAGAGCTTCGACTGCCTCTTCGA
GCTGCTGGAGCACTACGTGGCGGGCGCCGCGCCGATGCTGGGGGCCCCGCTGCGCCAGCGCCGCGTGCGGCCGCT
GCAGGAGCTGTGCCGCCAGCGCATCGTGGCCACCGTGGGCGCGAGAACCTGGCTCGCATCCCCCTCAACCCCGT
CCTCCGCGACTACCTGAGCTCCTTCCCCTTCCAGATT**TGAC**CGGCAGCGCCCCGCCGTGCACGCAGCATTAACTGG
GATGCCGTGTTATTTTGTATTACTTGCCTGGAACCATGTGGGTACCCTCCCCGGCCTGGGTTGGAGGGAGCGGA
TGGGTGTAGGGGCGAGGCGCTCCCGCCCTCGGCTGGAGACGAGGCCGAGACCCCTTCTCACCTCTTGAGGGGG
TCCTCCCCCTCCTGGTGCTCCCTCTGGGTCCCCCTGGTTGTTGTAGCAGCTTAACTGTATCTGGAGCCAGGACCT
GAACTCGCACCTCCTACCTCTTCATGTTTACATATAACCCAGTATCTTTGCACAAACCAGGGGTTGGGGGAGGGTC
TCTGGCTTTATTTTCTGCTGTGCAGAATCTATTTTATATTTTAAAGTCAGTTTAGGTAATAAACTTTATTA
TGAAAGTTTTTTTTTT

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FIGURE 688

MVAHNQVAADNAVSTAAEPRRRPEPSSSSSSPAAPARPRPCPAVPAPAPGDTHFRTFRSHADYRRITRASALLD
ACGFYWGPLSVHGAHERLRAEPVGTFLVRDSRQRNCFALSVKMASGPTSIRVHFQAGRFHLDGSRESFDCLFEL
LEHYVAAPRRMLGAPLRQRRVRPLQELCRQRIVATVGRENLARIPLNPLVLRDYLSSFPFQI

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FIGURE 689

GGCAGCTGCACGGCTCCTGGCCCCGGAGCATGCGCGAGAGCCGCCCCGGAGCGCCCCGGAGCCCCCGCCGTCCC
GCCCCGCGGCGTCCCGCGCCCCGCCGCGCAGCGACCCCCGGACGCTATGGCCACCCCTCCGGCTGGCCCCCTTCTG
TAGGATGGTAGCACACAACCAGGTGGCAGCCGACAATGCAGTCTCCACAGCAGCAGAGCCCCGACGGCGGCCAGA
ACCTTCCTCCTCTTCTCCTCCTCGCCCCGCGGCCCCCGCGCGCCCCGCGGCCGTGCCCCGCGGTCCCGGCCCGGC
CCCCGGCGACACGCACTTCCGCACATTCCGTTTCGCACGCCGATTACCGGCGCATCACGCGCGCCAGCGCGCTCCT
GGACGCCTGCGGATTCTACTGGGGGCCCTGAGCGTGCACGGGGCGCACGAGCGGCTGCGCGCCGAGCCCGTGGG
CACCTTCCTGGTGC GCGACAGCCGCCAGCGGAAGTGTCTTTTCGCCCTTAGCGTGAAGATGGCCTCGGGACCCAC
GAGCATCCGCGTGCACCTTCAGGCCGGCCGCTTTACCTGGATGGCAGCCGCGAGAGCTTCGACTGCCTCTTCGA
GCTGCTGGAGCACTACGTGGCGGCGCCGCGCCGATGCTGGGGGCCCCGCTGCGCCAGCGCCGCGTGGGCCGCT
GCAGGAGCTGTGCCGCCAGCGCATCGTGGCCACCGTGGGCCGCGAGAACCTGGCTCGCATCCCCCTCAACCCCGT
CCTCCGCGACTACCTGAGCTCCTTCCCCTTCCAGATTTGACCGGCAGCGCCCGCCGTGCACGCAGCATTAACTGG
GATGCCGTGTTATTTTGTTATTACTTGCCCTGGAACCATGTGGGTACCCTCCCCGGCCTGGGTGGAGGGAGCGGA
TGGGTGTAGGGGCGAGGCGCCTCCCGCCCTCGGCTGGAGACGAGGCCGAGACCCCTTCTCACCTCTTGAGGGGG
TCCTCCCCCTCCTGGTGCTCCCTCTGGGTCCCCCTGGTTGTTGTAGCAGCTTAACTGTATCTGGAGCCAGGACCT
GAACTCGCACCTCCTACCTCTTCATGTTTACATATACCCAGTATCTTTGCACAAACCAGGGGTGGGGGAGGGTC
TCTGGCTTTATTTTTCTGCTGTGCAGAAATCCTATTTTATATTTTTTAAAGTCAGTTTAGGTAATAAACTTTATTA
TGAAAGTTTTTTTTTT

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FIGURE 690

MVAHNQVAADNAVSTAAEPRRRPEPSSSSSSSPAAPARPRPCPAVPAPAPGDTHFRTFRSHADYRRITRASALLD
ACGFYWGPLSVHGAHERLRAEPVGTFLVRDSRQRNCFALSVKMASGPTSIRVHFQAGRFHLDGSRESFDCLFEL
LEHYVAAPRRMLGAPLRQRRVRPLQELCRQRIVATVGRENLARIPLNPLRDLSSFPFQI

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FIGURE 691A

ATGGCTGGCGGAGCCTGGGGCCGCCTGGCCTGTTACTTGGAGTTCTGAAGAAGGAGGAGCTGAAGGAGTTCCAG
CTTCTGCTCGCCAATAAAGCGCACTCCAGGAGCTCTTCGGGTGAGACACCCGCTCAGCCAGAGAAGACGAGTGGC
ATGGAGGTGGCCTCGTACCTGGTGGCTCAGTAIGGGGAGCAGCGGGCCTGGGACCTAGCCCTCCATACCTGGGAG
CAGATGGGGCTGAGGTCACTGTGCGCCCAAGCCAGGAAGGGGAGGCCACTCTCCCTCATTCCCTACAGCCCA
AGTGAACCCACCTGGGGTCTCCAGCCAACCCACCTCCACCGCAGTGCTAATGCCCTGGATCCATGAATTGCCG
GCGGGGTGCACCCAGGGCTCAGAGAGAAGGGTTTTGAGACAGCTGCCTGACACATCTGGACGCCGCTGGAGAGAA
ATCTCTGCCTCACTCCTCTACCAAGCTCTTCCAAGCTCCCCAGACCATGAGTCTCCAAGCCAGGAGTCACCCAAC
GCCCCACATCCACAGCAGTGCTGGGGAGCTGGGGATCCCCACCTCAGCCCAGCCTAGCACCCAGAGAGCAGGAG
GCTCCTGGGACCCAATGGCCTCTGGATGAAACGTCAGGAATTTACTACACAGAAATCAGAGAAAGAGAGAGAGAG
AAATCAGAGAAAGGCAGGCCCCCATGGGCAGCGGTGGTAGGAACGCCCCACAGGCGCACACCAGCCTACAGCCC
CACCACCACCCATGGGAGCCTTCTGTGAGAGAGAGCCTCTGTTCCACATGGCCCTGGAAAAATGAGGATTTTAAC
CAAAAATTACACAGCTGCTACTTCTACAAAGACCTCACCCAGAAGCCAAGATCCCCCTGGTCAAGAGAAGCTGG
CCTGATTATGTGGAGGAGAATCGAGGACATTTAATTGAGATCAGAGACTTATTTGGCCCAGGCCTGGATACCCAA
GAACCTCGCATAGTCATACTGCAGGGGGCTGCTGGAATTGGGAAGTCAACACTGGCCAGGCAGGTGAAGGAAGCC
TGGGGGAGAGGCCAGCTGTATGGGGACCGCTTCAGCATGTCTTCTACTTCAGCTGCAGAGAGCTGGCCCAGTCC
AAGGTGGTGAGTCTCGCTGAGTCTATCGGAAAAGATGGGACAGCCACTCCGGCTCCCATTAGACAGATCCTGTCT
AGGCCAGAGCGGCTGCTCTTCATCCTCGATGGTGTAGATGAGCCAGGATGGGTCTTGCAGGAGCCGAGTTCTGAG
CTCTGTCTGCACTGGAGCCAGCCACAGCCGGCGGATGCACTGCTGGGCAGTTTGCTGGGGAAAACATACTTCCC
GAGGCATCCTTCTGATCACGGCTCGGACCACAGCTCTGCAGAACCTCATTCCTTCTTTGGAGCAGGCACGTTGG
GTAGAGGTCTGGGGTTCTCTGAGTCCAGCAGGAAGGAATATTTCTACAGATATTTACAGATGAAAGGCAAGCA
ATTAGAGCCTTTAGGTTGGTCAAATCAAACAAGAGCTCTGGGCCCTGTGTCTTGTGCCCTGGGTGTCCTGGCTG
GCCTGCACTTGCCTGATGCAGCAGATGAAGCGGAAGGAAAACTCACACTGACTTCCAAGACCACCACAACCCTC
TGTCTACATTACCTTGCCCAGGCTCTCCAAGCTCAGCCATTGGGACCCCAGCTCAGAGACCTCTGCTCTCTGGCT
GCTGAGGGCATCTGGCAAAAAAAGACCCTTTTTCAGTCCAGATGACCTCAGGAAGCATGGGTTAGATGGGGCCATC
ATCTCCACCTTCTTGAAGATGGGTATTCTTCAAGAGCACCCCATCCCTCTGAGCTACAGCTTCATTACCTCTGT
TTCCAAGAGTTCTTTGCAGCAATGTCCTATGTCTTGGAGGATGAGAAGGGGAGAGGTAACATTCTAATTGCATC
ATAGATTTGGAAAAAGACGCTAGAAGCATATGGAATACATGGCCTGTTTGGGGCATCAACCACACGTTTCTATTG
GGCCTGTTAAGTGATGAGGGGGAGAGAGAGATGGAGAACATCTTTCACTGCCGGCTGTCTCAGGGGAGGAACCTG
ATGCAGTGGGTCCCGTCCCTGCAGCTGCTGCTGCAGCCACACTCTCTGGAGTCCCTCCACTGCTTGTACGAGACT
CGGAACAAAACGTTCCCTGACACAAGTGATGGCCATTTTGAAGAAATGGGCATGTGTGTAGAAACAGACATGGAG
CTCTTAGTGTGCACTTTCTGCATTAAATTACCCGCCACGTGAAGAAGCTTCAGCTGATTGAGGGCAGGCAGCAC
AGATCAACATGGAGCCCCACCATGGTAGTCTGTTTCAAGTGGGTCCCAGTCACAGATGCCTATTGGCAGATTCTC
TTCTCCGTCTCAAGGTACCCAGAAACCTGAAGGAGCTGGACCTAAGTGAAACTCGCTGAGCCACTCTGCAGTG
AAGAGTCTTTGTAAGACCCTGAGACGCCCTCGCTGCCTCCTGGAGACCCTGCGGTTGGCTGGCTGTGGCCTCACA
GCTGAGGACTGCAAGGACCTTGCCTTTGGGCTGAGAGCCAACCAGACCCTGACCGAGCTGGACCTGAGCTTCAAT
GTGCTCACGGATGCTGGAGCCAAACACCTTTGCCAGAGACTGAGACAGCCGAGCTGCAAGCTACAGCGACTGCAG
CTGGTCAGCTGTGGCCTCACGTCTGACTGCTGCCAGGACCTGGCCTCTGTGCTTAGTGCCAGCCCCAGCCTGAAG
GAGCTAGACCTGCAGCAGAACAAACCTGGATGACGTTGGCGTGCGACTGCTCTGTGAGGGGCTCAGGCATCCTGCC
TGCAAACCTCATACGCCTGGGGCTGGACCAGACAACTCTGAGTGATGAGATGAGGCAGGAACTGAGGGCCCTGGAG
CAGGAGAAACCTCAGCTGCTCATCTTACAGCAGACGGAAACCAAGTGTGATGACCCCTACTGAGGGCCTGGATACG
GGAGAGATGAGTAATAGCACATCCTCACTCAAGCGGCAGAGACTCGGATCAGAGAGGGCGGCTTCCCATGTTGCT
CAGGCTAATCTCAAACCTTGGACGTGAGCAAGATCTTCCCAATTGCTGAGATTGCAGAGGAAAGCTCCCCAGAG
GTAGTACCGGTGGAACCTTGTGCGTGCCTTCTCCTGCCTCTCAAGGGGACCTGCATACGAAGCCTTTGGGGACT
GACGATGACTTCTGGGGCCCCACGGGGCCTGTGGCTACTGAGGTAGTTGACAAAGAAAAGAACTTGTACCGAGTT
CACTTCCCTGTAGCTGGCTCCTACCGCTGGCCCAACACGGGTCTCTGCTTTGTGATGAGAGAAGCGGTGACCGTT
GAGATTGAATTCTGTGTGTGGGACCAGTTCTGGGTGAGATCAACCCACAGCACAGCTGGATGGTGGCAGGGCCT
CTGCTGGACATCAAGGCTGAGCCTGGAGCTGTGGAAGCTGTGCACCTCCCTCACTTTGTGGCTCTCCAAGGGGGC
CATGTGGACACATCCCTGTTCCAAATGGCCCACTTTAAAGAGGAGGGGATGCTCCTGGAGAAGCCAGCCAGGGTG

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FIGURE 691B

GAGCTGCATCACATAGTTCTGGAAAACCCAGCTTCTCCCCCTTGGGAGTCCTCCTGAAAATGATCCATAATGCC
CTGCGCTTCATTCCCGTCACCTCTGTGGTGTGCTTTACCACCGCGTCCATCCTGAGGAAGTCACCTTCCACCTC
TACCTGATCCCAAGTGACTGCTCCATTGGAAGGCCATAGATGATCTAGAAATGAAATTCCAGTTTGTGCGAATC
CACAAGCCACCCCGCTGACCCCACTTTATATGGGCTGTGCTTACACTGTGTCTGGGTCTGGTTCAGGGATGCTG
GAAATACTCCCCAAGGAAGTGGAGCTCTGCTATCGAAGCCCTGGAGAAGACCAGCTGTTCTCGGAGTTCTACGTT
GGCCACTTGGGATCAGGGATCAGGCTGCAAGTGAAAGACAAGAAAGATGAGACTCTGGTGTGGGAGGCCTTGGTG
AAACCAGGAGATCTCATGCCTGCAACTACTCTGATCCCTCCAGCCCGCATAGCCGTACCTTCACCTCTGGATGCC
CCGCAGTTGCTGCACTTTGTGGACCAGTATCGAGAGCAGCTGATAGCCCGAGTGACATCGGTGGAGGTTGTCTTG
GACAACTGCATGGACAGGTGCTGAGCCAGGAGCAGTACGAGAGGGTGCTGGCTGAGAACACGAGGCCAGCCAG
ATGCGGAAGCTGTTGAGCTTGAGCCAGTCTGGGACCGGAAGTGCAAAGATGGACTCTACCAAGCCCTGAAGGAG
ACCCATCTCACCTCATTATGGAAGTCTGGGAGAAGGGCAGCAAAAAGGGACTCCTGCCACTCAGCAGCTGAAGT
ATCAACACCAGCCCTTGACCCTTGAGTCTGGCTTTGGCTGACCCTTCTTTGGGTCTCAGTTTCTTTCTCTGCAA
ACAAGTTGCCATCTGGTTTGCCTTCCAGCACTAAAGTAATGGAAGTTGATGATGCCTTTGCTGGGCATTATGTG
TCCATGCCAGGGATGCCACAGGGGGCCCCAGTCCAGGTGGCCTAACAGCATCTCAGGGAATGTCCATCTGGAGCT
GGCAAGACCCCTGCAGACCTCATAGAGCCTCATCTGGTGGCCACAGCAGCCAAGCCTAGAGCCCTCCGGATCCCA
TCCAGGCGCAAAGAGGAATAGGAGGGACATGGAACCATTTGCCTCTGGCTGTGTACAGGGTGAGCCCCAAAATT
GGGGTTCAGCGTGGGAGGCCACGTGGATTCTTGGCTTTGTACAGGAAGATCTACAAGAGCAAGCCAACAGAGTAA
AGTGGAAGGAAGTTTATTCAGAAAATAAAGGAGTATCACAGCTCTTTTAGAATTTGTCTAGCAGGCTTTCCAGTT
TTTACCAGAAAACCCCTATAAATTAAAAATTTTTTACTTAAATTTAAGAATTAATAAATAACAAAAAGAAAAAA
TGAAAATAAAGGAATAAGAAGTTACCTACTCCAAAAA

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FIGURE 692

MAGGAWGRLACYLEFLKKEELKEFQLLLANKAHSRSSGETPAQPEKTSGMEVASYLVAQYGEQRAWDLALHTWE
QMGLRSLCAQAQEGAGHSPSPFPYSPSEPHLGSPSQPTSTAVLMPWIHELPAGCTQGSERRVLRQLPDTSGRRWRE
ISASLLYQALPSSPDHESPSQESPNAPTSTAVLGSWGSPQPQSLAPREQEAPGTQWPLDETSGIYYTEIRERERE
KSEKGRPPWAAVVGTPPQAHTSLQPHHPWEPVRESLCSTWPWKNEDFNQKFTQLLLLQRPHPRSQDPLVKRSW
PDYVEENRGHLIEIRDLFPGPLDTQEPRIVILQGAAGIGKSTLARQVKEAWGRGQLYGDRFQHVFFYFSCRELAQS
KVVSLAELIGKDGATATPAPIRQILSRPERLLFILDGVDEPGWVLQEPSSSELCHWSQPQPADALLGSLLGKTIPL
EASFLITARTTALQNLIPSLEQARWVEVLGFSESSRKEYFYRYFTDERQAIRAFRLVKSNNKELWALCLVPVWSWL
ACTCLMQMKRKEKLTLTSTTTTTLCLHYLAQALQAQPLGQPLRDLCSLAAGIWOQKTLFSPDDLKXGLDGA
ISTFLKMGILQEHPPLSYFHLCHFQEFFAAMSYVLEDEKGRGKHSNCIIDLEKTLAYGIHGLFGASTTRFLL
GLLSDEGEREMENIFHCRLSQGRNLMQWVPSLQLLLQPHSLSLHCLYETRNTFLTQVMAHFEEMGMCVETDME
LLVCTFCIKFSRHVKKLQLEGRQHRSTWSPTMVVLFWRVPTDAYWQILFVLKVTRNLKELDLGNSLSHSAV
KSLCKTLRRPRCLLETTLRLAGCGLTAEDCKDLAFGLRANQTLTELDLSFNVLTDAGAKHLCQRLRQPSCKLQRLQ
LVSCGLTSDCCQDLASVLSASPSLKELDLQNNLDDVGVRLLCEGLRHPACKLIRLGLDQTTLSDEMRELRALE
QEKPLLLIFSRKPSVMTPTTEGLDTGEMSNSTSSLKRQRLGSERAASHVAQANLKLDDVSKIFPIAEIAEESSPE
VVPVELLCVPSPASQGD LHTKPLGTD DDFWGP TGVPATEVVDKEKNLYRVHFPVAGSYRWPNTGLCFVMREAVTV
EIEFCVWDQFLGEINPQHSWMVAGPLLDIKAEPGAVEAVHLPHFVALQGGHVDTSLFQMAHFKEEGMLLEKPARV
ELHHIVLENPSFSPLGVLLKMIHNALRFIPVTSVLLYHRVHPPEVTFHLYLIPSDCSIRKAIDDLKMFQFVRI
HKPPPLTPLYMGCRYTVSGSGSMLEILPKELELCYRSPGEDQLFSEFYVGHLSGIRLQVKDKKDETLVWEALV
KPGDLMPATTLIPPARIAVPSPLDAPQLLHFVDQYREQLIARVTSVEVLDKLHGQVLSQEQYERVLAENTRPSQ
MRKLFSLSQSWDRKCKDGLYQALKETHPHLIMELWEKSGSKGLPLSS

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FIGURE 693

CGCGGCGGCGCGGAGCTCGGGCGGCCGTGGAGGAACTCAGCCTCGGCCGCAGGAGGCGCCGGGAGCGGAGCCGCC
GGGAGTCGCGCAACAGGTTTCCTTCTCCATCCGTGCGCCACAGGGGACGCGCGCCCTGCCGGGAGAGGGGCTTC
TCGGTTCGCACTCTCGCTCCCAGTCCAGGCAAAATGAAAGACCGGCTAGCAGAACTTCTGGACTTGTCCAAGCAA
TATGACCAGCAGTTCCCAGACGGGGACGATGAGTTTGACTCGCCCCACGAGGACATCGTGTTCGAGACGGACCAC
ATCCTGGAGTCCCTGTACCGAGACATCCGGGACATTGAGGATGAAAACCAGCTGCTGGTGGCCGACGTGAAGCGG
CTGGGAAAGCAGAACGCCCCGCTTCCTCACGTCCATGCGGCGCCTCAGCAGCATCAAGCGCGACACCAACTCCATC
GCCAAGGCCTTCAGGGCCCCGGGGCGAGGTCATCCACTGCAAGCTGCGCGCCATGAAGGAGCTGAGCGAGGCGGCT
GAGGCCCAGCACGGCCCCGACTCGGCAGTGGCGCGCATTTGCGGGGCGCAGTACAACGCGCTCACCTCACCTTC
CAGCGCGCCATGCACGACTACAACCAGGCCGAGATGAAGCAGCGCGACAACGCAAGATCCGCATCCAGCGCCAG
CTGGAGATCATGGGCAAGGAAGTCTCGGGCGACCAGATCGAGGACATGTTTCGAGCAGGGTAAGTGGGACGTGTTT
TCCGAGAACTTGCTGGCCGACGTGAAGGGCCGCGGGCCGCCACAACGAGATCGAGAGCCGCCACCGCGAACTGC
TGCGCCTGGAGAGCCGCCATCCGCGACGTACACGAGCTCTTCTTGAGATGGCGGTGCTGGTGGAGAAGCAGGCC
GACACCCTGAACGTCATCGAGCTCAACGTACAAAAGACGGTCGACTACACCGGCCAGGCCAAGGCGCAGGTGCGG
AAGGCCGTGCAGTACGAGGAGAAGAACCCTGCGGACCCCTCTGCTGCTTCTGCTGTCCCTGCCTCAAGTAGCAG
GCCGGCCCCGGGCGCCACCGCCCATCCAGACCATGGAGCGCGCTGGGAAGGACGCACCAAAGCCGGGAGCTCTG
CCCTGCAGGGAGTTGCCCAACCCCTTCCGGAACCTCAGTCTTTAGAAAAGAAACGCCAGGTTCAAGAATTGCAAA
CCAGCCTGTGCTTGGAAGATGGTTAGTTGATACCGTCCGATGATTCTTCAGTAAAGATAGATTCCACCTCGTG
CCGAA

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FIGURE 694

MKDRLAELLDSLKQYDQQFPDGDDEFDSPHEDIVFETDHILESLYRDIRDIQDENQLLVADV KRLGKQNRFLTS
MRRLLSSIKRDTNSIAKAFRARGEVIHCKLRAMKELSEAAEAQHGPSAVARISRAQYNALTTLTFQAMHDYNQAE
MKQRDNCKIRIQRQLEIMGKEVSGDQIEDMFEQGKWDVFSENLLADVKG RGPPTTRSRAATANCCAWRAAIRDVH
ELFLQMAVLVEKQADTLNVIELNVQKTVDYTGQAKAQVRKAVQYEEKNPCRTLCCFCCPCLK

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FIGURE 695

AGTTCCCCGACATCAAGTCACGCATTGCCAAGCGGGGGCGCAAGCTGGTGGACTACGACAGTGCCCGGCACCACT
ACGAGTCCCTTCAAACCTGCCAAAAAGAAGGATGAAGCCAAAATTGCCAAGCCTGTCTCGCTGCTTGAGAAAGCCG
CCCCCAGTGGTGCCAAGGCAAACCTGCAGGCTCATCTCGTAGCTCAAACCTAACCTGCTCCGAAATCAGGCCGAGG
AGGAGCTCATCAAAGCCCAGAAGGTGTTTGAGGAGATGAATGTGGATCTGCAGGAGGAGCTGCCGTCCCTGTGGA
ACAGCCGCGTAGGTTTCTATGTCAACACGTTCCAGAGCATCGCGGGCCTGGAGGAAAACCTCCACAAGGAGATGA
GCAAGCTCAACCAGAACCTCAATGATGTGCTGGTCGGCCTGGAGAAGCAACACGGGAGCAACACCTTCACGGTCA
AGGCCAGCCAGTGAACAACGCGCCTGCAAAAGGGAACAAGAGCCCTTCGCCTCCAGATGGCTCCCCTGCCGCCA
CCCCGAGATCAGAGTCAACCACGAGCCAGAGCCGGCCGGCGGGGCCACGCCCGGGGCCACCCTCCCCAAGTCCC
CATCTCAGCTCCGGAAAGGCCACCAGTCCCTCCGCCCTCCAAACACACCCCGTCCAAGGAAGTCAAGCAGGAGC
AGATCCTCAGCCTGTTTGAGGACACGTTTGTCCCTGAGATCAGCGTGACCACCCCTCCCAGTTTGAGGCCCCGG
GGCCTTCTCGGAGCAGGCCAGTCTGCTGGACCTGGACTTTGACCCCTCCCGCCCGTGACGAGCCCTGTGAAGG
CACCCACGCCCTCTGGTCAGTCAATTCCATGGGACCTCTGGGAGCCACAGAGAGTCCAGCCGGCAGCCTGCCTT
CCGGGGAGCCAGCGCTGCCGAGGGCACCTTTGCTGTGTCTGGCCAGCCAGACGGCCGAGCCGGGGCCTGCCC
AACCAGCAGAGGCCTCGGAGGTGGCGGGTGGGACCCAACCTGCGGCTGGAGCCCAGGAGCCAGGGGAGACGGCGG
CAAGTGAAGCAGCCTCCAGCTCTCTTCCTGCTGTCTGTGGTGGAGACCTTCCCAGCAACTGTGAATGGCACCGTGG
AGGGCGGCAGTGGGGCCGGGCGCTTGGACCTGCCCCCAGGTTTCATGTTCAAGGTACAGGCCCAGCACGACTACA
CGGCCACTGACACAGACGAGCTGCAGCTCAAGGCTGGTGATGTGGTGTGTTGATCCCCTTCCAGAACCCTGAAG
AGCAGGATGAAGGCTGGCTCATGGGCGTGAAGGAGAGCGACTGGAACCAGCACAAAGGAGCTGGAGAAGTGCCGTG
GCGTCTTCCCCGAGAACTTCACTGAGAGGGTCCCATGACGGCGGGGCCAGGCAGCCTCCGGGCGTGTGAAGAAC
ACCTCCTCCCGAAAAATGTGTGGTTCTTTTTTTTGTGTTTGTGTTTTCATCTTTTGAAGAGCAAAGGGAAA
TCAAGAGGAGACCCCCAGGCAGAGGGGCGTTCTCCAAAGATTAGGTCGTTTTCCAAGAGCCGCGTCCCGGCAA
GTCCGGCGGAATTCACAGTGTTCCTGAAGCTGCTGTGTCCTCTAGTTGAGTTTCTGGCGCCCTGCCTGTGCCC
GCATGTGTGCTGGCCGAGGGCGGGGCTGGGGGCTGCCGAGCCACCATGCTTGCTGAAGCTTCGGCCGCGCCA
CCCGGGCAAGGGTCCTCTTTTCTGGCAGCTGCTGTGGGTGGGGCCAGACACCAGCCTAGCCTGGCTCTGCCCC
GCAGACGGTCTGTGTGCTGTTTGAAAATAAATCTTAGTGTTCAAACAAAATGAAACAAAAAAAATGAAAAAA
AAAAAAAAAAAAAAAAAAAA

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FIGURE 696

GCTGGAGGATGTGGCTGCAGAGCCTGCTGCTCTTGGGCACTGTGGCCTGCAGCATCTCTGCACCCGCCGCTCGC
 CCAGCCCCAGCACGCAGCCCTGGGAGCATGTGAATGCCATCCAGGAGGCCCGGCGTCTCCTGAACTGAGTAGAG
 ACACTGCTGCTGAGATGAATGAAACAGTAGAAGTCATCTCAGAAATGTTTGACCTCCAGGAGCCGACCTGCCTAC
 AGACCCGCCTGGAGCTGTACAAGCAGGGCCTGCGGGGCAGCCTCACCAAGCTCAAGGGCCCCTTGACCATGATGG
 CCAGCCACTACAAGCAGCACTGCCCTCCAACCCCGGAACTTCCTGTGCAACCCAGACTATCACCTTTGAAAGTT
 TCAAAGAGAACCTGAAGGACTTTCTGCTTGTTCATCCCCTTTGACTGCTGGGAGCCAGTCCAGGAGTGAGACCGGC
 CAGATGAGGCTGGCCAAGCCGGGGAGCTGCTCTCTCATGAAACAAGAGCTAGAACTCAGGATGGTCATCTTGGA
 GGGACCAAGGGGTGGGCCACAGCCATGGTGGGAGTGGCCTGGACCTGCCCTGGGCCACACTGACCCTGATACAGG
 CATGGCAGAAGAATGGGAATATTTTATACTGACAGAAATCAGTAATATTTATATATTTATATTTTAAAAATATTT
 ATTTATTTATTTATTTAAGTTCATATTCATATTTATTCAAGATGTTTTACCGTAATAATTATTATTTAAAAATAT
 GCTTCT

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FIGURE 697

MWLQSLLLGLTVACSIAPARSPSPSTQPWEHVNAIQEARRLLNLSRDTAAEMNETVEVISEMFDLQEPTCLQTR
LELYKQGLRGSLTKLKGPLTMMASHYKQHCPPTPETS CATQTITFESFKENLKDFLLVIPFDCWEPVQE

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FIGURE 698

AGTTACGTTTCGGGGCGTGGCCGGGAGCACGTTGGCTCCGCCCCCTGGCGGCTGCCTCAGCGGCGGCGGGCGGCGCA
GGCTCAGAGCAGACCCCGCCCGGCGAGGAGGAGGGAGGGCCGCCAGTGTGAC**ATG**CTGCTGGAGGAGGTTTCGCG
CCGGCGACCGGCTGAGTGGGGCGGCGGCCCGGGGCGACGTGCAGGAGGTGCGCCGCTTCTGCACCGCGAGCTGG
TGCATCCCGACGCCCTCAACCGCTTCGGCAAGACGGCGCTGCAGGTCATGATGTTTGGCAGCACCGCCATCGCCC
TGGAGCTGCTGAAGCAAGGTGCCAGCCCCAATGTCCAGGACACCTCCGGTACCAGTCCAGTCCATGACGCAGCCC
GCACTGGATTCTTGACACCCCTGAAGGTCCTAGTGGAGCACGGGGCTGATGTCAACGTGCCTGATGGCACCGGGG
CACTTCCAATCCATCTGGCAGTTCAAGAGGGTCACACTGCTGTGGTCAGCTTTCTGGCAGCTGAATCTGATCTCC
ATCGCAGGGACGCCAGGGGTCTCACACCCTTGGAGCTGGCACTGCAGAGAGGGGCTCAGGACCTCGTGGACATCC
TGCAGGGCCACATGGTGGCCCCGCTG**TGAT**CTGGGGTCACCCTCTCCAGCAAGAGAACCCCGTGGGGTTATGTAT
CAGAAGAGAGGGGAAGAAACACTTTCTCTTCTTGTCTCTCTGCCCCACTGCTGCAGTAGGGGAGGAGCACAGTTT
GTGGCTTATAGGTGTTGGTTTTGGGGGTGTGAGTGTGTGGGGGACGTTTCTCATTTGTTTTTCTCACTCCTTTTG
GTGTGTTGGACAGAGAAGGGCTCCTGCAGGCCACAGCCACCTAAACGGTTCAGTTTCTTCTGCGCCTCAGGCTGC
TGGGGCCTCAGACGAGACCCAAGGGCAGAGCATTTAAGAGTGAAGTCATGACCTCCAGGGAGCCTAGAAGCTGGT
GGCCTTGGCCGGCTGTGCTCAGAGACCTGAAGTGTGCACGTTGCTTCAGGCATGGGGGGTGGGGGGAGCGTCCCA
AATCAATAAGAAGGTAGAATGAGTTATGAGTTATTATATTCTGTTGGAAGCTTGTTTTCCAGTCTCTTGTACAG
CGTTTTAAAGAAATGGATTCTATTTATTATGCTTTATTGGAAAAAATGTTGTAATAATTTAATGTTTTTACCCA
TTAAATTAAGACTTGTGCATGATCAAAAAAAAAAAAAAAAAA

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FIGURE 699

MLLEEVRA GDRLSGAAARGDVQEVRRLLHRELVHPDALNRFGKTALQVMMFGSTAIALELLKQGASPNVQDTSGT
SPVHDAARTGF LDTLKV LVEHGADVNV PDGTGALPIHLAVQEGHTAVVSFLAAESDLHRRDARGLTPLELALQRG
AQDLVDILQGHMVAPL

FIGURE 700

GGGGAGATCTTAGCTGAAG**ATG**ACTGACAGTGTTATTTATTCCATGTTAGAGTTGCCTACGGCAACCCAAGCCCA
GAATGACTATGGACCACAGCAAAAATCTTCCTCTTCCAGGCCTTCTTGTTCTTGCCTTGTGGCAATAGCTTTGGG
GCTTCTGACTGCAGTTCCTTCTGAGTGTGCTGCTATAACCAGTGGATCCTGTGCCAGGGCTCCAACACTCCACTTG
TGCCAGCTGTCCTAGCTGCCCAGACCGCTGGATGAAATATGGTAACCATTGTTATTATTTCTCAGTGGAGGAAAA
GGACTGGAATTCTAGTCTGGAATTCTGCCTAGCCAGAGACTCACACCTCCTTGTGATAACGGACAATCAGGAAAT
GAGCCTGCTCCAAGTTTTCTCAGTGAGGCCTTTTGCTGGATTGGTCTGAGGAACAATTCTGGCTGGAGGTGGGA
AGATGGATCACCTCTAACTTCTCAAGGATTTCTTCTAATAGCTTTGTGCAGACATGCGGTGCCATCAACAAAAA
TGGTCTTCAAGCCTCAAGCTGTGAAGTTCCTTTACACTGGGTGTGTAAGAAGTGTCCTTTGCAGATCAAGCTTT
ATTCT**TGA**AGAATAAACCTAGCTGGCATGCTGGTGTGTACCTGTAGTCCTAGCTATTTGGGAAGCTGAGGTGGGAG
GGTCGCTTGAGCCAGGAGTTTGAGGCTGCAGTGAGCTATGATTGTGCCACTGTACTCCAGCCTGGGAGATAGAG
CAAGACTCCATCTCTAAAAAAAAAAAAAAAAATGCTAATGTGAGAATATAAATTGTGGGAAATGAGTGAGGGCAAGG
TGGTACTTCCTCCTTCTGAGCTCTTCACACGTAATGCAAAAACCCGGTCTTAAGTATTTTGTTTTTTTTCTGAG
TATGCATATATGTGGTTGAATGAACCAATGTGTGATTGTATCTTTTCCATTATGTGACTGTTTGACCTGCATATT
AATTTCAAGATAGCAGTCAATTCGATAAGGCATTTTCATAGAGGAAAGTTTACAGAAACAGTTTATGTGGTTGGA
TCACCAAATTATCTTAGGTACTAAGGCCTCAAAAATAAGAAAACTTTATTATTTCTCCTCAGTAGAGTTTGGAC
ATACATAAGGAGAGAAGGTACAGTGATGAAGGAGACCATAATTCTGTAGTGTGATGATCCTGGATTATAATCTT
TTTCTCTTTATCTTTCATAGTTTTTTTTTAAAAACATGGACTGTATCTTATCTACCACTATATCCCAAATACCTAAG
ATAGTGCTTACGTTCACTGACTATTAAATAAATAAATGGATGAATTAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 701

MTDSVIYSMLELPTATQAQNDYGPQQKSSSSRPSCSCLVAIALGLLTAVLLSVLLYQWILCQGSNYSTCASCPS
PDRWMKYGNHCYYFSVEEKDWNSSEFCLARDSHLLVITDNQEMSLQVFLSEAFCWIGLRNNSGWRWEDGSPLN
FSRISSNSFVQTCGAINKNGLQASSCEVPLHWVCKKCPFADQALF

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FIGURE 702

TGAAGATCAGCTATTAGAAGAGAAAGATCAGTTAAGTCCTTTGGACCTGATCAGCTTGATACAAGAACTACTGAT
 TTCAACTTCTTTGGCTTAATTCTCTCGGAAACGATGAAATATACAAGTTATATCTTGGCTTTTCAGCTCTGCATC
 GTTTTGGGTTCTCTTGGCTGTTACTGCCAGGACCCATATGTAAAAGAAGCAGAAAAACCTTAAGAAATATTTTAAT
 GCAGGTCATTGAGATGTAGCGGATAATGGAACCTTTTTCTTAGGCATTTTGAAGAATTGGAAAGAGGAGAGTGAC
 AGAAAAATAATGCAGAGCCAAATTGTCTCCTTTTACTTCAAACCTTTTAAAACTTTAAAGATGACCAGAGCATC
 CAAAAGAGTGTGGAGACCATCAAGGAAGACATGAATGTCAAGTTTTTCAATAGCAACAAAAAGAAACGAGATGAC
 TTCGAAAAGCTGACTAATTATTCGGTAACTGACTTGAATGTCCAACGCAAAGCAATACATGAACTCATCCAAGTG
 ATGGCTGAACTGTCGCCAGCAGCTAAAACAGGGAAGCGAAAAAGGAGTCAGATGCTGTTTCAAGGTCGAAGAGCA
 TCCCAGTAAATGGTTGTCTGCTGCAATATTTGAATTTTAAATCTAAATCTATTTATTAATATTTAACATTATTT
 ATATGGGGAATATATTTTTAGACTCATCAATCAAATAAGTATTTATAATAGCAACTTTTGTGTAATGAAAATGAA
 TATCTATTAATATATGTATTATTTATAATTCCTATATCTGTGACTGTCTCACTTAATCCTTTGTTTTCTGACTA
 ATTAGGCAAGGCTATGTGATTACAAGGCTTTATCTCAGGGGCCAACTAGGCAGCCAACCTAAGCAAGATCCCATG
 GGTGTGTGTTTATTTCACTTGATGATACAATGAACACTTATAAGTGAAAGTGATACTATCCAGTTACTGCCGGTT
 TGAAAATATGCCTGCAATCTGAGCCAGTGCTTTAATGGCATGTGACACAGAACTTGAATGTGTCAGGTGACCCTG
 ATGAAAACATAGCATCTCAGGAGATTTTCATGCCTGGTGCTTCCAAATATTGTTGACAACCTGTGACTGTACCCAAA
 TGGAAAGTAACTCATTGTGTTAAAATTATCAATATCTAATATATATGAATAAAGTGTAAGTTCACAACT

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FIGURE 703

MKYTSYILAFQLCIVLGSLGCYCQDPYVKEAENLKKYFNAGHSDVADNGTLFLGILKNWKEESDRKIMQSQIVSF
YFKLFKNFKDDQSIQKSVETIKEDMNVKFFNSNKKKRDDFEKLTNYSVTDLNVQRKAIHELIQVMAELSPAAGTG
KKKRSQMLFQGRRASQ

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FIGURE 704

GTCTGAGCAGCATTGTTAGAGCCTGTGGAAAACACTTTACAACGTGTAACTGTCTTCATCTTTACAGAGGAATA
GTCTACAAAGGAAGACTTGTAACTGGAGAAGAGACCTGTCATTTACTCCATCCTTTATAGTGATGCTACAGGAC
GAAGAGGAATGATAAAAAACATTGGCGAGCAACTCAATAAAGCGTATGAAGCCTTCCGGCAGGCATGCATGGATA
GAGATTCTGCAGTAAAAGAATTACAGCAAAAGACTGAGAAGTATGAGCAGAGAATACGTGAACAACAGGAACAGC
TGTCACCTCAACAGACTATTATTGACAAGCTAAAATCTCAGTTACTTCTTGTGAATTCCACTCAAGATAACAATT
ATGGCTGTGTTCTCTGCTTGAAGACAGTGAACAAGAAAGAATAATTTGACTCTTGATCAGCCACAAGATAAAG
TGATTTTCAGGAATAGCAAGAGAAAACTACCAAAGGTAAGAAGACAAGAGGTTTCTTCTCCTAGAAAAGAACTT
CAGCAAGGAGTCTTGGCAGTCCTTTGCTCCATGAAAGGGGTAATATAGAGAAGACTTTCTGGGATCTGAAAGAAG
AATTTCATAAAAATATGCATGCTAGCAAAAGCACAGAAAGACCACTTAAGCAAACCTTAATATACCAGACACTGCAA
CTGAAACACAGTGCTCTGTGCCTATACAGTGTACGGATAAAACAGATAAACAAGAAGCGCTGTTTAAAGCCTCAGG
CTAAAGATGATATAAATAGAGGTGCACCATCCATCACATCTGTACACCAAGAGGACTGTGCAGAGATGAGGAAG
ACACCTCTTTTGAATCAGTTTCTAAATTCAATGTCAAGTTTCCACCTATGGACAATGACTCAACTTTCTTACATA
GCACTCCAGAGAGACCCGGCATCCTTAGTCCTGCCACGTCTGAGGCAGTGTGCCAAGAGAAATTTAATATGGAGT
TCAGAGACAACCCAGGGAACCTTTGTTAAACAGAAAGAACTTTATTTGAAATTCAGGGAATTGACCCCATAGCTT
CAGCTATACAAAACCTTAAACAACCTGACAAAACAAAGCCCTCAAATCTCGTAAACACTTGTATCAGGACAACCTC
TGGATAGAGCTGCGTGTTTGGCACCTGGAGACCATAATGCATTATATGTAAATAGCTTCCCACTTCTGGACCCAT
CTGATGCACCTTTTCCCTCACTCGATTCCCCGGGAAAAGCAATCCGAGGACCACAGCAGCCCATTTTGAAGCCCT
TTCCTAATCAAGACAGTGACTCGGTGGTACTAAGTGGCACAGACTCAGAAGTGCATATACCTCGAGTATGTGAAT
TCTGTCAAGCAGTTTTCCACCATCCATTACATCCAGGGGGGATTTCTTTCGGCATCTTAATTCACACTTCAATG
GAGAGACTTAAGACACATTTGAAAACAGACATATCAAGTTCTATGTGATGATTTTGGGTTTTTAATACTATAAAT
ACTTGATTGTAACTAAATTCAAGATCATTATAGGAAAATCTAGTTTCACAGCTATTTGAATTTTTTCTGGAT
TTACTATATAACTCTTATTTTTTAAAGATCATTCTGTTCTTTCAAGGAGAAATAAGCCTAAAAGAAGAAAAACA
AAAAAAATTCTGTATAAACTGTAATCCTTTGTATTGTTTACAGTGCTATTACTATAATTCAAATATATGTA
TGTGACTTAGAGTTATATAATCATAATTTATGTTTATTTCAAATATCTAAGTTTATTGCTTGGATTTCTAGTGAG
AGCTGTTGAATTTGGTGATGTCAAATGTTTCTAGGGTTTTTTTAGTTTGTTTTTATTGAAAAATTTAATTATTTA
TGCTATAGGTGATATTCTCTTTGAATAAACCTATAATAGAAAATAGCAGACAACATAAACATCTTTGTAAATATC
AAACCTAATACATTTCTTGTCCAGTGATAAAACAACCTGGTAGAATTATTTAAACACTTTAGATTTTTAAATAATA
TACATGGCTTTAATTTTTACTGTGTGTATAGCTACATGATGAAATTAATTAATATTAAGAGGT

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FIGURE 705

MDKNIGEQLNKAYEAFRQACMDRDSAVKELQQKTENYEQRIREQQEQLSLQQTIIDKLKSQLLLVNSTQDNNYGC
VPLLEDSETRKNNLTLDQPQDKVISGIAREKLPKVDIASAESSI

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FIGURE 706

GTCTACACCAGCGGTGTCGCTGCCCCGAAAGTGAGAGAAGGCTGATATTGCTAGCTGGAATCCAGGCCTGGGTGCT
GCATGGTGGCGCCCCCTCCCCGTGACCACCGCTGCGTTTTCTCGGGCTTTCTCTGAGGAGCTGCTCTTGTGCTGTT
TGGCCCCCTGCCTACTCGGAATGGAACAAAGCATCGAACAAACAAGTGAATCCTGTTGTGCCTATCACCTGTTGA
AGTTGCCAGTCTTAAGGAAGGAATCAATTTCTTTTCGCAATAAGAGCACTGGCAAAGACTACGTCTTGTACAAGAA
TAAGAGCCGACTGAGGGCATGCAAGAATATGTGCAAGCACCAAGGAGGCCTGTTTCATAAAAAGATATCGAGGATTT
AGCCGGAAGTTGTTGAAATGATGAAAACAACGGACTTTTGCTTTTAGAACTGAATCCTCCTAACCCCTGGGACT
TACAGCCCAGATCTCCTGAAGAGTTGGCTTTTGGAGAAGTACAGATAACATATCTCACTCATGCCTGCATGGACC
TCAAGTTAGGAGACAAGAGAATGGTGTGTTGACCCCTGGTTAATCGGTCCTGCTTTTGCCCGTGGATGGTGGTTGC
TCCATGAGCCTCCATCTGATTGGCTGGAGAGGCTGTGCCAGGCAGACCTCATTACATCAGTCATCTGCACTCAG
ACCACCTGAGTTACCCACACTGAAAAAGCTTGCTGGGAGAAGACCAGATATTCCTCATTATGTTGGAAACACAG
AAAGGCCTGTATTTTGAATCTGAATCAGAGCGGTGTCCAGTTGACTAATATCAATGTCGTGCCATTTGGAATAT
GGCAGCAGGTGGACAAAAATCTTCGATTATGATCTTGATGGACGGTGTTCATCCTGAGATGGACACTTGCATTA
TTGTGGAGTACAAAGGTCATAAAATACTCAATATAGTAGACTGCACCAGACCCAATGGGGGAAGGCTGCCTATGA
AGGTTGCTCTAATGATGAGTGATTTTGTGCTGGAGGAGCATCAGGCTTTCCAATGACTTTCAGTGGTGGAAAAATTTA
CGGAGGAATGGAAAAGCCCAATTCATTAAAAACAGAAAGGAAGAAGCTCCTGAACTACAAGGCTCGGCTGGTGAAGA
ACCTGCAACCCCGAATTTATTGTCCCTTTGCTGGGTATTTTGTGGAATCTCACCCATCAGACAAGTACATCAAGG
AAACAAACACCAAAAAATGACCCAAATGAACTCAACAATCTTATCAAGAAAAACTCTGATGTGATAACATGGACCC
CTCGACCGGGAGCCACCCCTTGATCTGGGAAGAATGCTGAAGGATCGAACAGACAGCAAGGGCATCATAGAGCCTC
CAGAGGGGACAAAAATTTACAAGGATTCCTGGGATTTTGAACCTTATTTGGAATCTTGAATGCTGCTCTAGGAG
ATGAAATATTTCTTCACTCATCCTGGATAAAAGAATACTTCACTTGGGCTGGATTTAAAGATTACAACCTTGTGG
TCAGGATGATTGAGACAGATGAGGACTTCAATCCTTTTCTGGAGGATATGACTATTTGGTTGACTTTTTAGATT
TATCCTTCCCAAAAGAAAGACCACAACGAGAATCCTTATGAGGAAATCCATAGCCGGGTGGATGTCATCAGAC
ACGTGGTGAAGAATGGTCTACTCTGGGATGAGTTGTATATAGGATTCCAAACACGGCTCCAGCGGGATCCTGACA
TATACCATCACCTGTTTTGGAATCATTTTCAAATAAACTCCCCCTCACACCACCAACTGGAAGTCATTCTGTA
TGTGCTGTGAGCAGAATGGGCCTGCGATTTTGCAAGAATGCAAAACCACATGAAAATTTCAAGAATTCATGATC
TGATGCAAAAATAAAAAATTTATCATTACATCTTGAACCCAGGAAGCTTACAGCAAAGAGACTATGCTTTATGACGT
CAGCAATAGATAATTCCACGTTGCCTTTGTGATTTGTATATATAGCTTACATTTGTGGATCACTACATAGCCAGA
TTCAAAAAATATTTTACTTGTTCATCCACAGTTCTCTACAGAAAGAACCAATGAACCAATAGGAACAAATTCTC
TGTGGAACAAAGCATAGCTGTAGTAGATACGAATCCAATCACAGAGGAAACAGGAAGAGAAAAACATCCAAGA
CTACAGTGAAAACTGGAATGGTCTGTTTTCGTGATATTCGTATGATTAAGATGCAATTTTTTCTTAGGAAAT
GTGATTGTTAACTAGCATTCTGTTTTACATGTTGACATTTCTAACACACACACCACTGATTTGAACTTCAAATTT
TATTTTCTGATTATATATGCTAGGCTGATTCTGAAGATACAAGAATTCAATGGTGGAATTTGTCTCCTGAAATT
TCTAGATTCATAATTAGAAGTGTTTATTACCAACTTCTCACTTAGATTAACATCAGTGATGTTTGATTATTCTGG
TTAACCGCTCACATGCATAACAATAATGCTAGAAATTCAGGAATTATAATTTTGTGATTTATACTGTGTGGTAAA
TTATTCAGTTCTCACTGCAATAAATAATAATGTATATCAATGTAATGTAGGTCAGAATGTCTATGGTGAGCAAT
AAAAGATTATTTTAAATATGAAAAAAAAAAAAAAAAA

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FIGURE 707

MDENNGLLLLLELNPPNPWDLQPRSPEELAFGEVQITYLTHACMDLKLGDKRMVFDPWLIGPAFARGWLLHEPPS
DWLERLCQADLIYISHLHSDHLSYPTLKKLAGRRPDIPYVGNTERPVFWNLNQSGVQLTNINVVPFGIWQQVDK
NLRFMILMDGVHPMDTCIIVEYKGHKILNIVDCTRPNGGRLPMKVALMMSDFAGGASGFPMTFSGGKFTTEWKA
QFIKTERKKLLNYKARLVKNLQPRIYCPFAGYFVESHPSDKYIKETNTKNDPNELNNLIKKNSDVITWTPRPGAT
LDLGRMLKDRTDSKGIIEPPEGTKIYKDSWDFEPYLEILNAALGDEIFLHSSWIKEYFTWAGFKDYNLVVRMIET
DEDFNPFPGGYDYLVDFLDLSFPKERPQREHPYEEIHSRVDVIRHVVKNGLLWDELYIGFQTRLQRDPDIYHHLF
WNHFQIKLPLTPPNWKSFLMCCEQNGPAILQECKTT

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FIGURE 708

CCGGGGGGCATGAGGGTCCGAGACTTGTTCTTCTGTCCCTTCCAAGACCCGGCGACAGGAGGCATGAGGGGCCCC
CGGCCGAAATGACAGTGCTGGCGCCAGCCTGGAGCCCAACAACCTATCTCCTCCTGCTGCTGCTGCTGAGCTCGG
GACTCAGTGGGACCCAGGACTGCTCCTTCCAACACAGCCCCATCTCCTCCGACTTCGCTGTCAAAATCCGTGAGC
TGTCTGACTACCTGCTTCAAGATTACCCAGTCACCGTGGCCTCCAACCTGCAGGACGAGGAGCTCTGCGGGGGCC
TCTGGCGGCTGGTCTTGGCACAGCGCTGGATGGAGCGGCTCAAGACTGTCGCTGGGTCCAAGATGCAAGGCTTGC
TGGAGCGCGTGAACACGGAGATACACTTTGTCACCAAATGTGCCTTTCAGCCCCCCCCCAGCTGTCTTCGCTTCG
TCCAGACCAACATCTCCCGCCTCCTGCAGGAGACCTCCGAGCAGCTGGTGGCGCTGAAGCCCTGGATCACTCGCC
AGAACTTCTCCCGGTGCCTGGAGCTGCAGTGTGAGCCGACTCCTCAACCCTGCCACCCCATGGAGTCCCGGC
CCCTGGAGGCCACAGCCCCGACAGCCCCGAGCCCCCTCTGCTCCTCCTACTGCTGCTGCCCGTGGGCCTCCTGC
TGCTGGCCGCTGCCTGGTGCCTGCACTGGCAGAGGACGCGGCGGAGGACACCCCGCCCTGGGGAGCAGGTGCCCC
CCGTCCCCAGTCCCCAGGACCTGCTGCTTGTGGAGCACTGACCTGGCCAAGGCCTCATCCTGCGGAGCCTTAAAC
AACGCAGTGAGACAGACATCTATCATCCCATTTTACAGGGGAGGATACTGAGGCACACAGAGGGGAGTCACCAGC
CAGAGGATGTATAGCCTGGACACAGAGGAAGTTGGCTAGAGGCCGGTCCCTTCCTTGGGCCCCCTCTCATTCCCTC
CCCAGAATGGAGGCAACGCCAGAATCCAGCACCGGCCCCATTTACCCAACCTCTGAACAAAGCCCTTGCCCCCATG
AAATTGTTTATAAATCATCCTTTTCTCCCA

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FIGURE 709

MTVLAPAWSPTTYLLLLLLLSSGLSGTQDCSFQHSPISSDFAVKIRELSDYLLQDYPVTVASNLQDEELCGGLWR
LVLAQRWMERLKTVAGSKMQGLLERVNTTEIHFVTKCAFQPPPSCLRFVQTNISRLLQETSEQLVALKPWITRQNF
SRCLELQCQPDSSSTLPPPWSRPLEATAPTAPQPPLLLLLLLLPVGLLLAAAWCLHWQTRRRTPRPGEQVPPVP
SPQDLLVEH

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FIGURE 710

GCGCCTGGCCTATTGAAGGTTTTTAATCTTCAGAGTTTCGACTTTATCAACAACACTTAGAAGCCACCAAAGAAT
TGCAGATGGATCCTAATAGAATATCAGAAGATGGCACTCACTGCATTTATAGAATTTTGAGACTCCATGAAAATG
CAGATTTTCAAGACACAACCTCTGGAGAGTCAAGATACAAAATTAATACCTGATTTCATGTAGGAGAAATTAACAGG
CCTTTCAAGGAGCTGTGCAAAAGGAATTACAACATATCGTTGGATCACAGCACATCAGAGCAGAGAAAGCGATGG
TGGATGGCTCATGGTTAGATCTGGCCAAGAGGAGCAAGCTTGAAGCTCAGCCTTTTGCTCATCTCACTATTAATG
CCACCGACATCCCATCTGGTTCCCATAAAGTGAGTCTGTCTCTTGGTACCATGATCGGGGTTGGGCCAAGATCT
CCAACATGACTTTTAGCAATGGAAAACATAAGTTAATCAGGATGGCTTTTATTACCTGTATGCCAACATTTGCT
TTCGACATCATGAACTTCAGGAGACCTAGCTACAGAGTATCTTCAACTAATGGTGTACGTCACTAAAACCAGCA
TCAAAATCCCAAGTTCTCATACCCTGATGAAAGGAGGAAGCACCAAGTATTGGTCAGGGAAATCTGAATTCCATT
TTTATTCCATAAACGTTGGTGGATTTTTTAAGTTACGGTCTGGAGAGGAAATCAGCATCGAGGTCTCCAACCCCT
CCTTACTGGATCCGGATCAGGATGCAACATACTTTGGGGCTTTTAAAGTTCGAGATATAGATTGAGCCCCAGTTT
TTGGAGTGTTATGTATTTCTGGATGTTTGGAAACATTTTTTAAACAAGCCAAGAAAGATGTATATAGGTGTGT
GAGACTACTAAGAGGCATGGCCCCAACGGTACACGACTCAGTATCCATGCTCTTGACCTTGTAGAGAACACGCGT
ATTTACAGCCAGTGGGAGATGTTAGACTCATGGTGTGTTACACAATGGTTTTTAAATTTTGTAATGAATTCCTAG
AATTAAACCAGATTGGAGCAATTACGGGTTGACCTTATGAGAACTGCATGTGGGCTATGGGAGGGGTTGGTCCC
TGGTCATGTGCCCCCTTCGCAGCTGAAGTGGAGAGGGTGTCTATCTAGCGCAATTGAAGGATCATCTGAAGGGGCAA
ATTCTTTTGAATTGTTACATCATGCTGGAACCTGCAAAAAATACTTTTTCTAATGAGGAGAGAAAATATATGTAT
TTTTATATAATATCTAAAGTTATATTTTCAGATGTAATGTTTTCTTTGCAAAGTATTGTAAATTATATTTGTGCTA
TAGTATTTGATTCAAAATATTTAAAAATGTCTTGCTGTTGACATATTTAATGTTTTAAATGTACAGACATATTTA
ACTGGTGCACTTTGTAATTCCTGGGGAAAACCTTGACGCTAAGGAGGGGAAAAAAATGTTGTTTCCTAATATCA
AATGCAGTATATTTCTTCGTTCTTTTTAAGTTAATAGATTTTTTCAGACTTGTCAAGCCTGTGCAAAAAAATTAA
AATGGATGCCTTGAATAATAAGCAGGATGTTGGCCACCAGGTGCCTTTCAAATTTAGAACTAATTGACTTTAGA
AAGCTGACATTGCCAAAAAGGATACATAATGGGCCACTGAAATCTGTCAAGAGTAGTTATATAATTGTTGAACAG
GTGTTTTTCCACAAGTGCCGCAAATTGTACCTTTTTTGTTTTTCAAATAGAAAAGTTATTAGTGGTTTTATCAG
CAAAAAAGTCCAATTTTAATTTAGTAAATGTTATCTTATACTGTACAATAAAAAACATTGCCTTTGAATGTTAATT
TTTTGGTACAAAAATAAATTTATATGAAAACCTGAAAAAAAAAAAAAAAAAAAAA

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FIGURE 711

MDPNRI SEDGTHCIYRILRLHENADFQDTTLESQDTKLIPDSCRRIKQAFQGAVQKELQHIVGSQH IRAEKAMVD
GSWLDLAKRSKLEAQPFAHLTINATDIPSGSHKVSLSWYHDRGWAKISNMTFSNGKLIVNQDGFYYLYANICFR
HHETSGDLATEYLQLMVYVTKTSIKIPSSHTLMKGGSTKYWSGNSEFHFYSINVGGFFKLRSGEEISIEVSNPSL
LDPDQDATYFGAFKVRDID

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FIGURE 712

CTGGGGGTCCGTTCCCCAACTTCCTCGGCGCTCCGGAATCTCCGCCGACCCCTCCTTTGGATATTCTT
 CGTGTCTCCGATTCTGAGAGAGGGGGAAGACGGTGGGGCCTCCCCACCTGCCCCGAGAAGATGCAGTTCTTTGG
 CCGCCTGGTCAATACCTTCAGTGGCGTACCAACTTGTCTCTAACCATTCCGGGTGAAGGAGGTGGCTGTGGC
 CGACTACACCTCGAGTGACCGAGTTCGGGAGGAAGGGCAGCTGATTCTGTTCCAGAACACTCCCAACCGCACCTG
 GGACTGCGTCTGGTCAACCCAGGAACCTCACAGAGTGGATTCCGACTCTTCCAGCTGGAGTTGGAGGCTGACGC
 CCTAGTGAATTTCCATCAGTATTCTTCCCAGCTGCTACCCTTCTATGAGAGCTCCCCCTCAGGTCCTGCACACTGA
 GGTCTTGACAGCACTGACCGACCTCATCCGTAACCACCCAGCTGGTCAGTGGCCACCTGGCTGTGGAGCTAGG
 GATCCGCGAGTGCTTCCATCACAGCCGTATCATCAGCTGTGCCAATTGCGCGGAGAACGAGGAGGGCTGCACACC
 CCTGCACCTGGCCTGCCGCAAGGGTGATGGGGAGATCCTGGTGGAGCTGGTGCAGTACTGCCACACTCAGATGGA
 TGTACCGACTACAAGGGAGAGACCGTCTTCCATTATGCTGTCCAGGGTGACAATTCTCAGGTGCTGCAGCTCCT
 TGGAAGGAACGCAGTGGCTGGCCTGAACCAGGTGAATAACCAAGGGCTGACCCCGCTGCACCTGGCCTGCCAGCT
 GGGGAAGCAGGAGATGGTCCGCGTGCTGCTGTGTGAATGCTCGGTGCAACATCATGGGCCCCAACGGCTACCC
 CATCCACTCGGCCATGAAGTTCTCTCAGAAGGGGTGTGCGGAGATGATCATCAGCATGGACAGCAGCCAGATCCA
 CAGCAAAGACCCCCGTTACGGAGCCAGCCCCCTCCACTGGGCCAAGAACGCAGAGATGGCCCGCATGCTGTGAA
 ACGGGGCTGCAACGTGAACAGCACCAGCTCCGCGGGGAACACGGCCCTGCACGTGGCGGTGATGCGCAACCGCTT
 CGACTGTGCCATAGTGCTGCTGACCCACGGGGCCAACGCGGATGCCCCGCGAGAGCACGGCAACACCCCGCTGCA
 CCTGGCCATGTGAAAAGACAACGTGGAGATGATCAAGGCCCTCATCGTGTTCGGAGCAGAAGTGACACCCCGAA
 TGACTTTGGGGAGACTCCTACATTCTAGCCTCCAAAATCGGCAGACTTGTACCAGGAAGGCGATCTTGACTCT
 GCTGAGAACCGTGGGGGCCGAATACTGCTTCCCACCCATCCACGGGTCCCCGCGGAGCAGGGCTCTGCAGCGCC
 ACATCATCCCTTCTCCCTGGAAAGAGCTCAGCCCCACCGATCAGCCTAAACAACCTAGAACTACAGGATCTCAT
 GCACATCTCACGGGCCCGGAAGCCAGCGTTTATCTGGGCTCCATGAGGGACGAGAAGCGGACCCACGACCACCT
 GCTGTGCTGGATGGAGGAGGAGTGAAAGGCCTCATCATCATCCAGCTCCTCATCGCCATCGAGAAGGCCTCGGG
 TGTGGCCACCAAGGACCTGTTTGAAGTGGTGGCGGGCACCAGCACTGGAGGCATCCTGGCCCTGGCCATTCTGCA
 CAGTAAGTCCATGGCCTACATGCGCGGCATGTACTTTTCGATGAAGGATGAGGTGTTCCGGGGCTCCAGGCCCTA
 CGAGTCGGGGCCCCCTGGAGGAGTTTCTGAAGCGGGAGTTTGGGGAGCACACCAAGATGACGGACGTGAGGAAACC
 CAAGGTGATGCTGACAGGGACACTGTCTGACCGGCAGCCGGCTGAACTCCACCTCTTCCGGAACCTACGATGCTCC
 AGAAACTGTCCGGGAGCCTCGTTTCAACCAGAACGTTAACTCAGGCCTCCAGCTCAGCCCTCAGACCAGCTGGT
 GTGGCGGGCGGCCGAAGCAGCGGGCAGCTCCTACTTACTTCCGACCCAATGGGCGCTTCTGGACGGTGGGCT
 GCTGGCCAACAACCCACGCTGGATGCCATGACCGAGATCCATGAGTACAATCAGGACCTGATCCGCAAGGGTCA
 GGCCAACAAGGTGAAGAACTCTCCATCGTTGTCTCCCTGGGGACAGGGAGGTCCCCACAAGTGCCTGTGACCTG
 TGTGGATGTCTTCCGTCCCAGCAACCCCTGGGAGCTGGCCAAGACTGTTTTTGGGGCCAAGGAACCTGGGCAAGAT
 GGTGGTGGACTGTTGCACGGATCCAGACGGGCGGGCTGTGGACCGGGCACGGGCTGGTGCAGATGGTGGCAT
 CCAGTACTTCAGATTGAACCCCACTGCTGGGACGGACATCATGCTGGATGAGGTGAGTACACAGTGTGGTCAA
 CGCCCTCTGGGAGACCGAGGTCTACATCTATGAGCACCAGGAGGTCCAGAAGCTCATCCACCTGCTGCTCTC
 ACCCTGAAGGGTCCCCAGCCTCTACCGGCCCACTGACCTCGTCCATTACGCCCTGCCAGGCCAAGCCAGCC
 ACTGCCCTCCCGGGCAGATCTGGGCCAGGCACCTCTGAGTCCATAGACCAGGCCTGGGAGAATGCCAAGCTGCC
 TGCCCGAGGCTGGTCTGAAGGCCTGTCTCCACTAACCCCCCTTCCATCACTTTCTGTCTATGCCAGGXTGGGA
 AAGTCTAGAGCCCCCTTTGGCCCCCTTCCCTGACTGTCAAGGACAACCTGACTCCCCCATCAGCTCAAACATTAAG
 GGTACCCGGGCACAACCGTACCGGTGCCCCAGCCCCAGCCTACCTGAGGGCCTGCCGGGCTGCCCTTTGCCCA
 GCCCCAGCAAGGGCATTCCCAGGCTTCTGGTGGGTGCAGCCCAATCCCTCTGCCCTCTGCTCCGTTCCCTGGG
 GGCTGGGACTAAAGAAATGGGTGTCCCCACCCCATCAGCTGGGAAAGCCAGGCCGAGGAGTGGGATGCCCGT
 TGGACTTTGCCCTCACACTGGCCCAGCCCCCTCACACTGCCCCACCCGAGAACCTCAGCTCTCAAAGGTCACT
 CCTGGGAGTTTCTTCTTCCCAATGGAAGTGGCTTAAGAGCCAAAACCTGAAATAAATCATTTGGATTCAAGTTCAA
 AAAAAAAAAAAAAA

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FIGURE 713

MQFFGRLVNTFSGVTNLF SNPF RVKEVAVADYTSSDRVREEGQLILFQNTPNRTWDCVLVNPRNSQSGFRLFQLE
LEADALVNFHQYSSQLLPFYESSPQVLHTEVLQHLTDLIRNHPSWSVAHLAVELGIRECFHHSRIISCANCAENE
EGCTPLHLACRKGDEILVELVQYCHTQMDVTDYKGETVFHYAVQGDNSQVLQLLGRNAVAGLNQVNNQGLTPLH
LACQLGKQEMVRVLLLCNARC NIMGPNGYPIHSAMKFSQKGCAEMII SMDSSQIHSKDPY GASPLHWAKNAEMA
RMLLKRG CNVNSTSSAGNTALHVAVMRNRFDC AIVLLTHGANADARGEHGNTPLHLAMSKDNVEMIKALIVFGAE
VDTPNDFGETPTFLASKIGRLVTRKAILTLLRTVGAEYCFPP IHGVP AEQGS AAPHHPFSLERAQPPPISLNNLE
LQDLMHISRARKPAFILGSMRDEKRTHDHLCLDGGGVKGLII IQLLIAIEKASGVATKDLFDWVAGTSTGGILA
LAILHKSMA YMRGMYFRMKDEVFRGSRPYESGLEEF LKREFGEHTKMTDVRKPKVMLTGTLSDRQPAELHLFR
NYDAPETVREPRFNQNVNLRPPAQPSDQLVWRAARSSGAAPTYFRPNGRFLDGGLLANNPTLDAMTEIHEYNQDL
IRKGQANKVKKLSIVVSLGTGRSPQVPVTCVDVFRPSNPWELAKTVFGAKELGKMVDCCTDPDGRAVDRARAWC
EMVG IQYFRLNPQLGTDIMLDEVSDTVLVNALWETEVYIYEHREEFQKLIHLLSP

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FIGURE 714

TAAAACTTTAGGAAATTAGTACCAGACTTTTATATTGGTCAACAGCAAAATGAACATTACTACTCAGCCTCCAAC
ACATGCAGTTTGCCTATACCAGGGATCCTGTCAAAATATACACCACTTATAGCTTCTTAAGTGCAGTTATCATAG
AGCACAGTCCCTGACATCACACAGCTGCAGAGATGAATAAAACAAAGAGGAACCTACTCAGAAGTGAGTCTGGCCC
AGGACCCAAAGAGGCAGCAAAGGAACTTAAGGGCAATAAAATCTCCATTTAGGAACCAAACAGGAAATATTCC
AAGTAGAATTAAACCTTCAAAATGCTTCTTCGGATCATCAAGGGAATGACAAGACATATCACTGCAAAGGTTTAC
TGCCACCTCCAGAGAAGCTCACTGCTGAGGTCTAGGAATCATTGTCCTGATGGCCACTGTGTTAAAAA
CAATAGTTCTTATTCCTTGTATTGGAGTACTGGAGCAGAACAAATTTTCCCTGAATAGAAGAATGCAGAAAGCAC
GTCATTGTGGCCATTGTCCTGAGGAGTGGATTACATATTCCAACAGTTGTTATTACATTGGTAAGGAAAGAAGAA
CTTGGAAGAAAGAGTTTGCTGGCCTGTGCTTCGAAGAACTCTGATCTGCTTTCTATAGATAATGAGGAAGAAAT
GGTAAGACGTAAATGTTTCAACACTTTACTAAAAGCTTATTTCTGTCAATATCATATTTGTAGAAATCATCCATA
TGTTTATACATATATTTACTTCATATATTTTTAAGTCTGTGTAGTATTCAACTGACTTCATAATATTTTTATATT
CATATACTGTTAATGCACATTTGGTTATTTCCAGTTTTGCTTTTCATGGAAACCCATGCTTCTATAAATGTTTTT
ATCACAAAATAAATATAAAGAAAACATAAAAAAAAAACCAAAAAAAAAAAAAAAAAAAGGCGGCCGCGATATAG

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FIGURE 715

MNKQRGTYSEVSLAQDPKRQQRKLKGNKISISGTKQEIFQVELNLQNASSDHQGNDKTYHCKGLLPPEKLTAEV
LGIICIVLMATVLKTIVLIPCIGVLEQNNFSLNRRMQKARHCGHCPEEWITYSNSCYIYIGKERRTWEERVCPVL
RRTLICFL

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FIGURE 716

GAATTCGATTTTTGAGACTTCTCCATCGGGATCGCCTGGTGTACCAAGTGTCCTACTGGTACTGAGGTTTGCTGC
CTGCCTTCTTGCC**ATGT**CTAACGAAGTAGAAACAAGTGCAACCAATGGTCAGCCCGACCAACAGGCCGCACCAAA
AGCACCCCTCAAAGAAGGAAAAAAGAAAGGCCCTGAAAAGACAGATGAATATCTCTTAGCAAGGTTCAAAGGCGA
TGGTGTAATAATATAAGGCCAAGCTGATTGGCATTGATGATGTGCCAGATGCAAGAGGGGATAAAATGAGCCAAGA
CTCTATGATGAACTAAAGGGAATGGCGGCAGCTGGTCGGTCTCAGGGACAACACAAACAAAGGATCTGGGTCAA
CATTTCCCTTTCTGGGATAAAAAATAATTGATGAGAAAACCTGGGGTAATAGAGCATGAACATCCAGTAAATAAGAT
TTCTTTTCATTGCCCCGTGATGTGACAGACAACCGGGCATTGGTTACGTGTGTGGAGGAGAAGGCCAGCATCAGTT
TTTTTGCCATAAAAAACCGGGCAACAGGCTGAACCATTAGTTGTTGATCTTAAAGACCTTTTTCAAGTTATCTATAA
TGTAAAGAAAAAGGAAGAAGAAAAAGATAAGAGGAAGCCAGCAAAGCAGTTGAGAATGGGAGTGAGGCCCT
AATGATTCTAGATGACCAAACCTAACAACTGAAATCGGAAAGCAAAGATATCCTGTTAGTGGATCTAAACTCTGA
AATCGACACCAATCAGAATTCTTTAAGAGAAAATCCATTCTTAAACAAACGGCATCACCTCCTGTTCTCTTCCTCG
ACCAACGCCTCAGGCATCCTTCTTGCCCTGAAAATGCCTTTTTCTGCCAATCTCAACTTCTTTCCACCCCTAATCC
TGATCCTTTCCGTGACGATCCTTTACACAGCCAGACCAATCGACACCTTCTTCGTTTGATTCTCTCAAATCTCC
AGATCAGAAGAAAGAGAATTGAGTAGCTCGTCTACTCCGCTGAGTAATGGGCCCCCTGAATGGTGATGTTGACTA
CTTTGGTCAGCAATTTGACCAGATCTCTAACCGGACTGGCAAACAGGAAGCTCAGGCAGGCCCATGGCCCTTTTC
AAGTTCGCAAACCCAGCCAGCAGTGAGAACTCAAATGGGGTATCTGAAAGAGAACAGAACGGCTTCTCTGTCAA
ATCCTCCCCGAACCTTTTGTGGGAAGCCCTCCCAAAGGACTGTCCATACAGAATGGCGTAAAGCAGGACTTGGA
AAGCTCTGTCCAGTCCTCACCACATGACTCCATAGCCATTATCCACCTCCACAAAGTACCAACCAGGAAGAGG
CAGAAGGACTGCTAAGTCTTCAGCCAATGACTTGCTTGTCATCAGACATCTTTGCTCCTCCCGTCTCAGAACCTTC
AGGCCAGGCGTCACCCACAGGACAACCTACAGCCCTGCAGCCCAACCCTCTGGATCTCTTCAAACAAGTGCTCC
TGCCCCAGTGGGGCCCCAGGTGGGTCTAGGTGGTGTAAGTGTACACTTCCTCAGGCAGGACCATGGAACACAGC
ATCTTTGGTCTTCAATCAGTCCCCTTCAATGGCTCCGGGAGCCATGATGGGTGGTCAACCTTCAGGTTTTAGTCA
GCCCCGTCATTTTTGGGTACAAGTCCAGCTGTTTCAGGTTGGAACCAGCCTTCACCCTTTCAGCCTCAACTCCCCC
TCCAGTGCCTGTTGTCTGGGGCCCTTCTGCATCTGTGGCACCCAATGCTTGGTCAACAACAAGCCCTTTGGGGAA
TCCTTTTCAGAGCAATATTTTTCCAGCTCCTGCTGTGTCCACTCAGCCCCCATCCATGCACTCCTCTCTCCTGGT
CACTCCTCCTCAGCCACCTCCCAGAGCTGGCCCTCCCAAGGACATCTCCAGTGATGCCTTCACTGCCTTAGACCC
ACTTGGGGATAAAGAGATCAAGGATGTGAAAGAAATGTTTAAGGATTTCCAAGTGCAGGAGCCACCTGCTGTGCC
CGCGCGGAAGGGAGAGCAGACTTCTTCTGGGACTTTGAGTGCCCTTGCCAGTTATTTCAACAGCAAGGTTGGCAT
TCCTCAGGAGAATGCAGACCATGATGACTTTGATGCTAATCAACTATTGAACAAGATCAATGAACCACCAAAGCC
AGCTCCCAGACAAGTTTCCCTGCCAGTTACCAAATCTACTGACAAATGCATTTGAGAACCCTTTCTTTAAAGATTCT
TTTTGGTTCATCACAAGCCTCTGTGGCTTCTTCTCAACCTGTATCTTCTGAGATGTATAGGGATCCATTTGGAAA
TCCTTTTGCC**TAA**ATTCTGAACTTGGTCTGCAGACCATCCAGAGGAATAAAAAGGTTGGCCTTAGTAGTCAAAAA
CAAAGCTGATAGCCAGACAGTTCTGATTTCTGCCCTTGTTCAGCTTTGACGTATTATCTGTTGCCTTATTTCT
CATTGCCTCTTCTACTTGTAAATGCTTTTCACTTTCTGTCTAGGTTAAAGCTAAACTGAATCTATGGCTTTAAA
TAAATTAAGATCCTAAACTCTCTAGCTTAAGTGAAATGAAGTACAGTAGTTTCCCTACTGAACCCTGCCTCTTG
TGTCCCTGGAACCTTCTAGAACACCTGCCTTCTACCCTCTGGTTGGGAGATGCAGCCACCACATCCCTTCATATC
ATACTGTTTTGAATAAATTTTCAAATCCTTAAAAA

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FIGURE 717

MSNEVETSATNGQPDQQAAPKAPSKKEKKKGPEKTDEYLLARFKGDGVKYKAKLIGIDDPDARGDKMSQDSMMK
LKGMAAAGRSQGQHKQRIWVNISLSGIKIIDEKTGVIEHEHPVNKISFIARDVTDNRAFGYVCGGEGQHQFFAIK
TGQQAEPVLDLKDLEFQVIYNVKKKEEEEKKKIEEASKAVENGSEALMILDDQTNKLKSESKDILLVDLSEIDTN
QNSLRENPFLLTNGITSCSLPRPTQASFLPENAFSANLNFFPTPNPDPPFRDDPFTQPDQSTPSSFDLSPDQKK
ENSSSSSTPLSNGPLNGDVDFGQQFDQISNRTGKQEAQAGPWPFSSSQTPAVRTQNGVSEREQNGFSVKSSPN
PFVGSPPKGLSIQNGVKQDLESSVQSSPHDSIAIIPPPQSTKPGRGRRTAKSSANDLLASDIFAPPVSEPSGQAS
PTGQPTALQPNPLDLFKTSAPAPVGPQVGLGGVTVTLPQAGPWNTASLVFNQSPSMAPGAMMGQPSGFSQPVI
GTSPAVSGWNQPSPFPAASTPPVPVWGPASVAPNAWSTTSPLGNPFQSNIFPAPAVSTQPPSMHSSLLVTPPQ
PPPRAGPPKDISSDAFTALDPLGDKEIKDVKEMFKDFQLRQPPAVPARKGEQTSSGTLAFASYFNSKVGIPQEN
ADHDDFDANQLLNKINEPPKPAPRQVSLPVTKSTDNAFENPFFKDSFGSSQASVASSQPVSSSEMYRDPFGNPFA

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FIGURE 718

GTCGCGCCATTTTGCCGGGGTTTGAATGTGAGGCGGAGCGGCGGCAGGAGCGGATAGTGCCAGCTACGGTCCGCG
GCTGGGGTTCCCTCCTCCGTTTCTGTATCCCCACGAGATCCTATAGCA**AATG**GAACTCAGCGATGCAAATCTGCAA
ACACTAACAGAATATTTAAAGAAAACACTTGATCCTGATCCTGCCATCCGACGTCCAGCTGAGAAATTTCTTGAA
TCTGTTGAAGGAAATCAGAATTATCCACTGTTGCTTTTGACATTACTGGAGAAGTCCCAGGATAATGTTATCAAA
GTATGTGCTTCAGTAACATTCAAAAACATATATTAAAGGAACTGGAGAATTGTTGAAGATGAACCAAACAAAATT
TGTGAAGCCGATCGAGTGGCCATTAAAGCCAACATAGTGCACCTGATGCTTAGCAGCCCAGAGCAAATTCAGAAG
CAGTTAAGTGATGCAATTAGCATTATTGGCAGAGAAGATTTCCACAGAAATGGCCTGACTTGCTGACAGAAATG
GTGAATCGCTTTCAGAGTGGAGATTTCCATGTTATTAATGGAGTCCTCCGTACAGCACATTTCATTATTTAAAGA
TACCGTCATGAATTTAAGTCAAACGAGTTATGGACTGAAATTAAGCTTGTTCTGGATGCCTTTGCTTTGCCTTTG
ACTAATCTTTTAAAGGCCACTATTGAACTCTGCAGTACCCATGCAAATGATGCCTCTGCCCTGAGGATTCTGTTT
TCTTCCCTGATCCTGATCTCAAAATTGTTCTATAGTTTAAACTTTCAGGATCTCCCTGAATTTTGGGAAGGTAAT
ATGGAACTTGGATGAATAATTTCCATACTCTCTTAACATTGGATAATAAGCTTTTACAACTGATGATGAAGAG
GAAGCCGGCTTATTGGAGCTCTTAAATCCCAGATTTGTGATAATGCCGCACTCTATGCACAAAAGTACGATGAA
GAATTCAGCGATACCTGCCTCGTTTTGTTACAGCCATCTGGAATTTACTAGTTACAACGGGTCAAGAGGTTAA
TATGATTTGTTGGTAAGTAATGCAATTCATTTCTGGCTTCAGTTTGTGAGAGACCTCATTATAAGAATCTATTT
GAGGACCAGAACACGCTGACAAGTATCTGTGAAAAGGTTATTGTGCCTAACATGGAATTTAGAGCTGCTGATGAA
GAAGCATTGAAGATAATTCTGAGGAGTACATAAGGAGAGATTTGGAAGGATCTGATATTGATACTAGACGCAGG
GCTGCTTGTGATCTGGTACGAGGATTATGCAAGTTTTTTGAGGGACCTGTGACAGGAATCTTCTCTGGTTATGTT
AATTCCATGCTGCAGGAATACGCAAAAATCCATCTGTCAACTGGAAACACAAAGATGCAGCCATCTACCTAGTG
ACATCTTTGGCATCAAAGCCCAAACACAGAAGCATGGAATTACACAAGCAAATGAACTTGTAACCTAACTGAG
TTCTTTGTGAATCACATCTCCCTGATTTAAATCAGCTAATGTGAATGAATTCCTGTCTTAAAGCTGACGGT
ATCAAATATATTATGATTTTTAGAAATCAAGTGCCAAAAGAACATCTTTTAGTCTCGATTCTCTCTTGATTAAT
CATCTTCAAGCTGGAAGTATTGTTGTTTCATACTTACGCAGCTCATGCTCTTGAACGGCTCTTTACTATGCGAGGG
CCTAACAAATGCCACTCTCTTTACAGCTGCAGAAATCGCACCGTTTGTGAGATTCTGCTAACAAACCTTTTCAA
GCTCTCACACTTCCCTGGCTCTTTCAGAAAATGAATATATTATGAAAGCTATCATGAGAAGTTTTTCTCTCTACAA
GAAGCCATAATCCCCTACATCCCTACTCTCATCACTCAGCTTACACAGAAGCTATTAGCTGTTAGTAAGAACCCA
AGCAAACCTCACTTTAACTACTACATGTTTGAAGCAATATGTTTATCCATAAGAATAAATTGCAAAGCTAACCTT
GCTGCTGTTGTAAATTTTGAGGAGGCTTTGTTTTTGGTGTTTACTGAAATCTTACAAAATGATGTGCAAGAATTT
ATTCCATACGTCTTTCAAGTGATGTCTTTGCTTCTGGAAACACACAAAATGACATCCCGTCTTCTATATGGCC
TTATTTCTCATCTCCTTCAGCCAGTGCTTTGGGAAAGAACAGGAAATATTCTGCTCTAGTGAGGCTTCTTCAA
GCATTCTTAGAACGCGGTTCAAACACAATAGCAAGTGCTGCAGCTGACAAAATTCCTGGGTTACTAGGTGTCTTT
CAGAAGCTGATTGCATCCAAGCAAATGACCACCAAGGTTTTTATCTTCTAAACAGTATAATAGAGCATGCCT
CCTGAATCAGTTGACCAATATAGGAAACAAATCTTCATTCTGCTATTCCAGAGACTTCAGAATTCAAAACAACC
AAGTTTATCAAGAGTTTTTTAGTCTTTATTAATTTGTATTGCATAAAATATGGGGCACTAGCACTACAAGAAATA
TTTGATGGTATACAACCAAAAATGTTTGAATGGTTTTGGAAAAAATTATTATTCCTGAAATTCAGAAGGTATCT
GGAAATGTAGAGAAAAAGATCTGTGCGGTTGGCATAACCAACTTACTAACAGAATGTCCCCCAATGATGGACACT
GAGTATACCAAACCTGTGGACTCCATTATTACAGTCTTTGATTGGTCTTTTTGAGTTACCCGAAGATGATACCAT
CCTGATGAGGAACATTTTATTGACATAGAAGATACACCAGGATATCAGACTGCCTTCTCACAGTTGGCATTGCT
GGGAAAAAAGAGCATGATCCTGTAGGTCAAATGGTGAATAACCCCAAATTCACCTGGCACAGTCACTTCACATG
TTGTCTACCGCTGTCCAGGAAGGTTCCATCAATGGTGAGCACCAGCCTGAATGCAGAAGCGCTCCAGTATCTC
CAAGGGTACCTTCAGGCAGCCAGTGTGACACTGCTT**TAAA**ACTGCATTTTTCTAATGGGCTAAACCCAGATGGTTT
CCTAGGAAATCACAGGCTTCTGAGCACAGCTGCATTAAAACAAAGGAAGTTTTCTTTTGAACCTGTACGA

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FIGURE 719

MELSDANLQTLTEYLKKTLDPDPAIRRPAEKFLESVEGNQNYPLLLLTLLEKSQDNVIKVCASVTFKNYIKRNWR
IVEDEPNKICEADRVAIKANIVHMLSSPEQIQKQLSDAISIIIGREDFPQKWPDLLTEMVNRFGSGDFHVGVL
RTAHSLEFKRYRHEFKSNELWTEIKLVLDALPLTNLFKATIELCSTHANDASALRILFSSLILISKLFYSLNFQ
DLPEFWEGNMETWMNNFHTLLTLDNKLLQTDDEEEAGLLELLKSQICDAAALYAQKYDEEFQRYLPRFVTAIWNL
LVTTGQEVKYDLLVSNAIQFLASVCERPHYKNLFEDQNTLTSICEKVIVPNMEFRAADEEAFEDNSEEYIRRDL
GSDIDTRRAACDLVRGLCKFFEGPVTGIFSGYVNSMLQEYAKNP SVNWKHKDAIYLVTSLASKAQTQKHGITO
ANELVNLTEFFVNHLPLDLKSANVNEFPVLKADGIKYIMIFRNQVPKEHLLVSIPLLINHLQAGSIVVHTYAHA
LERLFTMRGPNNATLFTAAEIAPFVEILLTNLFKALTLPGSSENEYIMKAIMRSFSLQEAIIPYIPTLITQLTQ
KLLAVSKNPSKPHFNHYMFEAICLSIRITCKANPAAVVNFEELFLVFTEILQNDVQEFIPYVFQVMSLLETHK
NDIPSSYMALEFPVLLQPVWERTGNIPALVRLQAFLEGRSNTIASAAADKIPGLLGVFQKLIASKANDHQGFYL
LNSIIEHMPPEVDQYRKQIFILLFQRLQNSKTTKFIKSFLVINLYCIKYGALALQEIFDGIQPKMFGMVLEKI
IIPYIQLVSGNVEKKICAVGITNLLTECPPMMDTEYTKLWTPLLQSLIGLFELPEDDTIPDEEHFIDIEDTPGYQ
TAFSQLAFAGKKEHDPVGMVNNPKIHLAQSLHMLSTACPRVPSMVSTSLNAEALQYLQGYLQAASVTLL

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FIGURE 720A

CCGTCCCGGGGCGGACGGGCGCGGGCGGGAGGATGGAGCTGAACTCCCTGCTGATCCTGCTGGAGGCGGCCGAGT
ACCTGGAGCGCAGGGATCGAGAGGCCGAGCACGGCTACGCCTCGGTGCTGCCCTTCGACGGCGACTTCGCCAGGG
AGAAAACAAAGGCGGCCGGCTGGTGCACAAGGCCCGAACAACAGGTCTTCACACAACGAGCTAGAAAAGCACA
GACGAGCCAACTCAGGCTGTACCTTGAGCAGCTCAAGCAACTGGTGCCCTGGGCCCCGACAGCACCCGCCACA
CCACGCTGAGCCTCCTGAAGCGGGCCAAGGTGCACATCAAGAACTGGAGGAGCAGGACCGCCGGGCACTGAGCA
TCAAGGAGCAGCTGCAGCAGGAGCATCGTTTTCTGAAGCGGCGCCTGGAGCAGCTGTGGTGCAGAGCGTGGAGC
GCGTGCACACAGATAGCACGGGCTCTGCTGTCTCCACGGACGACTCAGAGCAAGAAGTGGACATAGAGGGCATGG
AGTTTGGCCCTGGTGAGCTGGACAGTGTGGCAGCAGAGTGACGCGGACGACCACTACAGCCTGCAGAGTGGCA
CCGGCGGCGACAGTGGCTTCGGGCCCCACTGCCGGCGGCTGGGCGCCCCGCCCTCTCGTAGGCCCGTGCCCTCT
GCTCCTTGGCCTGCCTGCCCGCCAGCCACGCGTGTACGCCCTCCAGTTCTCCTTCAGTTGACGCCAGCCTCTCCA
CAGGCCCCACTGCTGTGCCATTCTGGAAGCTCCAGCTGCTGCTGGGCTGCCTGGCACTGCCCGCTTGCCGGTCAGG
GCCTGCCGAGCTGCCTGCCCTTCCAGCTGGGCAGAGTCCCCTGCAAGGAGGCAGGGGCCAGCTTCCACATCCGG
AGCCCTGGTCAGCATAGCCGCCACGGTCTGTCTCAGATTCTTAATCATTCCAGAAGTATTAAACGTCATTGCT
GCAAACCTCGGCAGGTGCCGTGTGAGGGGCTTAATGACCACCACAGGGAGCTCAGACCCCAACCCTGGATCCAG
GAGAAAGGAGTGGACCGAGGAAGGAAGGAAGGAAGGCTGTCTGTCCATCCGTCCGTCTGTCCACCTACCTGTCA
GTCCACATAGGCTCCTGGCGTGGACAAGGGGTCTGTGAAGGGCGGGAACGGGTGAGCACCTGGGGCAGGTGGGT
GGTTAAGGTCCTTCCCACTTCGCAGGTGTGAGAACCTAGGGCTGGGCTCTCGGGGCCAGGCAGGCCAGCCAGCC
CACGCCGAGCTGGGCAGCGTCTGCTCTGGTAGGACTGTGACGCGACACGCGCACGCACCTAGACACACCCACTC
ATGTACATGCTCACACATGCAGACACACCTGGGCGTCCCAGGTCACATGTTCTGGGGATGATGGCCTTCAGGGG
TCATCTGGCAAACAGCCCCCTGGGCTGTGCCTGGATCCCCCTCTAGCTCCTGCTACCCACGCCACCCAGTAGTC
CTGCCTGTCTGCACAGGAGAGGGGCTTCTCTTCTGGCTGGGGCTGGGGTGAACGGAGGCTGGTTAAGTTGCAG
CCGCTGGGTCTCGGGGGCTTACTCATCTCCCTTTTTTAAACAAAAAGCAAAAAAGTAAAATGCTGCACTGCCCA
GCAGCCCGGTAGGGCTCCTGGAGCCACCTTAGGAAAGGGCTTCTCATGAGCTCTGCTGCGGCAGCTTCAGCTGG
CAGAGAGGCTTTCCCAGAAAAAAGAAAAAACCATTTTTTAAAAAGAAAGCCATAAGACTCTCGGCCTAGGGA
CGTCCGTGTGTGCCGCTCTGTTTCTGTACCAGATTTTTGTATTCTATTTTCTTAGCTGTTGTTGCGTCTTGT
TTGCTGAGGGGTGGGAGCCACCCAGCGTCTCAGGGACCTGTCCCTCCGTCACGTCGTCAAAGTGTGCCTTGTGTC
TTGTGTGAGGCCCTTGCCCTTCCCACCAGCATGTCCCTCGTGGCTCAGGGTGCCCCAGGCCTGCCAGCTAGTGCT
GTCCTCCCATCTCCTGTGGGCAGCCCTCCCAGCAGCCAGGGCTTCTGGAGGCGATGCAGCCAGGCCCCCTGTGG
GTGGCACGGAGGGGCTGTGACCTGGTCCCCAGTGTTGCCCTCCCCAGTGGCTGGCAGGGGCTGCTTGCTCACTA
GAGAGATGGATTCTCACCTGTACCTGACTCGAGCCCCCTGCTTCTTGCCCTAGGCGAGGGTTCCAGGTTTCAGA
CACTGGCAGCCAATGAAGACTGTGCTCGCTGGGTGGTGCAGGCCTGGCACCAGGAGGCTTGACCCGCTTTCTCT
TCCTGACGTCCTCTGTCTTGGGGCTGGCCCATAGCAGTGCCTGCCGTGCTCTGGTACATCTGTAGCCAATTCC
CATATCATGGGAAAAATTCTGTCTATTTTTAGTCGTACGCATAGACGCCCCAGGATGGGGGGCCCACTGTGGCG
GAAGGGGGTCCCTGGAAACAACCTGGCACAGAACCTGCCCTGCAGGCTGTAGGGGGCATGGTGCCTGGAGCTGA
GGGGCATCCGAACGCGTTGCGGGTGGTTGTGAGGAGGCTGTCTGCATCTCCTTCCGGCCCCACTGGGGTCCAGG
GGTGCCAGAAAGGAGCTTCCCTGCCTGCCTGAGTCTGTCCCCCAGGCTTCATTTCAAACACCGTGGCACCTC
CGAGCAAGGCGGGCCGTGTGTAAAGCTTGCTTCCCCAGCCAGCACTGCAGGGCCCTGAGGTGGTCTGTCTCCCTG
CCCTCAATTCTTGAAGCACCAGCTCCCTGCCCCACCCTCCAGTGCCTGAGGCAGCTAGGGGCTTCTGCTCTCATC
TCTGACCAGCAGAAATCCACCCGGTGACCAGTGGTGGCCCCCTCAGCCCAACCCTCCCGGCAGCTCAGCCTGTGGCTC
TTGAGGCCGTGGTTCCACGTGGACTGGGAGGCACTCTAGCCACCCGGGGTGCTGTTAGCTGCCCTCCCTGC
CATCAGCAGGTGGGTGAGGGGTGGCCACTGGGTGGGGGGCCGTGCTAGGAGTACCACATGCTCCAACCTCCCA
CTGCTCCCTGTGAGGGGGCCAGGCTGCCATCACTGGAGGCTGCAGGGACCAAGAGGCCATCACCCTGTCTATAGA
GAGCAGACAGAAGCAGAACAGAGCCCGGGGCTCCTGAGCCTCTGCGTGTGCCCTCCAGCCACACCAGTGCTCT
CGGCCACTGAGCACCCAGACTCAGGCTTGGGTTCCTCAGCCTTATTGGAAGGCAGCTCCCGCATACCAGGATAAC
CCCCGCAAACCACATAGCAGACCCCGCCATCCTCGCAGAGTGGGAGAGGCTGCAGCAAGGCTTTGCCCTCTGCAG
ACCCCATCTTAGTGGCACGGTGTGGGCTGTGTCCCCGGGTGGTGGAAACCTGTACCGGTCTGTGGCCCTAGG
GTCCCTGCTCTGTCTGCCCGGCCCGTGTGTCCGCTGGGTGAGGCAGGCTCCCCCGTGCCCTGCCTCCCTCTGT
CAGGGAACCTGGGACCCCTCCCACTGCCTGCACAGAGGACCTGACCTCGGCCAGCAGGGTGGCCCCAGGTC

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FIGURE 720B

CATGTTGGGCACTAGGGCAGGTTCCGTGCCAGAGTCGGGGGCCACACGAGGGCCTGGTGCCGGTGAGGGGGGCGT
GCGCTAGAGGGGAAAGGGGCCCCCGGCCACCTGTCCACCGTGTGGGCCGTGCTGTGTCCTTATGTCATTGTAAT
ATAAATACAGATTTTTATATCTC

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FIGURE 721

MELNSLLILLEAAEYLERRDREAEGYASVLPFDGDFAREKTKAAGLVRKAPNNRSSHNELEKHRRAKLRLYLEQ
LKQLVPLGPDSTRHTTSLKRAKVHIKKLEEQDRRALSIKEQLQQEHRFLKRRLEQLSVQSVERVRTDSTGSAV
STDDSEQEVDIEGMEFGPGELDSVGSSSDADDHYSLSGTGGDSGFGPHCRRRLGRPALS

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FIGURE 722

FIGURE 722

[illegible]

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FIGURE 723

MQQPFNYPYPQIYWVDSSASSPWAPPGTVLPCPTSVPRRPGQRRPPPPPPPPPLPPPPPPPLPPLPLPPLKKRG
NHSTGLCLLVMFFMVLVALVGLGLGMFQLFHLQKELAELESTSQMHTASSLEKQIGHPSPPPEKKELRKVAHLT
GKSNSRSMPLWEDTYGIVLLSGVKYKKGGLVINETGLYFVYSKVYFRGQSCNNLPLSHKVYMRNSKYPQDLVMM
EGKMMSYCTTGQMWARSSYLGAVERNLTADHLYVNVSELSLVNFEESQTFFGLYKL

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FIGURE 724

ACTAAGACCGCAAGGCATTTCATTTCTCTCTACGGTGGATGCGGACGCCGGGAGGAGAGAGCCCCAGAGAGAGGA
GCTGGGAGCGGAGGCGCAGGCAATGCTCAGCCCTGGATGTAGCTGAGAGGCTGGGAGAAGAGACGACCGCTGGAG
ACCGAGCGGCGTGGGGAAGACCTAGGGGGGTGGGTGGGGGAAGCAGACAGGAGAACACTCGAAATCAAGCGCTTT
ACAGATTATTTTATTTTGTATAGAGAACACGTAGCGACTCCGAAGATCAGCCCCAATGAACATGTCAGTGTGAC
TTTACAAGAATATGAATTGAAAAGCAGTTCAACGAGAATGAAGCCATCCAATGGATGCAGGAAAACCTGGAAGAA
ATCTTTCTGTTTTCTGCTCTGTATGCTGCCTTTATATTCGGTGGTTCGGCACCTAATGAATAAACGAGCAAAGTT
TGAACCTGAGGAAGCCATTAGTGCTCTGGTCTCTGACCCTTGCACTCTTCAGTATATTCGGTGTCTCTCGAACTGG
TGCTTATATGGTGTACATTTTGATGACCAAAGGCCTGAAGCAGTCAGTTTGTGACCAGGGTTTTTACAATGGACC
TGTCAGCAAATCTGGGCTTATGCATTTGTGCTAAGCAAAGCACCCGAACTAGGAGATACAATATTCATTATTCT
GAGGAAGCAGAAGCTGATCTTCTGCACTGGTATCACCACATCACTGTGCTCCTGTACTCTTGGTACTCCTACAA
AGACATGGTTGCCGGGGGAGGTTGGTTCATGACTATGAACTATGGCGTGACGCCGTGATGTACTCTTACTATGC
CTTGCGGGCGGCAGGTTTCCGAGTCTCCCGGAAGTTTGCCATGTTTCATCACCTTGTCAGATCACTCAGATGCT
GATGGGCTGTGTGGTTAACTACCTGGTCTTCTGCTGGATGCAGCATGACCAGTGCTACTCTCACTTTTCAAGCAT
CTTCTGGTCTCACTCATGTACCTCAGCTACCTTGTGCTCTTCTGCCATTTCTTCTTTGAGGCCTACATCGGCAA
AATGAGGAAAAACAAGAAAGCTGAATAGTGTGGAACTGAGGAGGAAGCCATAGCTCAGGGTCATCAAGAAAAAT
AATAGACAAAAAGAAATGGCACAAGGAATCACACGTGGTGCAGCTAAAAACAAAACAAACATGAGCAAAACACAAA
ACCCAAGGCAGCTTAGGGATAATTAGGTTGATTTAACCCAGTAAGTTTATGATCCTTTTAGGGTGAGGACTCACT
GAGTGCACCTCCATCTCCAAGCACTGCTGCTGGAAGACCCCCATTCCCTCTTTATCTATCAACTCTAGGACAAGGG
AGAACAAAAGCAAGCCAGAAGCAGAGGAGACTAATCAAAGGCAAACAAAGGCTATTAACACATAGGAAAATATGT
ATTTACTAAGTGTACATTTCTCTAAGATGAAAGATTTTACTCTAGAACTGTGCGAGCACACACACACAATC
CTTTCTAACTTTATGGACACTAACTGGAGCCAATAGAAAAGACAAAAATGAAAGAGACACAGGGTGTATATCTA
GAACGATAATGCTTTTGCAGAACTAAAGCCTTTTTAAGAAATGCCAGCTGCTGTAGACCCCATGAGAAAAGATG
TCTTAATCATCCTTATGAAAACAGATGTAAACAACATATTTCACTAACTTCATCTTCACTGCATAGCCTCAGG
CTAGTGAGTTTGCCAAAACCAAAGGGGGTGAATACTTCCCCAAGATTCTTCTGGGAGGATGGAACAGTGCAGC
CCAGGTCCCATGGGGGCAGCTCCATCCAGAGCATTCTGTATAGTTGAACTGTAATTTCTACTCTTAAGTGAGAT
ATGAAGTATTATCCTTTTGTTCAGTTGCCCGGGCTTTTGAACAGAAGAGTAAATACAGAATTGAAAAAGATAAA
CACTCAACCAAAACAATGTGAAAACGGGTTCTGTAGTATTTGTAAAAAGGCCCGGCCAGGACCACTGTGAGCTGG
AAAAGGGAGAAAAGGCAGTGGGAAAAGAGGTGAGCCGAAGATCAATTTCGACAGACAGACGGTGTGTATGCCCTCC
CTGTTTGACTTCACACACACTCATAACTTTCCAAATGAAACCCACAGTATAGCGCATATTTTCGATATTTTTGT
GAATTCCAAAAGGAAATCACAGGGCTGTTTCAAAATATTGGGGGAACACTGTGTTTCTGCATCATCTGCATTTGCT
CCCCAAGCAATGTAGAGGTGTTTAAAGGGCCCTCTGCTGGCTGAGTGGAATACTACAACAACTTCAAGGCAAG
TTTGGCTGAAAACAGTTGACAACAAAGGGCCCCCATAACCTTATCCCTCAAATTTTAAAGTGATATGAAATACTTG
TCATGTCTTTGGCCAAATCAGAAGATATTCATCCTGCTTCAAGTCAGCTTCAGAAATGTTTTAAAGGGACTTTA
GCTCTGGAACCAAAATCAATTTATTAAGAGCCATATTCCTTAAAAAAGCTGGATAATATTATCTGTAATA
TTTCAGTCCTTTACAAGCCAAATACATGTGTCAATGTTTCTAGTATTTCAAAGAAGCAATTATGTAAAGTTGTTT
AATGTGACATAATAGTATTATAATTGGTTAAGTAGCTTAATGATTAGGCAAACTAGATGAAAAGATTAGGGGCTT
CCACACTGCATAGATCACACGCACATAGCCACGCATACACACACAGACACACAGATGTGGGGTACACTGAATTTT
AAAGCCCAATGAATAGAAAACATTTTCTGGCTAGCAGAAAAAACAACAAACTGTTGTTTCTCTTTCTTG
CTTTGAGAGTGACAGTAAAAGGGATTTTTTCGAATTATTTTATATTATTTAGCTTTAATTGTGCTGTCGTTT
ATGAAACAGAGCTGCTCTGCTTTTCTGTGAGATGGCAAGGGCTTTTTCAGCATCTCGTTTATGTGTGGAATTT
AAAAAGAATAAGTTTTTATTCCATTCTGAAAAAATAAAAAAAAAA

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FIGURE 725

MNMSVLTQLQEYEFKQFNENEAIQWMQENWKKSFLLSALYAAFIFGGRHLMNKRAKFE LRKPLVLWSLTLAVFSI
FGALRTGAYMVYILMTKGLKQSVCDQGFYNGPVSKFWAYAFVLSKAPELGDTIFIILRKQKLIFLHWYHHITVLL
YSWYSYKDMVAGGGWFMTMNYGVHAVMYSYYALRAAGFRVSRKFAMFITLSQITQMLMGCVVNYLVFCWMQHDQC
HSHFQNIWFSSLMYLSYLVLFCHFFFEAYIGKMRKTTKAE

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FIGURE 726

GACGTTTCGCGCCAATTTCCGGTTGGCCGGCCACAGTCCACCGCGCGGAGATTCTCAGCTTCCCCAGGAGCAAGAC
CTCTGAGCCCCGCCAAGCGCGGCCGCACGGCCCTCGGCAGCG**ATG**GCACTGAAGGACTACGCGCTAGAGAAGGAAA
AGGTTAAGAAGTTCTTACAAGAGTTCTACCAGGATGATGAACTCGGGAAGAAGCAGTTCAAGTATGGGAACCACT
TGGTTCCGGCTGGCTCATCGGGAACAGGTGGCTCTGTATGTGGACCTGGACGACGTAGCCGAGGATGACCCCGAGT
TGGTGGACTCAATTTGTGAGAATGCCAGGCGCTACGCGAAGCTCTTTGCTGATGCCGTACAAGAGCTGCTGCCTC
AGTACAAGGAGAGGGAAGTGGTAAATAAAGATGTCCTGGACGTTTACATTGAGCATCGGCTAATGATGGAGCAGC
GGAGTCGGGACCCCTGGGATGGTCCGAAGCCCCCAGAACCAGTACCCTGCTGAACTCATGCGCAGATTTGAGCTGT
ATTTTCAAGGCCCTAGCAGCAGCAAGCCTCGTGTGATCCGGGAAGTGCGGGCTGACTCTGTGGGGAAGTTGGTAA
CTGTGCGTGGAATCGTCACTCGTGTCTCTGAAGTCAAACCCAAGATGGTGGTGGCCACTTACACTTGTGACCAGT
GTGGGGCAGAGACCTACCAGCCGATCCAGTCTCCCACTTTTCATGCCTCTGATCATGTGCCAAGCCAGGAGTGCC
AAACCAACCGCTCAGGAGGGCGGCTGTATCTGCAGACACGGGGCTCCAGATTCATCAAATTCCAGGAGATGAAGA
TGCAAGAACATAGTGATCAGGTGCCTGTGGGAAATATCCCTCGTAGTATCACGGTGCTGGTAGAAGGAGAGAACA
CAAGGATTGCCCAGCCTGGAGACCACGTACGCGTCACTGGTATTTCTTGCCAATCCTGCGCACTGGGTTCCGAC
AGGTGGTACAGGGTTTACTCTCAGAAACCTACCTGGAAGCCCATCGGATTGTGAAGATGAACAAGAGTGAGGATG
ATGAGTCTGGGGCTGGAGAGCTCACCAGGGAGGAGCTGAGGCAAATTGCAGAGGAGGATTTCTACGAAAAGCTGG
CAGCTTCAATCGCCCCAGAAATATACGGGCATGAAGATGTGAAGAAGGCACTGCTGCTCCTGCTAGTCGGGGGTG
TGGACCAGTCTCCTCGAGGCATGAAAATCCGGGGCAACATCAACATCTGTCTGATGGGGGATCCTGGTGTGGCCA
AGTCTCAGCTCCTGTCTATACATTGATCGACTGGCGCCTCGCAGCCAGTACACAACAGGCCGGGGCTCCTCAGGAG
TGGGGCTTACGGCAGCTGTGCTGAGAGACTCCGTGAGTGAGGAACTGACCTTAGAGGGTGGGGCCCTGGTGTGG
CTGACCAGGGTGTGTGCTGCATTGATGAGTTGACAAAGATGGCTGAGGCCGACCGCACAGCCATCCACGAGGTCA
TGGAGCAGCAGACCATCTCCATTGCCAAGGCCGGCATTCTCACCACACTCAATGCCCCGCTGCTCCATCCTGGCTG
CCGCCAACCCTGCCTACGGGCGCTACAACCCTCGCCGCAGCCTGGAGCAGAACATACAGCTACCTGCTGCACTGC
TCTCCCGGTTTGACCTCCTCTGGCTGATTGAGGACCGGCCCCGACCGAGACAATGACCTACGGTTGGCCAGCACA
TCACCTATGTGCACCAGCACAGCCGGCAGCCCCCTCCCACTTTGAACCTCTGGACATGAAGCTCATGAGGCGTT
ACATAGCCATGTGCCGCGAGAAGCAGCCCATGGTGCCAGAGTCTCTGGCTGACTACATCACAGCAGCATACGTGG
AGATGAGGCGAGAGGCTTGGGCTAGTAAGGATGCCACCTATACTTCTGCCCGGACCCTGCTGGCTATCCTGCGCC
TTTCCACTGCTCTGGCACGTCTGAGAATGGTGGATGTGGTGGAGAAAGAAGATGTGAATGAAGCCATCAGGCTAA
TGGAGATGTCAAAGGACTCTCTTCTAGGAGACAAGGGGCAGACAGCTAGGACTCAGAGACCAGCAGATGTGATAT
TTGCCACCGTCCGTGAACTGGTCTCAGGGGGCCGAAGTGTCCGGTTCTCTGAGGCAGAGCAGCGCTGTGTATCTC
GTGGCTTACACCCGCCAGTTCCAGGCGGCTCTGGATGAATATGAGGAGCTCAATGTCTGGCAGGTCAATGCTT
CCCGGACACGGATCACTTTTGTCT**TG**ATTCCAGCCTGCTTGCAACCCTGGGGTCCTCTTGTTCCCTGCTGGCCTGC
CCCTTGGGAAGGGGCAGTGATGCCTTTGAGGGGAAGGAGGAGCCCCCTCTTCTCCCATGCTGCACTTACTCCTTT
TGCTAATAAAAGTGTTTGTAGATTGTC

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FIGURE 727

MALKDYALEKEKVKKFLQEFYQDDELGKKQFKYGNQLVRLAHREQVALYVDLDDVAEDDPELVDSICENARRYAK
LFADAVQELLQPQKEREVNKDVLVDVYIEHRLMMEQSRDPMVRSPQNQYPAELMRRFELYFQGPSSSKPRVIR
EVRADSVGKLVTVRGIVTRVSEVKPKMVVATYTCDCGAETYQPIQSPTFMPLIMCPSQECQTNRSGGRLYLQTR
GSRFIKFQEMKMQEHSQVFPVGNIPRSITVLVEGENTRIAQPGDHVSVTGIFLPILRTGFRQVVQGLLSETYLEA
HRIVKMNKSEDDSGAGELTREELRQIAEEDFYEKLAASIAPEIYGHEDVKKALLLLLVGVDQSPRGMKIRGNI
NICLMGDPGVAKSQLLSYIDRLAPRSQYTTGRGSSGVGLTAAVLRDSVSGELTLEGGALVLADQGVCCIDEFDKM
AEADRTAIEVMEQQTISIAGILTTLNARCSILAAANPAYGRYNPRRSLEQNIQLPAALLSRFDLLWLIQDRP
DRDNDLRLAQHITYVHQHSRQPPSQFEPLDMKLMRRYIAMCREKQPMVPESLADYITAAYVEMRREAWASKDATY
TSARTLLAILRLSTALARLRMVDVVEKEDVNEAIRLMEMSKDSLGDKGQTARTQRPADVIFATVRELVSGGRSV
RFSEAEQRCVSRGFTPAQFQAALDEYEELNVWQVNASRTRITFV

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FIGURE 728

GCGGAGCGAGAGGCTGAGAGAGTCGGAGACACTATCCGCTTCCATCCGTCGCGCAGACCCTGCCGGAGCCGCTGC
CGCTATGGATGATCGAGAGGATCTGGTGTACCAGGCGAAGCTGGCCGAGCAGGCTGAGCGATACGACGAAATGGT
GGAGTCAATGAAGAAAGTAGCAGGGATGGATGTGGAGCTGACAGTTGAAGAAAGAAACCTCCTATCTGTTGCATA
TAAGAATGTGATTGGAGCTAGAAGAGCCTCCTGGAGAATAATCAGCAGCATTGAACAGAAAGAAGAAAACAAGGG
AGGAGAAGACAAGCTAAAAATGATTTCGGGAATATCGGCAAATGGTTGAGACTGAGCTAAAGTTAATCTGTTGTGA
CATTCTGGATGTACTGGACAAACACCTCATTCCAGCAGCTAACACTGGCGAGTCCAAGGTTTTCTATTATAAAAT
GAAAGGGGACTACCACAGGTATCTGGCAGAATTTGCCACAGGAAACGACAGGAAGGAGGCTGCGGAGAACAGCCT
AGTGGCTTATAAAGCTGCTAGTGATATTGCAATGACAGAAGTTCCACCAACGCATCCTATTTCGCTTAGGTCTTGC
TCTCAATTTTTCCGTATTCTACTACGAAATTCTTAATTCCTGACCGTGCCTGCAGGTTGGCAAAGCAGCTTT
TGATGATGCAATTGCAGAACTGGATACGCTGAGTGAAGAAAGCTATAAGGACTCTACACTTATCATGCAGTTGTT
ACGTGATAATCTGACACTATGGACTTCAGACATGCAGGGTGACGGTGAAGAGCAGAATAAAGAAGCGCTGCAGGA
CGTGGAAGACGAAAATCAGTGAGACATAAGCCAACAAGAGAAACCATCTCTGACCACCCCTCCTCCCCATCCCA
CCCTTTGGAAACTCCCCATTGTCCTGAGAACCACCAAATCTGACTTTTACATTTGGTCTCAGAATTTAGGTTCC
TGCCCTGTTGGTTTTTTTTTTTTTTTTTTTTTAAACAGTTTTCAAAAGTTCTTAAAGGCAAGAGTGAATTTCTGTG
GATTTTACTGGTCCCAGCTTTTAGGTTCTTTAAGACACTAACAGGACTACATAGAGGCTTTTTCAGCATTACTGT
GTCGCTCTCCGTGCCAGATGTGGCAAGATCACCATTAGCAAATGGAAATTACATTTGAAAGCCATTAGACTTATAG
GTGATGCAAGCATCTAAGAGAGAGGTTAATCACACTATAGAGGCATAAGTGGTATCAGTTTTCATTTTTCTAATT
GTTTAAACTGTGTTTTATACCAGTGTTTGCAAGTAATTGGGTGTTAGCTTGAGATGGTTAAAGGTGGTTTGGGGA
GGGACTTCGTTGTAATGGTTTTGCTGTAAAAAATGTTTCCAACCTCCGCTGAAATGTTGCTGAAAAGCATGGTGCT
GGTAACAGTTCAACAATCCGTGGCTGCTCATTCTTGCCCTACTTTACTCTCCCACTGAAGCAGGTTAGCGTTGAAG
GTGGTATGGAAGCCTGCATGCCTGTTCAATTCTTTGTTTCTTCTCCTTCCCCCTCCCCCTACCTCCTTCCCC
TCACTCCTCCCCTCCTTCGCTCGCTCAACCTCTTTTGTTTCAAGTATGTGTAACCTGAAGCTAATTTGTACTACTGG
ATATCTGACTGGAGCCACAGATACAGAATCTGTATTGTTCTTACTGAAACACAGCATGGAATTAACATTAACTT
AAATAAAACAAACCTAAATTAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 729

MDDREDLVYQAKLAEQAERYDEMVESMKKVAGMDVELTVEERNLLSVAYKNVIGARRASWRIISSIEQKEENKGG
EDKLMIREYRQMVETELKLICCDILDVLDKHLIPAANTGESKVFYYKMGDYHRYLAEFATGNDRKEAAENSLV
AYKAASDIAMTELPPTHPIRLGLALNFSVFYYEILNSPDRACRLAKAAFDDAIAELDTLSEESYKDSTLIMQLLR
DNLTLTSDMQGDGEEQNKEALQDVEDENQ

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FIGURE 730

GGCACGAGGGGCGGCGGAGCCGACTCGTCGCGGCCGAGGCGCACGCGGTCCGCGCCGGCGTCAGTCTGGGATTGG
 CCGGCCCGCGACTTCTCCGCCCTTGCCAATCGCCGGGGACGACTTCCGTGGGTTTTTCCGGCTCTCCCGCGTC
 GCTAAGGAGCGACGGGCTGTGCGCCAGACCCGAGTTCTCGGTGCGCTCAGCGGCCGCCGACGCTAGGAGGCCGC
 GCTCCGCCCCCGCTACCATGAGGCCCGGAAAGCCTTCTGCTCCTGCTGCTCTTGCGGCTGGTGCAGCTGCTGG
 CCGTGGCGGGTGCCGAGGGCCGACGAGGATTCTTCTAACAGAGAAAAATGCCATTGAGGATGAAGAGGAGGAGG
 AGGAGGAAGATGATGATGAGGAAGAAGACGACTTGGAAGTTAAGGAAGAAAAATGGAGTCTTGGTCTAAATGATG
 CAACTTTGATAATTTTGTGGCTGACAAAGACACAGTGCTGCTGGAGTTTTATGCTCCATGGTGTGGACATTGCA
 AGCAGTTTGCTCCGGAATATGAAAAAATTGCCAACATATTAAAGGATAAAGATCCTCCCATTCCTGTTGCCAAGA
 TCGATGCAACCTCAGCGTCTGTGCTGGCCAGCAGGTTTGATGTGAGTGGCTACCCACCATCAAGATCCTTAAGA
 AGGGGCAGGCTGTAGACTACGAGGGCTCCAGAACCAGGAAGAAATGTTGCCAAGGTCAGAGAAGTCTCCAGC
 CCGACTGGACGCCTCCACCAGAAGTCACGCTTGTGTTGACCAAAGAGAACTTTGATGAAGTTGTGAATGATGCAG
 ATATCATTCTGGTGGAGTTTTATGCCCATGGTGTGGACACTGCAAGAACTTGCCCCGAGTATGAGAAGGCCG
 CCAAGGAGCTCAGCAAGCGTTCTCCTCCAATTCCCCTGGCAAAGGTGCGACGCCACCGCAGAAACAGACCTGGCCA
 AGAGGTTTGATGTCTCTGGCTATCCACCTGAAAATTTCCGCAAAGGAAGGCCCTTATGACTACAACGGCCAC
 GAGAAAAATATGGAATCGTTGATTACATGATCGAGCAGTCCGGGCCTCCCTCCAAGGAGATTCTGACCCTGAAGC
 AGGTCCAGGAGTTCTTGAAGGATGGAGACGATGTCATCATCATCGGGGTCTTAAAGGGGAGAGTGACCCAGCCT
 ACCAGCAATACCAGGATGCCGCTAACAACTGAGAGAAGATTACAAATTTACCCACACTTTCAGCACAGAAATAG
 CAAAGTTCTTGAAAGTCTCCAGGGGCAGTTGGTTGTAATGCAGCCTGAGAAATTCCAGTCCAAGTATGAGCCCC
 GGAGCCACATGATGGACGTCCAGGGCTCCACCCAGGACTCGGCCATCAAGGACTTCGTGCTGAAGTACGCCCTGC
 CCCTGGTTGGCCACCGCAAGGTGTCAAACGATGCTAAGCGCTACACCAGGCGCCCCCTGGTGGTCTGCTACTACA
 GTGTGGACTTCAGCTTTGATTACAGAGCTGCAACTCAGTTTTGGCGGAGCAAAGTCTTAGAGGTGGCCAAGGACT
 TCCCTGAGTACACCTTTGCCATTGCGGACGAAGAGGACTATGCTGGGGAGGTGAAGGACCTGGGGCTCAGCGAGA
 GTGGGGAGGATGTCAATGCCGCCATCCTGGACGAGAGTGGGAAGAAGTTCGCCATGGAGCCAGAGGAGTTTGACT
 CTGACACCTCCGCGAGTTTGTCACTGCTTTCAAAAAAGGAAAACTGAAGCCAGTCATCAATCCCAGCCAGTGC
 CCAAGAACAACAAGGGACCCGTCAAGGTGCTGGTGGGAAAGACCTTTGACTCCATTGTGATGGACCCCAAGAAGG
 ACGTCTCATCGAGTTCTACGCACCATGGTGCGGGCACTGCAAGCAGCTAGAGCCCGTGTACAACAGCCTGGCCA
 AGAAGTACAAGGGGCCAAAAGGGCCTGGTCAATCGCCAAGATGGACGCCACTGCCAACGACGTCCCCAGCGACCGCT
 ATAAGGTGGAGGGCTTCCCCACCATCTACTTCGCCCCAGTGGGGACAAAAAGAACCAGTTAAATTTGAGGGTG
 GAGACAGAGATCTGGAGCATTGAGCAAGTTTATAGAAGAACATGCCACAAAAGTGAAGCAGGACCAAGGAAGAGC
 TTTGAAGGCCTGAGGTCTGCGGAAGGTGGGAGGAGGCAGACACCTGCGTGGCCCATGGTTCGGGGCGTCCACGCC
 GAGGCCGGCAACAAACGACAGTATCTCGGATTCTTTTTTTTTTTTTTTTTTAAATTTTTTATACTTTGGTGTTCAC
 TTCATGCTCTGAATACTGAATAACCATGAATGACTGAATAGTTTAGTCCAGATTTTTACAGAGGATACATCTATT
 TTTATCATTATTGGGGTTTGAAAAATTTTTTTTTTACACCTTCTAATTTCTTTATTTCTCAAAGCAGATAATTCT
 TCTGTGTGAAAAATGTTTTCTTTTTTTAATTTAAGGTTTAAAAATTCCTTTGCCAAATCATGTTGATTTTGCTCTTT
 GCTTTTTCGTTGTCTGAGAAATTGTTGGCGTAGATTTGGCTTCTGGTATGTGTTTCTGATTGCTTCCTGTTGAGC
 ACAAAGTGAGAGCTGCCACTGAGCAGCCCTGCCAGGGGTGCTGTTTCAGGCTGGGCATCGCCAGGCGGCCTCCCT
 GCAAACCAAGGGCTGGGGGCAAAGGGGCATGATCCAGGGTCCCCAGGGTGGGCTCAGCTCCAGGGAGAGGCCAC
 CCACGTGGCAGCCCCACCTCTTGAGAGCCCCAGTGCCGGAGCAGAAAGGACCCTGGACCCAGAGGCAGATACTG
 CGGGGTGGTAGAAAAGGTAGAGTAGGCTGTGGCAATGGAATAAAACACGATTAAAAACGTTAAAAA
 AAAAA

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FIGURE 731

MRPRKAFLLLLLLGLVQLLAVAGAEGPDEDSSNRENAIEDEEEEEEEEDDDEEEDDLEVKEENGVLVLNDANFDNF
VADKDTVLLLEFYAPWCGHCKQFAPEYEKIANILKDKDPPIPVAKIDATSASVLASRFDVSGYPTIKILKKGQAVD
YEGSRTQEEIVAKVREVSQPDWTPPPEVTLVLTKENFDEVVNDADIILVEFYAPWCGHCKKLAPYEKA AKELSK
RSPPIPLAKVDATAETDLAKRFDVSGYPTLKIFRKGRPYDYNGPREKYGIVDYMIEQSGPPSKEILTLKQVQEFL
KDGDDVIIIGVFKGESDPAYQQYQDAANNLREDYKFHHTFSTEIAKFLKVSQGGQLVVMQPEKFQSKYEPRSHMMD
VQGSTQDSAIKDFVLKYALPLVGHRKVSNDKRYTRRPLVVVYYSVDFSFDYRAATQFWRSKVLEVAKDFPEYTF
AIADEEDYAGEVKDLGLSESGEDVNAAILDESGKKFAMEPEEFDSDTLREFVTAFKKGKLKPVIKSQPVPKNNKG
PVKVVVGKTFDSIVMDPKKDVLIEFYAPWCGHCKQLEPVYNSLAKKYKGQKGLVIKMDATANDVP SDRYKVEGF
PTIYFAPSGDKKNPVKFEGGDRDLEHLSKFIEEHATKLSRTKEEL

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FIGURE 732

AGGTTCTCTTACATCGACCGCCTAAGAGTCGCGCTGTAAGAAGCAACAACCTCTCCTCTTCGTCTCCGCCATCAG
 CTCGGCAGTCGCGAAGCAGCAACC**ATG**CGTGAGTGCACTCTCCATCCACGTTGGCCAGGCTGGTGTCCAGATTGGC
 AATGCCTGCTGGGAGCTCTACTGCCTGGAACACGGCATCCAGCCCGATGGCCAGATGCCAAGTGACAAGACCATT
 GGGGGAGGAGATGATTTCCTTCAACACCTTCTTCAGTGAGACGGGGGCTGGCAAGCATGTGCCCCGGGCAGTGTTT
 GTAGACTTGGAACCCACAGTCATTGATGAAGTTCGCACTGGCACCTACCGCCAGCTCTTCCACCCTGAGCAACTT
 ATCACAGGCAAAGAAGATGCTGCCAATAACTATGCCCCGAGGGCACTACACCATTGGCAAGGAGATCATTGACCTC
 GTGTTGGACCGAATTCGCAAGCTGGCCGACCAGTGACGGGTCTCCAGGGCTTCTTGGTTTTCCACAGCTTTGGT
 GGGGGAAC TGTTCTGGGTTACCTCGCTGCTCATGGAACGTCTCTCAGTTGATTATGGCAAGAAGTCCAAGCTG
 GAGTTCTCTATTTACCCGGCGCCCCAGGTTTCCACAGCTGTAGTTGAGCCCTACAACCTCCATCCTCACCACCCAC
 ACCACCCTGGGAGCACTCTGATTGTGCCTTCATGGTAGACAATGAGGCCATCTATGACATCTGTCTGAGAAACCTC
 GATATTGAGCGTCCAACCTATACTAACCTGAATAGGTTAATAGGTCAAATTGTGTCTCTCCATCACTGCTTCCCTG
 AGATTTGATGGAGCCCTGAATGTTGACCTGACAGAATTCAGACCAACCTGGTGGCCTATCCCCGCATCCACTTC
 CCTCTGGCCACATATGCCCCTGTCATCTCTGCTGAGAAAGCCTACCATGAACAGCTTTCTGTAGCAGAGATCACC
 AATGCTTGCTTTGAGCCAGCCAACCAGATGGTGAAATGTGACCCTCGCCATGGTAAATACATGGCTTGCTGCCTG
 TTGTACCGTGGTGACGTGGTTCCCAAAGATGTCAATGCTGCCATTGCCACCATCAAGACCAAGCGTACCATCCAG
 TTTGTGGATTGGTGCCCCACTGGCTTCAAGGTTGGCATCAACTACCAGCCTCCCCTGTGGTGCCTGGTGGAGAC
 CTGGCCAAGGTACAGAGAGCTGTGTGCATGCTGAGCAACACCACAGCCATTGCTGAGGCCTGGGCTCGCCTGGAC
 CACAAGTTTGACCTGATGTATGCCAAACGTGCCCTTGTTCCTGTTGACGTTGGGGAGGGGATGGAGGAAGGTGAG
 TTTTCAGAGGCCCGTGAGGACATGGCTGCCCTTGAGAAGGATTATGAGGAGGTTGGTGTGGATTCTGTTGAAGGA
 GAGGGTGAGGAAGAAGGAGAGGAATACT**TAA**AGTTAAAACGTCACAAAGGTGCTGCTTTTACAGGGAAGCTTATTC
 TGTTTTAAACATTGAAAAGTTGTGGTCTGATCAGTTAATTTGTATGTAGCAGTGATGCTCTCATATACAATTAC
 TGACCTATGCTCTAAAACATGAATGCTTTGTTACAGACCCAAGCTGTCCATTTCTGTGATGGGTTTTGAATAAAG
 TATTCCTGTCTTAAAAAAAAAAAAAA

FIGURE 733

MRECISIHVGQAGVQIGNACWELYCLEHGIQPDGQMPSDKTIGGGDDSFNTFFSETGAGKHVPRAVFVDLEPTVI
DEVRTGTYRQLFHPEQLITGKEDAANNYARGHYTIGKEIIDLVLDRIKRLADQCTGLQGFLVFHSFGGGTGSGFT
SLLMERLSVDYGKKSLEFSIYPAPQVSTAVVEPYNSILTTHTTLEHSDCAFMVDNEAIYDICRRNLDIERPTYT
NLNRLIGQIVSSITASLRFDGALNVDLTEFQTNLVPYPRIHFPLATYAPVISAEKAYHEQLSVAEITNACFEPAN
QMVKCDPRHGKYMACCLLYRGDVVPKDVNAAIATIKTKRTIQFVDWCPTGFKVGINYQPPTVVPGGDLAKVQRAV
CMLSNTTAIAEAWARLDHKFDLMYAKRAFVHWYVGEGMEEGEFSEAREDMAALEKDYEYVGVDSVEGEGEEEGEE
Y

AGGTTCTCTTACATCGACCGCCTAAGAGTCGCGCTGTAAGAAGCAACAACCTCTCCTCTTCGTCTCCGCCATCAG
 CTCGGCAGTCGCGAAGCAGCAACC**ATG**CGTGAGTGCATCTCCATCCACGTTGGCCAGGCTGGTGTCCAGATTGGC
 AATGCCTGCTGGGAGCTCTACTGCCTGGAACACGGCATCCAGCCCGATGGCCAGATGCCAAGTGACAAGACCATT
 GGGGGAGGAGATGATTCTTCAACACCTTCTTCAGTGAGACGGGGCTGGCAAGCATGTGCCCCGGGCAGTGTTT
 GTAGACTTGGAACCCACAGTCATTGATGAAGTTCGCACTGGCACCTACCGCCAGCTCTTCCACCCTGAGCAACTT
 ATCACAGGCAAAGAAGATGCTGCCAATAACTATGCCCAGGGGCACTACACCATTGGCAAGGAGATCATTGACCTC
 GTGTTGGACCGAATTCGCAAGCTGGCCGACCAGTGCACGGGTCTCCAGGGCTTCTTGTTTTCCACAGCTTTGGT
 GGGGGAAGTGGTTCTGGGTTACCTCGCTGCTCATGGAACGTCTCTCAGTTGATTATGGCAAGAAGTCCAAGCTG
 GAGTTCTCTATTTACCCGGCGCCCCAGGTTTTCCACAGCTGTAGTTGAGCCCTACAACCTCCATCCTCACCACCCAC
 ACCACCCTGGAGCACTCTGATTGTGCCTTCATGGTAGACAATGAGGCCATCTATGACATCTGTCTGAGAAACCTC
 GATATTGAGCGTCCAACCTATACTAACCTGAATAGGTTAATAGGTCAAATTGTGTCTCCATCACTGCTTCCCTG
 AGATTTGATGGAGCCCTGAATGTTGACCTGACAGAATTCCAGACCAACCTGGTGCCCTATCCCGCATCCACTTC
 CCTCTGGCCACATATGCCCCTGTCATCTCTGCTGAGAAAGCCTACCATGAACAGCTTTCTGTAGCAGAGATCACC
 AATGCTTGCTTTGAGCCAGCCAACCAGATGGTGAAATGTGACCCTCGCCATGGTAAATACATGGCTTGCTGCCTG
 TTGTACCGTGGTGACGTGGTTCCCAAAGATGTCAATGCTGCCATTGCCACCATCAAGACCAAGCGTACCATCCAG
 TTTGTGGATTGGTGCCCCACTGGCTTCAAGGTTGGCATCAACTACCAGCCTCCCACTGTGGTGCCTGGTGGAGAC
 CTGGCCAAGGTACAGAGAGCTGTGTGCATGCTGAGCAACACCACAGCCATTGCTGAGGCCTGGGCTCGCCTGGAC
 CACAAGTTTGACCTGATGTATGCCAAACGTGCCTTTGTTCACTGGTACGTTGGGGAGGGGATGGAGGAAGGTGAG
 TTTTCAGAGGCCCGTGAGGACATGGCTGCCCTTGAGAAGGATTATGAGGAGGTTGGTGTGGATTCTGTTGAAGGA
 GAGGGTGAGGAAGAAGGAGAGGAATACT**TAA**AGTTAAAACGTCACAAAGGTGCTGCTTTTACAGGGAAGCTTATTC
 TGTTTTAAACATTGAAAAGTTGTGGTCTGATCAGTTAATTTGTATGTAGCAGTGTATGCTCTCATATACAATTAC
 TGACCTATGCTCTAAAACATGAATGCTTTGTACAGACCCAAGCTGTCCATTTCTGTGATGGGTTTTGAATAAAG
 TATTCCTGTCTTAAAAAAAAAAAAAA

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FIGURE 735

MRECISIHVGQAGVQIGNACWELYCLEHGIQPDGQMPSDKTIGGGDDSFNTFFSETGAGKHVPRAVFVDLEPTVI
DEVRTGTYRQLFHPEQLITGKEDAANNYARGHYTIGKEIIDLVLDRIKRLADQCTGLQGFLVFHSFGGGTGSGFT
SLLMERLSVDYGKKSLEFSIYPAPQVSTAVVEPYN SILTHTTLEHSDCAFMVDNEAIYDICRRNLDIERPTYT
NLNRLIGQIVSSITASLRFDGALNVDLTEFQTNLVPYPRIHFPLATYAPVISA EKAYHEQLSVAEITNACFEPAN
QMVKCDPRHGKYMACCLLYRGDVVPKDVNAAIATIKTKRTIQFVDWCPTGFKVGINYQPPTVVPGGDLAKVQRAV
CMLSNTTAIAEAWARLDHKFDL MYAKRA FVHWYVGEGMEEGEFSEAREDMAALEKDYE EVGVDSVEGE GEEEEEE
Y

FIGURE 736

FIGURE 736

[illegible]

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FIGURE 737

MQQPFNYPYPQIYWVDSSASSPWAPPGTVLPCPTSVPRRPGQRRPPPPPPPPPLPPPPPPPLPPLPLPPLKKRG
NHSTGLCLLMFFMVLVALVGLGLGMFQLFHLQKELAELESTSQMHTASSLEKQIGHPSPPPEKKELRKVAHLT
GKSNSRSMPLWEDTYGIVLLSGVKYKKGGLVINETGLYFVYSKVYFRGQSCNNLPLSHKVYMRNSKYPQDLVMM
EGKMMSYCTTGQMWARSSYLGA VFNLT SADHLYVNVSELSLVNFEESQTFFGLYKL

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FIGURE 738

GTAGATAGTCAGATGTCTTTTAAAAATGTGTTTTCGGTGTGGAATATTAACCCAATCTTTGATAACTCTTCCAGA
ACCTTCGGCTCGCGTGCTTCTGAGCTGCTGTGGATGGCCTCGGCTCTCTGGACTGTCCTTCCGAGTAGGATGTCA
CTGAGATCCCTCAAATGGAGCCTCCTGCTGCTGTCACTCCTGAGTTTCTTTGTGATGTGGTACCTCAGCCTTCCC
CACTACAATGTGATAGAACGCGTGAACCTGGATGTACTTCTATGAGTATGAGCCGATTTACAGACAAGACTTTTAC
TTCACACTTCGAGAGCATTCAAACCTGCTCTCATCAAAATCCATTTCTGGTCATTCTGGTGACCTCCCACCCTTCA
GATGTGAAAGCCAGGCAGGCCATTAGAGTTACTTGGGGTGAAAAAAAGTCTTGGTGGGGATATGAGGTTCTTACA
TTTTTCTTATTAGGCCAAGAGGCTGAAAAGGAAGACAAAATGTTGGCATTGTCCTTAGAGGATGAACACCTTCTT
TATGGTGACATAATCCGACAAGATTTTTTAGACACATATAATAACCTGACCTTGAAAACCATTTATGGCATTCAAG
TGGGTAACCTGAGTTTGGCCCAATGCCAAGTACGTAATGAAGACAGACACTGATGTTTTCATCAATACTGGCAAT
TTAGTGAAGTATCTTTAAACCTAAACCACTCAGAGAAGTTTTTACAGGTTATCCTCTAATTGATAATTATTCC
TATAGAGGATTTTACCAAAAAACCCATATTTCTTACCAGGAGTATCCTTTCAAGGTGTTCCCTCCATACTGCAGT
GGGTTGGGTTATATAATGTCCAGAGATTTGGTGCCAAGGATCTATGAAATGATGGGTCACGTAAAACCCATCAAG
TTTGAAGATGTTTATGTCCGGGATCTGTTTGAATTTATTTAAAGTGAACATTCATATTCCAGAAGACACAAATCTT
TTCTTTCTATATAGAATCCATTTGGATGTCTGTCAACTGAGACGTGTGATTGCAGCCCATGGCTTTTCTTCCAAG
GAGATCATCACTTTTTTGGCAGGTCATGCTAAGGAACACCACATGCCATTATTAACCTCACATTCTACAAAAGCC
TAGAAGGACAGGATACTTTTGTGGAAAGTGTTAAATAAAGTAGGTACTGTGGAAAATTCATGGGGAGGTCAGTGTG
CTGGCTTACACTGAACTGAACTCATGAAAAACCCAGACTGGAGACTGGAGGGTTACACTTGTGATTTATTAGTC
AGGCCCTTCAAAGATGATATGTGGAGGAATTAATATAAAGGAATTGGAGGTTTTTGCTAAAGAAATTAATAGGA
CCAAACAATTTGGACATGTCATTCTGTAGACTAGAATTTCTTAAAAGGGTGTTACTGAATTATAAGCTCACTAGG
CTGTAAAAACAAAACAATGTAGAGTTTTATTTATTGAACAATGTAGTCACTTGAAGTTTTGTGTATATCTTATG
TGGATTACCAATTTAAAAATATATGTAGTTCTGTGTCAAAAACTTCTTCACTGAAGTTATACTGAACAAAATTT
TACCTGTTTTTGGTCATTTATAAAGTACTTCAAGATGTTGCAGTATTTACAGTTATTATTATTTAAAATTACTT
CAACTTTGTGTTTTTAAATGTTTTGACGATTTCAATACAAGATAAAAAGGATAGTGAATCATTCTTTACATGCAA
ACATTTTCCAGTTACTTAACTGATCAGTTTATTATTGATACATCACTCCATTAATGTAAAGTCATAGGTCATTAT
TGCACATCAGTAATCTCTTGGACTTTGTTAAATATTTTACTGTGGTAATATAGAGAAGAATTAAGCAAAAAAAA
AAAAAAAAAAAAAAAAAAAAA

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FIGURE 739

MASALWTVLPSRMSLRSLKWSLLLLSLLSFFVMWYLSLPHYNVIERVNWMYFYEYEPiYRQDFHFTLREHSNCSH
QNPFLVILVTSHPSDVKARQAIRVTWGEKKSWWGYEVLTFLLGQEA EKEDKMLALSLEDEHLLYGDIIRQDFLD
TYNNLTLKTIMAFRWVTEFCPNAKYVMKTD TDVFINTGNLVKYLNLNHSEKFFTGYPLIDNYSYRGFYQKTHIS
YQEYPFKVFPFYCSGLGYIMSRDLVPRIYEMMGHVKPIKFEDVYVGICLNLLKVNIHIPEDTNLFFLYRIHLDVC
QLRRVIAAHGFSSKEIITFWQVMLRNTTCHY

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FIGURE 740A

ATTTCCCGCCAGCAGGAGCCGCGCGGTAGATGCGGTGCTTTTAGGAGCTCCGTCCGACAGAACGGTTGGGCCTTG
 CCGGCTGTGCGGTATGTCGCGACAGAGACCCTGTACAGCTTCTTCCCCAAGTCTCCGGCGCTGAGTGATGCCAAC
 AAGGCCTCGGCCAGGGCCTCACGCGAAGGCGGCCGTGCCGCCGTGCCCCCGGGGCTCTCCTTCCCAGGCGGG
 GATGCGGCCTGGAGCGAGGCTGGGCCTGGGCCAGGCCCTTGGCGCGATCCGCGTCACCGCCCAAGGCGAAGAAC
 CTCAACGGAGGGCTGCGGAGATCGGTAGCGCCTGTGCCCCACCAGTTGTGACTTCTCACCAGGAGATTTGGTT
 TGGGCCAAGATGGAGGGTTACCCCTGGTGGCCTTGTCTGGTTTACAACCACCCCTTTGATGGAACATTCATCCGC
 GAGAAAGGGAAATCAGTCCGTGTTTATGTACAGTTTTTTGATGACAGCCCAACAAGGGGCTGGGTTAGCAAAAGG
 CTTTTAAAGCCATATACAGGTTCAAATCAAAGGAAGCCAGAAGGGAGGTCATTTTTACAGTGCAAAGCCTGAA
 ATACTGAGAGCAATGCAACGTGCAGATGAAGCCTTAAATAAAGACAAGATTAAGAGGCTTGAATTGGCAGTTTGT
 GATGAGCCCTCAGAGCCAGAAGAGGAAGAAGAGATGGAGGTAGGCACAACCTTACGTAACAGATAAGAGTGAAGAA
 GATAATGAAATTGAGAGTGAAGAGGAAGTACAGCCTAAGACACAAGGATCTAGGCGAAGTAGCCGCCAAATAAAA
 AAACGAAGGGTCATATCAGATTCTGAGAGTGACATTGGTGGCTCTGATGTGGAATTTAAGCCAGACACTAAGGAG
 GAAGGAAGCAGTGATGAAATAAGCAGTGGAGTGGGGGATAGTGAGAGTGAAGGCCTGAACAGCCCTGTCAAAGTT
 GCTCGAAAGCGGAAGAGAATGGTGACTGGAATGGCTCTCTTAAAAGGAAAAGCTCTAGGAAGGAAACGCCCTCA
 GCCACCAAACAAGCAACTAGCATTTCATCAGAAACCAAGAATACTTTGAGAGCTTTCTCTGCCCTCAAATTTCT
 GAATCCCAAGCCACGTTAGTGGAGGTGGTGATGACAGTAGTCGCCCTACTGTTTGGTATCATGAACTTTAGAA
 TGGCTTAAGGAGGAAAAGAGAAGAGATGAGCACAGGAGGAGGCCTGATCACCCCGATTTTGATGCATCTACACTC
 TATGTGCTGAGGATTTCTCAATTCTTGTACTCCTGGGATGAGGAAGTGGTGGCAGATTAAGTCTCAGAACTTT
 GATCTTGTCTATCTGTTACAAGGTGGGGAATTTTATGAGCTGTACCACATGGATGCTCTTATTGGAGTCAGTGAA
 CTGGGGCTGGTATTCATGAAAGGCAACTGGGCCCATCTGGCTTTCCTGAAATTGCATTTGGCCGTTATTCAGAT
 TCCCTGGTGCAGAAGGGCTATAAAGTAGCACGAGTGAACAGACTGAGACTCCAGAAATGATGGAGGCACGATGT
 AGAAAGATGGCACATATATCCAAGTATGATAGAGTGGTGAGGAGGAGATCTGTAGGATCATTACCAAGGGTACA
 CAGACTTACAGTGTGCTGGAAGGTGATCCCTCTGAGAACTACAGTAAGTATCTTCTTAGCCTCAAAGAAAAAGAG
 GAAGATTCTTCTGGCCATCTCGTGCATATGGTGTGTGCTTTGTTGATACTTCACTGGGAAAGTTTTTCATAGGT
 CAGTTTTCAGATGATCGCCATTGTTTCGAGATTTAGGACTCTAGTGGCACACTATCCCCAGTACAAGTTTTATTT
 GAAAAAGGAAATCTCTCAAAGGAACTAAAACAATTCTAAAGAGTTTCATTGTCCTGTTCTCTTCAGGAAGGTCTG
 ATACCCGGCTCCCAGTTTTTGGGATGCATCCAAAACCTTTGAGAACTCTCCTTGAGGAAGAATATTTTAGGGAAAAG
 CTAAGTGATGGCATTGGGGTGATGTTACCCAGGTGCTTAAAGGTATGACTTCAGAGTCTGATTCCATTGGGTTG
 ACACCAGGAGAGAAAAGTGAATTGGCCCTCTCTGCTCTAGGTGGTTGTGTCTTCTACCTCAAAAAATGCCTTATT
 GATCAGGAGCTTTTATCAATGGCTAATTTTGAAGAATATATTCCCTTGGAATCTGACACAGTCAGCACTACAAGA
 TCTGGTGCTATCTTCACCAAAGCCTATCAACGAATGGTGCTAGATGCAGTGACATTAACAACCTTGAGATTTTT
 CTGAATGGAACAAATGGTTCTACTGAAGGAACCCCTACTAGAGAGGGTTGATACTTGCCATACTCCTTTTGGTAAG
 CGGCTCCTAAAGCAATGGCTTTGTGCCCACTCTGTAAACCATATGCTATTAATGATCGTCTAGATGCCATAGAA
 GACCTCATGGTTGTGCCTGACAAAATCTCCGAAGTTGTAGAGCTTCTAAAGAAGCTTCCAGATCTTGAGAGGCTA
 CTCAGTAAATTCATAATGTTGGGTCTCCCTGAAGAGTCAGAACCACCCAGACAGAGGGCTATAATGTATGAA
 GAACTACATACAGCAAGAAGAAGATTATTGATTTTCTTCTGCTCTGGAAGGATTCAAAGTAATGTGTAAAATT
 ATAGGGATCATGGAAGAAGTTGCTGATGGTTTTAAGTCTAAAATCCTTAAGCAGGTCATCTCTCTGCAGACAAA
 AATCCTGAAGGTCGTTTTCTGATTTGACTGTAGAATTGAACCGATGGGATACAGCCTTTGACCATGAAAAGGCT
 CGAAAGACTGGACTTATTACTCCCAAAGCAGGCTTTGACTCTGATTATGACCAAGCTCTTGCTGACATAAGAGAA
 AATGAACAGAGCCTCCTGGAATACCTAGAGAAACAGCGCAACAGAATTGGCTGTAGGACCATAGTCTATTGGGGG
 ATTGGTAGGAACCGTTACCAGCTGGAATTCCTGAGAATTTCAACACTCGCAATTTGCCAGAAGAATACGAGTTG
 AAATCTACCAAGAAGGGCTGTAAACGATACTGGACCAAACTATTGAAAAGAAGTTGGCTAATCTCATAAATGCT
 GAAGAACGGAGGGATGTATCATTGAAGGACTGCATGCGGCGACTGTTCTATACTTTGATAAAAATTACAAGGAC
 TGGCAGTCTGCTGTAGAGTGTATCGCAGTGTGGATGTTTTACTGTGCTGGCTAACTATAGTCAGGGGGGTGAT
 GGTCTATGTGTGCGCCAGTAATTCTGTTGCCGGAAGATACCCCCCTTCTTAGAGCTTAAAGGATCACGCCAT
 CCTTGCAATTACGAAGACTTTTTTTGGAGATGATTTTATTCTAATGACATTCTAATAGGCTGTGAGGAAGAGGAG
 CAGGAAAATGGCAAAGCCTATTGTGTGCTTGTACTGGACCAAAATATGGGGGGCAAGTCTACGCTTATGAGACAG
 GCTGGCTTATTAGCTGTAATGGCCCAGATGGGTTGTTACGTCCCTGCTGAAGTGTGCAGGCTCACACCAATTGAT

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FIGURE 740B

AGAGTGTTTACTAGACTTGGTGCCTCAGACAGAATAATGTCAGGTGAAAGTACATTTTTTGTGGAATTAAGTGAA
ACTGCCAGCATACTCATGCATGCAACAGCACATTCTCTGGTGCTTGTGGATGAATTAGGAAGAGGTACTGCAACA
TTTGATGGGACGGCAATAGCAAATGCAGTTGTTAAAGAACTTGCTGAGACTATAAAATGTCGTACATTATTTTCA
ACTCACTACCATTCATTAGTAGAAGATTATTCTCAAATGTTGCTGTGCGCCTAGGACATATGGCATGCATGGTA
GAAAATGAATGTGAAGACCCCAGCCAGGAGACTATTACGTTCCCTCTATAAATTCATTAAGGGAGCTTGTCTTAA
AGCTATGGCTTTAATGCAGCAAGGCTTGCTAATCTCCAGAGGAAGTTATTCAAAGGGACATAGAAAAGCAAGA
GAATTTGAGAAGATGAATCAGTCACTACGATTATTTGCGGAAGTTTGCCTGGCTAGTGAAAGGTCAACTGTAGAT
GCTGAAGCTGTCCATAAATTGCTGACTTTGATTAAAGGAATTATAGACTGACTACATTGGAAGCTTTGAGTTGACT
TCTGACCAAAGGTGGTAAATTCAGACAACATTATGATCTAATAAACTTTATTTTTTAAAAATGA

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FIGURE 741

MSRQSTLYSFFPKSPALSDANKASARASREGGRAAAAPGASPSGGDAWSEAGPGPRPLARSASPPKAKNLNGG
 LRRSVAPAAPTSCDFSPGDLVWAKMEGYPPWPCLVYNHPFDGTFIREKGKSVRVHVQFFDDSPTRGWVSKRLLKP
 YTGSKSKEAQKGGHFYSAPKPEILRAMQRADEALNKDKIKRLELAVCDEPSEPEEEEEEMEVTYVTDKSEEDNEI
 ESEEEVQPKTQGSRRSSRQIKKRRVISDSSEIDIGGSDVEFKPDTKEEGSSDEISSGVGDSESEGLNSPVKVARKR
 KRMVTGNGSLKRKSSRKETPSATKQATSISSETKNTLRAFSAPQNSESQAHVSGGGDDSSRPTVWYHETLEWLKE
 EKRRDEHRRRPDHPDFDASTLYVPEDFLNSCTPGMRKWWQIKSQNFDLVICYKVGKIFYELYHMDALIGVSELGLV
 FMKGNWAHSGFPEIAFGRYSDSLVQKGYKVARVEQTETPEMMEARCRKMAHISKYDRVVRREICRIITKGTQYTS
 VLEGDPSENYSKYLLSLKEKEEDSSGHTRAYGVCFVDTSLGKFFIGQFSDDRHCSEFRFTLVAHYPPVQVLFKGN
 LSKETKTIKSSSLCSLQEGIPGSQFWDASKTLRLLLEEEYFREKLSDGIGVMLPQVLKGMTSESDSIGLTPGE
 KSELALSALGGCVFYLKKCLIDQELLSMANFEEYIPLSDTVSTTRSGAIFTKAYQRMVLDVATLNNLEIFLNGT
 NGSTEGTLLERVDTCHTFPGKRLKQWLCAPLCNHYAINDRLDAIEDLMVVPDKISEVVELLKKLPDLERLLSKI
 HNVGSPKSKQNHPDSRAIMYEETYSKKKIIDFLSALEGFKVMCKIIGIMEEVADGFKSKILKQVISLQTKNPEG
 RFPDLTVELNRWDATFDHEKARKTGLITPKAGFDSYDQALADIRENEQSLLEYLEKQRNRIGCRTIVYWGIGRN
 RYQLEIPENFTTRNLPEEYELKSTKKGCKRYWTKTIEKKLANLINAEERRDVSLKDCMRRLFYNFDKNYKDWQSA
 VECIAVLVDVLLCLANYSRGGDGPMCRPVILLPEDTPPFLELKGSRHPCITKTFFGDDFIPNDILIGCEEEEQENG
 KAYCVLVTGPNMGGKSTLMRQAGLLAVMAQMGCVPAEVCRLTPIDRVFTRLGASDRIMSGESTFFVELSETASI
 LMHATAHSLVLVDELGRGTATFDGTAIANAVVKELAETIKCRTLFSTHYHSLVEDYSQNVAVRLGHMACMVENEC
 EDPSQETITFLYKFIKGACPKSYGFNAARLANLP EEVIQKGHRKAREFEKMNQSLRLRFREVCLASERSTVDAEAV
 HKLLTLIKEL

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FIGURE 742

GACGCCGACG**ATGA**AACACCCGTGGAAGGTTCTTCTGGGACTGCTGGGTGCTGCTGCGCTTGTCACCATCATCAC
CGTGCCCGTGGTTCTGCTGAACAAAGGCACAGATGATGCTACAGCTGACAGTCGCAAACTTACACTCTAACTGA
TTACTTAAAAAATACTTATAGACTGAAGTTATACTCCTTAAGATGGATTTTCTAGATCATGAATATCTCTACAAACA
AGAAAATAATATCTTGGTATTCAATGCTGAATATGGAAACAGCTCAGTTTTCTTGGAGAACAGTACATTTGATGA
GTTTGGACATTCTATCAATGATTATTCAATATCTCCTGATGGGCAGTTTTATTCTCTTAGAATACAACACTACGTGAA
GCAATGGAGGCATTCTACACAGCTTCATATGACATTTATGATTTAAATAAAAAGGCAGCTGATTACAGAAGAGAG
GATTCCAAACAACACACAGTGGGTCACATGGTCACCAGTGGGTCATAAATTGGCATATGTTTGGAAACAATGACAT
TTATGTTAAATTTGAACCAAAATTTACCAAGTTACAGAATCATATGGACGGGGAAGAAGATATAATATATAATGG
AATAACTGACTGGGTTTATGAAGAGGAAGTCTTCAGTGCCTACTCTGCTCTGTGGTGGTCTCCAAACGGCACTTT
TTTAGCATATGCCCAATTTAACGACACAGAAGTCCCACTTATTGAATACTCCTTCTACTCTGATGAGTCACTGCA
GTACCCAAAGACTGTACGGGTTCCATATCCAAAGGCAGGAGCTGTGAATCCAAGTGTAAAGTTCTTTGTTGTAAA
TACAGACTCTCTCAGCTCAGTCACCAATGCAACTTCCATACAAATCACTGCTCCTGCTTCTATGTTGATAGGGGA
TCACTACTTGTGTGATGTGACATGGGCAACACAAGAAAGAAATTTCTTTGCAGTGGCTCAGGAGGATTACAGAACTA
TTCGGTCATGGATATTTGTGACTATGATGAATCCAGTGGAAAGATGGAACTGCTTAGTGGCACGGCAACACATTGA
AATGAGTACTACTGGCTGGGTTGGAAGATTTAGGCCTTCAGAACCTCATTTTACCCTTGATGGTAATAGCTTCTA
CAAGATCATCAGCAATGAAGAAGGTTACAGACACATTTGCTATTTCCAAATAGATAAAAAAGACTGCACATTTAT
TACAAAAGGCACCTGGGAAGTCATCGGGATAGAAGCTCTAACCACTGATTATCTATACTACATTAGTAATGAATA
TAAAGGAATGCCAGGAGGAAGGAATCTTTATAAAATCCAAGTCTAGTACTATACAAAAGTGACATGCCTCAGTTG
TGAGCTGAATCCGGAAGGTGTCAGTACTATTCTGTGTCATTAGTAAAGAGGCGAAGTATTATCAGCTGAGATG
TTCCGGTCTGCTGCTGCCCTCTATACTCTACACAGCAGCGTGAATGATAAAGGGCTGAGAGTCTTGGAAAGACAA
TTCAGCTTTGGATAAAATGCTGCAGAATGTCCAGATGCCCTCCAAAAAAGTGGACTTCATTATTTTGAATGAAAC
AAAAATTTGGTATCAGATGATCTTGCCTCCTCATTTTGATAAATCCAAGAAATATCCTCTACTATTAGATGTGTA
TGCAGGCCCATGTAGTCAAAAAGCAGACACTGTCTTCAGACTGAACTGGGCCACTTACCTTGCAAGCACAGAAAA
CATTATAGTAGCTAGCTTTGATGGCAGAGGAAGTGGTTACCAAGGAGATAAGATCATGCATGCAATCAACAGAAG
ACTGGGAACATTTGAAGTTGAAGATCAAATGAAGCAGCCAGACAATTTTCAAAAATGGGATTTGTGGACAACAA
ACGAATTGCAATTTGGGGCTGGTCATATGGAGGGTACGTAACCTCAATGGTCTGGGATCAGGAAGTGGCGTGTT
CAAGTGTGGAATAGCCGTGGCGCCTGTATCCCGGTGGGAGTACTATGACTCAGTGTACACAGAACGTTACATGGG
TCTCCCAACTCCAGAAGACAACCTTGACCATTACAGAAATTCACAGTCATGAGCAGAGCTGAAAATTTTAAACA
AGTTGAGTACCTCCTTATTATGGAACAGCAGATGATAACGTTCACTTTTACGAGTCAGCTCAGATCTCCAAAGC
CCTGGTCGATGTTGGAGTGGATTTCCAGGCAATGTGGTATACTGATGAAGACCATGGAATAGCTAGCAGCACAGC
ACACCAACATATATATACCCACATGAGCCACTTCATAAAACAATGTTTCTCTTTACCT**TAG**CACCTCAAAATACC
ATGCCATTTAAAGCTTATTAATAAATCATTTTTGTTTTTATTATCTCAAACTGCACTGTCAAGATGATGATGATC
TTTAAATACACACTCAAATCAAGAACTTAAGGTTACCTTTGTTCCCAATTTTATACCTATCATCTTAAGTAG
GGACTTCTGTCTTCAACAGATTATTACCTTACAGAAGTTGAATTATCCGGTCCGGGTTTTATTGTTTAAATC
ATTTCTGCATCAGCTGCTGAAACAACAATAGGAATTGTTTTATGGAGGCTTGCATAGATTCCCTGAGCAGGA
TTTAAATCTTTTCTAACTGGACTGGTTCAAATGTTGTTCTCTTTTAAAGGGATGGCAAGATGTGGGCAGTGA
TGCTACTAGGGCAGGGACAGGATAAGAGGGATTAGGGAGAGAAGATAGCAGGGCATGGCTGGGAACCAAGTCCA
AGCATACCAACACGACCAGGCTACTGTGAGCTCCCTCGGAGAAAAGTGTGAGTCTGCGTGTGAACAGCTCTTC
TCCTTTAGAGCACAAATGGATCTCGAGGGATCTCCATACCTACCAGTTCTGCGCCTCGAGGCCGCGACTCTAGA

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FIGURE 743

MKTPWKVLLGLLGAAALVTIITVPVLLNKGTDATADSRKTYTLTDYLNKTYRLKLYSLRWISDHEYLYKQENN
ILVFNAEYGNSSVFLENSTFDEFGHSINDYSISPDGQFILLEYNVVKQWRHSYTASYDIYDLNKRQLITEERIPN
NTQWVTWSPVGHKLAYVWNNDIYVKIEPNLPSYRITWTGKEDIYNGITDWVYEEVEFSAYSALWWSPNGTFLAY
AQFNDTEVPLIEYSFYSDSLQYPKTVRVPYPKAGAVNPTVKFFVNTDSLSSVTNATSIQITAPASMLIGDHYL
CDVTWATQERISLQWLRRIQNYSVMDICDYDESSGRWNCLVARQHIEMSTTGWVGRFRPSEPHTLDGNSFYKII
SNEEGYRHICYFQIDKKDCTFITKGTWEVIGIEALTSDYLYYISNEYKGMPPGGRNLYKIQLSDYTKVTCLSCELN
PERCQYYSVSFSKEAKYYQLRCSGPGPLPLYTLHSSVNDKGLRVLEDNSALDKMLQNVQMPSKKLDFIILNETKFW
YQMILPPHFDKSKKYPLLLDVYAGPCSQKADTVFRLNWATYLASTENIIVASFDRGSGYQGDIMHAINRRLGT
FEVEDQIEAARQFSKMGFVDNKRIAIWGWSYGGYVTSMLVLSGSGVFKCGIAVAPVSRWEYYSVYTERYMGLPT
PEDNLDHYRNSTVMSRAENFKQVEYLLIHGTADDNVHFQQAQISKALVDVGVDQAMWYTDEDHGIASSTAHQH
IYTHMSHFQKCFSLP

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FIGURE 744

CCGGTCGGATGCCGGACCGGGGGCACCGCTGAGGCGGTGGGTCCCCGACCTGCGAGACAGGTTTGAAGCCCCCG
CTGCGCCCAGTCCGTGCGGACCGCGAGGCCGCGGGCGGGTGGAGGCGCGTCTCCGGCACG**ATGA**AGGATTTGGGG
GCAGAGCACTTGGCAGGTCATGAAGGGGTCCAACCTTCTCGGGTTGTTGAACGTCTACCTGGAACAAGAAGAGAGA
TTCCAACCTCGAGAAAAAGGGCTGAGTTTGATTGAGGCTACCCCGGAGAATGATAACACTTTGTGTCCAGGATTG
AGAAATGCCAAAGTTGAAGATTTAAGGAGTTTAGCCAACCTTTTTTGGATCTTGCACTGAACTTTTGTCTGGCT
GTCAATATTTTGGACAGGTTCTTGGCTCTTATGAAGGTGAAACCTAAACATTTGTCTTGCACTTGAGTCTGTTCT
TTTTTGCTGGCTGCTAGAAATAGTTGAAGAAGACTGCAATATTCATCCACTCATGATGTGATCCGGATTAGTCAG
TGTAATGTACTGCTTCTGACATAAAACGGATGGAAAAAATAATTTAGAAAAATTGCACTATGAATTGGAAGCT
ACTACTGCCTTAACTTTTTGCACTTATACCATACTATTATACTTTGTCATACTTCAGAAAGGAAAGAAATACTG
AGCCTTGATAAACTAGAAGCTCAGCTGAAAGCTTGCAACTGCCGACTCATCTTTCAAAGCAAAACCATCTGTA
TTAGCCTTGTGCCTTCTCAATTTGGAAGTGGAACCTTTGAAATCTGTTGAATTACTGGAATTTCTCTTGCTAGTT
AAAAACATTCCAAGATTAATGACACTGAGTTCTTCTACTGGAGAGAGTTGGTTTCTAAATGCCTAGCCGAGTAT
TCTTCTCCTGAATGTTGCAAACAGATCTTAAGAAGTTGGTTTGGATCGTTTCAAGGCGCACAGCCAGAACCTC
CACAACAGCTACTATAGTGTTCCTGAGCTGCCAACGATACCTGAGGGGGGTGTTTTGATGAAAGTGAAAGTGAG
GACTCTTGGAAGATATGAGTTGTGGAGAGGAGAGTCTCAGCAGCTCTCCTCCCAGTGATCAAGAGTGCACCTTC
TTTTTCAACTTCAAAGTGGCACAAACACTGTGCTTTCCATCT**TAG**AAATCTGATTGTTCTGTCAGAATTTATATT
TACAGGGTTTCAAAGCAATAAATGGGGGAATAGGTAGTTTCCTGGTTTAGCCCCCATCTAGTCAGGAATTAATAT
ACTGGAATACCTACCTTCTATTTGTTATTTCAGATCAGATCTGGCCTATTTTCATATTTATCCTAAGCCATCAAA
GGGGTAGTGCTCTTAAACCATTAAACAGTACCTTAGACATTGGCCTTTATTTTCTCGTAGATCTTTAGCTACT
TTGGGGAGGAGGGAAGGTGCTGATACCTTCAATTTGTTACTTTTCAAGATTTTAAAAATAACTAGTGTAGCTTA
TCTTAAACATTTTATAAAACCTTCAGATGTCTTTAAGCAGATTGGAAGTATGCAAGTGCTTCCTTAGCAGGGACA
GTGGATAATCCTTAATGGTTTATCATAGATTTACCCCTCCCCCTTCTCAGAAGAGTGAGTATGCTCTTAAATGT
CAAACACATTTTGTGTGTTTTGTTTTTAAATGATCAGTGTCTATTTGATGTGATGCAGATCTTATAAATTTGGG
AATTATAATATTGACATTTCTGTGATTTTTATATATGTAATGTCTTAATTGAGATTTGTGTTAAGGCAGAAATAA
TTAGGCTAGGGCTCTTAGTTTTTATTTCCTATTGCCCAAGTATTGTCAAACCTATGGTATTATTTAATGTTACTT
TAAAAATCCATAATCTGCTAGTTTTGCATGTACTTATATGAAAACAGTGCAGTAAGTTGAAAACCTCAGTATCTAT
GGAAATTGATAAATGTTGATCTGGTGTAGTATATTTATCCGCATTTTCTTATATTAATAAATGTTCTGCATGATT
ACATTTTATTGCTTTGT

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FIGURE 745

MKDLGAEHLAGHEGVQLLGLLNIVYLEQEERFQPREKGLSLIEATPENDNTLCPGLRNAKVEDLRSLANFFGSCTE
TFVLAVNILDRLALMKVKPKHLSCIGVCSFLLAARIVEEDCNIPSTHDVIRISQCKCTASDIKMEKIISEKLH
YELEATTALNFLHLYHTIILCHTSEKELSLDKLEAQLKACNCRLIFSKAKPSVLALCLLNLEVETLKSVELLE
ILLLVKKHSHKINDTEFFYWRELVSKCLAEYSSPECCKPDLKKLVWIVSRRTAQNHLNSYYSVPELPTIPEGGCFD
ESESEDSCEDMSCGEESLSSSPPSDQECTFFFNFKVAQTLCFPS

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FIGURE 746

ATGGCCTGGATGCTGTTGCTCATCTTGATCATGGTCCATCCAGGATCCTGTGCTCTCTGGGTGTCCCAGCCCCCT
GAGATTCGTACCCTGGAAGGATCCTCTGCCTTCCTGCCCTGCTCCTTCAATGCCAGCCAAGGGAGACTGGCCATT
GGCTCCGTCACGTGGTTCCGAGATGAGGTGGTTCCAGGGAAGGAGGTGAGGAATGGAACCCCAGAGTTCAGGGGC
CGCCTGGCCCCACTTGCTTCTTCCCGTTTCTCCATGACCACCAGGCTGAGCTGCACATCCGGGACGTGCGAGGC
CATGACGCCAGCATCTACGTGTGCAGAGTGGAGGTGCTGGGCCTTGGTGTCGGGACAGGGAATGGGACTCGGCTG
GTGGTGGAGAAAGAACATCCTCAGCTAGGGGCTGGTACAGTCCTCCTCCTTCGGGCTGGATTCTATGCTGTCAGC
TTTCTCTCTGTGGCCGTGGGCAGCACCGTCTATTACCAGGGCAAATGCCACTGTCACATGGGAACACACTGCCAC
TCCTCAGATGGGCCCCGAGGRGTGATTCCAGAGCCCAGATGTCCC**TAG**

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FIGURE 747

MAWMLLLILIMVHPGSCALWVSQPPEIRTLEGSSAFLPCSFNASQGRLAIGSVTWFRDEVVPGKEVRNGTPEFRG
RLAPLASSRFLHDHQAEHIRDVRGHDASIYVCRVEVLGLGVGTGNGTRLVVEKEHPQLGAGTVLLLRAGFYAVS
FLSVAVGSTVYYQGKCHCHMGTHCHSSDGPRGVIPEPRCP

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FIGURE 748

GGGGAGAATCTGGTGGATGCTGGACCTTGCTGCTGCTGCTACTGCTGTTTCCAGGGGCTGCAGAGCATGGACTGT
TAAATCTTGCACCTTCTTCTGAGTGAGCTGAATTCCTGCCGCCAGGATGGGGAAACAGAACAGCAAGCTGCGCCCCG
GAGGTCATGCAGGACTTGCTGGAAAGCACAGACTTTACAGAGCATGAGATCCAGGAATGGTATAAAGGCTTCTTG
AGAGACTGCCCCAGTGGACATTTGTCAATGGAAGAGTTTAAAGAAAATATATGGGAACTTTTTCCCTTATGGGGAT
GCTTCCAAATTTGCAGAGCATGTCTTCCGCACCTTCGATGCAAATGGAGATGGGACAATAGACTTTAGAGAATTC
ATCATCGCCTTGAGTGTAACCTTCGAGGGGGAAGCTGGAGCAGAAGCTGAAATGGGCCTTCAGCATGTACGACCTG
GACGGAAATGGCTATATCAGCAAGGCAGAGATGCTAGTGATCGTGCAGGCAATCTATAAGATGGTTTCCCTCTGTA
ATGAAAATGCCTGAAGATGAGTCAACCCACAGAGAAAAGAACAGAAAAGATCTTCCGCCAGATGGACACCAATAGA
GACGGAAAACCTCCCTGGAAGAGTTTCATCCGAGGAGCCAAAAGCGACCCGTCATTGTGCGCCTCCTGCAGTGC
GACCCGAGCAGTGCCGGCCAGTTCTGAGCCCTGCGCCACCAATCGAATTGTAGAGCTGCTTGTGTTCCCTTTTG
ATTCTTCTTTTTAACAATTTTTTTTTTTTTTTTGCCAAACAATATCAATGGTGTATGCCGTCCCCTGTGCGGTCTGA
TGCGCCTTCCCTCCGTGACGCCTTCAGCCTCTTTTGTCTGGATGCTTCGTGGGAATGCCAGAGCCCCAGTGTGC
TTGTGGAGAGCATGGACAGACTTCGTGGTGTTCATTGTTTGATGATTTTTAATCGTTACTATTATTTCTTTTTAT
TCTAATGTCTCTGTTCTAAAACGTAAGACTCGGGGGTTGGGGCAAAGAAGGGAAACCCATCCAGTCTGTGATT
CTATTGCAAGCTTCAAGGGGCTTTTGTGTTGAAAGACAAAACCTCCCCACCTGGGTCTGTTGTACACGTGCCGTAG
GGGTGATGGATGGCACCGGATGCTGGATTCCCCAAGAACAAGTTACCCTCTGGGGTGAGGCTATTCCAGCGAGCT
GGGACATTTCCCACATGGGGGCCACTCCCCCTCTCTTCCCCAGCAGGCTGTAGTTTCTAAGCTGTGAACATTTCAA
GATAAATTAACAGAGGAGAGGAAAAGATGGCTCAGCTATTTTTTACAGGTTTACACTAGTTGAGCTAATATGC
GTGTCTTTGGAAATTAACACAAATGGTAACATATTCAAAACCAGACCCATCTTGTTGCCTATTGTGATAAAAT
AAAAAGACGGCTGTATATAACATATTGGGTAATGCAGACCAAATTAAGTGTGTTTGCCTTGTTTAAATGAAATGCA
TGTTTAGTGAGCACTAATAACAATCTTATTCCAGAAGACTGTTTTTAGTAGCTTATTGTGAAGTAAGACAACATA
ATGAATGTCTGTCTTGTGTTGGAAGTCATATCTGTCTTTGCACAAATGTACCAATCGACAAGTATATTTATATAT
TCCATAAAAATACAAAGTAACCCTGACTAGGGCCCACTTTAATTTTGAATGCATTTCCAGAGTGGCCATGCCTA
GAGGGCAGATGCAGAGCAGGTGGTAGTGGGACAGGACAATTGGAGCACAGGAATGTTAACATGTATGACAGGGGA
CCAGTAGGGTGGTTTCCCTCTCAGGCCCAGCAGCCCATTGACAGCATTAGACTGGCGGCATGGTGTCTTTCTGAG
CAGATCAATACTCTGCAGACTCGAAAAACATCACATACATTCTTGGAACCTCCAGTGGTTTAAATCTATGTGCA
TGGTTAGGGAGCCAGGCCTGGAATATTTCAGTTTCCCTGCCCCCTGTTAAAGAATCAGAGGTTGGGCAGTCATCAA
TTCATCATAAAGACATGGGCAAGTGTGTCTGTGGTTTCCAAGGCCCCCTATGGAGAATCCAAAAGTATTTTCCA
TTGCCGTGCTCTTTGAATGCAGACTTCTATTTCCAGAAGTGACAGCACAAGTCTGAGTTGCTGTTTGGTCTGGTG
ACCTCAGACACACTAATTTGAATTGAAAGCTAAGAGTAAAAATTTGCTGGTTACAGGCGAGTCATACTCTTGCAA
GTAGTTAGCAAAGGGAGGCCCAAATTCTCAAGGTTGTTGATGGGGAACCTGCCACTAAGAGAAGGCAGAGAGGTC
CCTAGTGGGTATATTTGCTGCCAAGCCACTTGCCAAAGAAGAGGAACCACAGAAAGAGAGACATCATGACCAGGA
GAAAAATGTGACTAGACATGCTAACCTCCAGGTTTTTATATATGACTTGAGTCTGCTGTAATTGGCAGCAGAAAT
CCAAATTTGTATGGTAGACCAAAAAGAACCAATCCATAGGGTGAAATTTTGAGACCTAGACTCTGTAAAAATAA
TCCTAGTCTTCCTCCAGGGGTCAGTTCCCTCACAGTGGTTCTGTACCAAAACTTGCCAAATTCCTCCATGGCCAAG
TGTTAAATCTGTGTTTGGAAATAGCGAATTAACCTAAGACACAGAAGGCAGACTGGGTGAGGAGACCTAGCAT
GCCCTATTGGCAGTGCTCAGGAGCTGCATCCCACTTTTCCCTGCTCTGAATCGAAGTCCTAGTTCCCTTCCCTTTGA
TTCTCCTTTGGTAGGTGGAATCAGTTAATGTTTTGAGAAACCTGCCTGGGCTCTGCCCTTAGTCATGACATCTCG
CTGAGCCAGACCCACTCTGTTCCCTGGAACCTAGAGCTGGAGTGAGGAGTAGAGGTCTCCGGCTATTCCAGAAAG
AAAAGTGAGCCACATGCAGGCTGATGAATGCCGACACTTCAGAATGTATAGAAATAGTCCCTGTCTGGCCTGC
CACTGACCCGTGTCTGTATTTTCTCGGAGGTGTTTTTCTCCTTCTCCTTCCCAGGAAGGTCTTTGTATGTGCAAT
CCAGTGCACTCAAGTTTGGCCAAGGGACTCCACAGCACCCAGAGGACTGCATGCCTCAAGGTTTATGTCACTCCT
CTGCTGGGCTGTTTCATTGTCTATTGCTGTGTTTCAGGGACCTTTGGAATAAAAACCTGTTCTGTCCCAATAAAACC
AGCCTGTGATGTTCAAGGGACTGGAATAAAGTGGCTTACGACCTGAAGGATTCTAAAAAAAAAAAAAAAAAAAAA

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FIGURE 749

MGKQNSKLRPEVMQDLLESTDFTEHEIQEWYKGFLRDCPSGHLMEEFKKIYGNFFPYGDASKFAEHVFRTFDAN
GDGTIDFREFIIALSVTSRGKLEQKLKWAFSMYDLGNGYISKAEMLVIVQAIYKMVSSVMKMPEDESTPEKRTE
KIFRQMDTNRDGKLSLEEFIRGAKSDPSIVRLLQCDPSSAGQF

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FIGURE 750

CACCTCGCTGCTCCAGCCTCTGGGGCGCATTCCAACCTTCCAGCCTGCGACCTGCGGAGAAAAAAATTACTTAT
TTTCTTGCCCCATACATACCTTGAGGCGAGCAAAAAAATTAAATTTTAACCATGAGGGAAATCGTGCACATCCAG
GCTGGTCAGTGTGGCAACCAGATCGGTGCCAAGTTCTGGGAGGTGATCAGTGATGAACATGGCATCGACCCACC
GGCACCTACCACGGGGACAGCGACCTGCAGCTGGACCGCATCTCTGTGTACTACAATGAAGCCACAGGTGGCAAA
TATGTTCTCGTGCCATCCTGGTGGATCTAGAACCTGGGACCATGGACTCTGTTTCGCTCAGGTCCTTTTGGCCAG
ATCTTTAGACCAGACAACCTTGTATTTGGTCAGTCTGGGGCAGGTAACAACCTGGGCCAAAGGCCACTACACAGAG
GGCGCCGAGCTGGTTGATTCTGTCTTGATGTGGTACGGAAGGAGGCAGAGAGCTGTGACTGCCTGCAGGGCTTC
CAGCTGACCCACTCACTGGGCGGGGGCACAGGCTCTGGAATGGGCACTCTCCTTATCAGCAAGATCCGAGAAGAA
TACCCTGATCGCATCATGAATACCTTCAGTGTGGTGCCTTCACCCAAAGTGTCTGACACCGTGGTTCGAGCCCTAC
AATGCCACCCTCTCCGTCCATCAGTTGGTAGAGAATACTGATGAGACCTATTGCATTGACAACGAGGCCCTCTAT
GATATCTGCTTCCGCACTCTGAAGCTGACCACACCAACCTACGGGGATCTGAACCACCTTGTCTCAGCCACCATG
AGTGGTGTCAACACCTGCCTCCGTTTCCCTGGCCAGCTCAATGCTGACCTCCGCAAGTTGGCAGTCAACATGGTC
CCCTTCCCACGTCTCCATTTCTTTATGCTTGGCTTTGCCCCCTCTCACCAGCCGTGGAAGCCAGCAGTATCGAGCT
CTCACAGTGCCGGAACCTACCCAGCAGGTCTTCGATGCCAAGAACATGATGGCTGCCTGTGACCCCCGCCACGGC
CGATACCTCACCGTGGCTGCTGTCTTCCGTGGTTCGGATGTCCATGAAGGAGGTCGATGAGCAGATGCTTAACGTG
CAGAACAAGAACAGCAGCTACTTTGTGGAATGGATCCCCAACAAATGTCAAGACAGCCGTCTGTGACATCCCACCT
CGTGGCCTCAAGATGGCAGTCACCTTCATTGGCAATAGCACAGCCATCCAGGAGCTCTTCAAGCGCATCTCGGAG
CAGTTCACTGCCATGTTCCGCCGAAGGCCCTTCCCTCACTGGTACACAGGCGAGGGCATGGACGAGATGGAGTTC
ACCGAGGCTGAGAGCAACATGAACGACCTCGTCTCTGAGTATCAGCAGTACCAGGATGCCACCGCAGAAGAGGAG
GAGGATTTCCGTGAGGAGGCCGAAGAGGAGGCCTAAGAGGCAGAGCCCCCATCACCTCAGGCTTCTCAGTTCCCTTA
GCCGTCTTACTCAACTGCCCTTTTCTCTCCCTCAGAATTTGTGTTTGTCTGCCTCTATCTTGTTTTTTGTTTTTT
CTTCTGGGGGGGGTCTAGAACAGTGCCTGGCACATAGTAGGCGCTCAATAAATACTTGTTTGTTGAATGTCTCCT
CTCTCTTTCCACTCTGGGAAACCTAGGTTTCTGCCATTCTGGGTGACCTGTATTCTTTCTGGTGGCCATTCCA
TTTGTCCAGTTAATACTTCCTCTTAAAAATCTCCAAGAAGCTGGGTCTCCAGATCCCATTTAGAACCAACCAGGT
GCTGAAAACACATGTAGATAATGGCCATCATCCTAAGCCCAAAGTAGAAAATGGTAGAAGGTAGTGGGTAGAAGT
CACTATATAAGGAAGGGGATGGGATTTTCCATTCTAAAAGTTTTGGAGAGGGAAATCCAGGCTATTAAAGTCACT
AAATTTCTAAGTATGTCCATTTCCCATCTCAGCTTCAAGGGAGGTGTCAGCAGTATTATCTCCACTTTCAATCTC
CCTCCAAGCTCTACTCTGGAGGAGTCTGTCCACTCTGTCAAGTGGAATCCTTCCCTTTCCAACCTCTACCTCCCT
CACTCAGCTCCTTTCCCCTGATCAGAGAAAGGGATCAAGGGGGTGGGAGGGGGGAAAGAGACCAGCCTTGGTCC
CTAAGCCTCCAGAAACGTCTTCTTAATCCCCACCTTTTCTTACTCCCCAAAAAGAATGAACACCCCTGACTCTGG
AGTGGTGTATACTGCCACATCAGTGTGTTGAGTCAGTCCCCAGAGGAGAGGGGAACCCCTCCTCCATCTTTTTTGCA
ACATCTCATTTCTTCTTTTGTGTTGCTTCCCCCTCACACACTTGGTTTTGTTCTATCCTACATTTGAGATTT
CTATTTTATGTTGAACCTGTGCTTTTTTTTATATTGAAAAGATGACATCGCCCCAAGAGCCAAAAATAAATGGG
AATTGAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 751

MREIVHIQAGQCGNQIGAKFWEVISDEHGIDPTGTYHGSDQLDRISVYYNEATGGKYVPRAILVDLEPGTMDS
VRSGPFGQIFRPDNFVFGQSGAGNNWAKGHYTEGAELVDSVLDVVRKEAESCDCLOGFQLTHSLGGGTGSGMGTL
LISKIREEYPDRIMNTFSVVPSPKVSDTVVEPYNATLSVHQLVENTDETYCIDNEALYDICFRTLKLTPTYGDL
NHLVSATMSGVTTCLRFPGQLNADLRKLAVNMVPFRLHFFMPGFAPLTSRGSQQYRALTVPELTQQVFDKNMM
AACDPRHGRYLTVAAVFRGRMSMKEVDEQMLNVQKNSSYFVEWIPNNVKTAVCDIPPRGLKMAVTFIGNSTAIQ
ELFKRISEQFTAMFRRKAFLHWYTGEGMDEMEFTEAESNMNDLVSEYQQYQDATAEEEEEDFGEEAEEEE .

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FIGURE 752

GAATTGAACCACCCATTTTCCTTTCTTAGCCAAATCACCAAATGTCCAGTTAGAACAAGAATTTAGCATTCTGC
AAAAGAAGTTAACAGCTGAGATAACGAGGAAATATTCTGAAATGGATCCCAAATATTTTCATCTTAATTTTGTTTT
GTGGACACCTGAACAATACATTTTTTTTCAAAGACAGAGACAATTACAACAGAGAAGCAGTCACAGCCTACCTTAT
TCACATCATCAATGTCACAGGTATTGGCTAATTCTCAAAACACAACAGGGAATCCTTTGGGTCAACCAACACAAT
TCAGCGACACTTTTTCTGGACAATCAATATCACCTGCCAAAGTCACTGCTGGACAACCAACACCAGCTGTCTATA
CCTCTTCTGAAAAACCAGAAGCACATACTTCTGCTGGACAACCACTTGCCTACAACACCAAACAACCAACACCAA
TAGCCAACACCTCCTCCCAGCAAGCCGTGTTACCTCTGCCAGACAACCTACCATCTGCCCGTACTTCTACCACAC
AACCACCAAAGTCATTTGTCTATACTTTTACTCAACAATCATCATCTGTCCAGATCCCTTCTAGAAAACAAATAA
CTGTTTCATAATCCATCCACACAACCAACATCAACTGTCAAAAATTCACCTAGGAGTACACCAGGATTTATCTTAG
ATACTACCAGTAACAAACAAACCCCAAAAAACAATTATAATTCAATAGCTGCCATACTAATTGGTGTACTTC
TGACTTCTATGTTGGTAGCTATAATCATCATTGTACTTTGGAAATGCTTAAGGAAACCAGTTTTAAATGATCAAA
ATTGGGCAGGTAGATCTCCATTTGCTGATGGAGAAACCCCTGACATTTGTATGGATAACATCAGAGAAAATGAAA
TATCCACAAAACGTACATCAATCATTTTCACTTACACCCTGGAAACCAAGCAAAAGCACACTTTTAGCAGATGACT
TAGAAATTAAGTTGTTTGAATCAAGTGAAAACATTGAAGACTCCAACAACCCCAAAACAGAGAAAATAAAAGATC
AAGTAAATGGTACATCAGAAGATAGTGCTGATGGTTCAACAGTTGGAACTGCTGTTTCTTCTCAGATGATGCAG
GTCTGCCTCCACCACCTCCCTTCTGGATTTGGAAGGACAGGAAAAGTAACCAATCTGACAAACCCACAATGACAA
TTGTATCTCCTCTTCCAAATGATTCTACTAGTCTCCCTCCATCTCTGGACTGTCTCAATCAAGACTGTGGAGATC
ATAAATCTGAGATAATAACAATCATTTCCACCGCTTGACTCACTTAACCTTGCCCCTGCCACCAGTAGATTTTATGA
AAAACCAAGAAGATTCCAACCTTGAGATCCAGTGTGAGGAGTTCTCTATTCTCTCCCAACTCTGATCAAGATCTTA
ATGAATCCCTGCCACCTCCACCTGCAGAACTGTTATAAATATTACAACCTTGCTTTTTAGCTGATCTTCCATCCTC
AAATGACTCTTTTTTCTTTATATGTTAACATATATAAAATGGCAACTGATAGTCAATTTTGATTTTTATTTCAGGA
ACTATCTGAAATCTGCTCAGAGCCTATGTGCATAGATGAACTTTTTTTTAAAAAAGTTATTTAACAGTAATCT
ATTTACTAATTATAGTACCTATCTTTAAAGTATAGTACATTTTACATATGTAAATGGTATGTTTCAATAATTTAA
GAACTCTGAAACAATCTACATATACTTATTACCCAGTACAGTTTTTTTTTCCCCTGAAAAGCTGTGTATAAAATTA
TGGTGAATAAACTTTTATGTTTCCATTTCAAAGACCAGGGTGGAGAGGAATAAGAGACTAAGTATATGCTTCAAG
TTTTAAATTAATACCTCAAGTATTAAATAAATATTCCAAGTTTGTGGGAATGGGAGATTAAAATGCATGTTTGAG
AGTAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 753

MDPKYFILILFCGHLNNTFFSKTETITTEKQSQPTLFTSSMSQVLANSQNTTGNPLGQPTQFSDTFSGQSISPAK
VTAGQPTPAVYTSSEKPEAHTSAGQPLAYNTKQPTPIANTSSQQAVFTSARQLPSARTSTTQPPKSFVYTFTQQS
SSVQIPSRKQITVHNPSTQPTSTVKNSPRSTPGFILDTTSNKQTPQKNYNSIAAILIGVLLTSM LV A I I I I V L W
KCLRKPV LNDQNWAGRSPFADGETPDICMDNIRENEISTKR T S I I S L T P W K P S K S T L L A D D L E I K L F E S S E N I E D
SNNPKTEKIKDQVNGTSEDSADGSTVGTA V S S S D D A G L P P P P L L D L E G Q E S N Q S D K P T M T I V S P L P N D S T S L P P
SLDCLNQDCGDHKSEIIQSFPPLDSLNLPLPPVDFMKNQEDSNLEIQCEFSIPPNSDQDLNESLPPPPAELL

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FIGURE 754

ATGCGTGAGTGCATCTCCATCCACGTTGGCCAGGCTGGTGTCCAGATTGGCAATGCCTGCTGGGAGCTCTACTGC
CTGGAACACGGCATCCAGCCCGATGGCCAGATGCCAAGTGACAAGACCATTGGGGGAGGAGATGATTCCTTCAAC
ACCTTCTTCAGTGAAACGGGTGCTGGCAAGCATGTGCCCCGGGCAGTGTGTGTAGACTTGGAACCCACAGTCATT
GATGAAGTTTCGCACTGGCACTTACCGCCAGCTCTTCCACCCTGAGCAACTCATCACAGGCAAGGAAGATGCTGCC
AATAACTATGCCCCGAGGGCACTACACCATTGGCAAGGAGATCATTGACCTCGTGTGGACCGAATTCGCAAGCTG
GCTGACCAGTGCACCGGTCTTCAGGGCTTCTTGGTTTTCCACAGCTTTGGTGGGGGAAC TGTTCTGGGTTTACC
TCGCTGCTCATGGAACGTCTCTCAGTTGATTATGGCAAGAAGTCCAAGCTGGAGTTCTCCATTTACCCGGCGCCC
CAGGTTTCCACAGCTGTAGTTGAGCCCTACAACCTCCATCCTCACCACCCACACCACCTGGAGCACTCTGATTGT
GCCTTCATGGTAGACAATGAGGCCATCTATGACATCTGTCTAGAAAACCTCGATATCGAGCGCCCAACCTACACT
AACCTTAACCGCCTTATTAGCCAGATTGTGTCTCTCCATCACTGCTTCCCTGAGATTTGATGGAGCCCTGAATGTT
GACCTGACAGAATTCCAGACCAACCTGGTGCCCTACCCCCGCATCCACTTCCCTCTGGCCACATATGCCCCTGTC
ATCTCTGCTGAGAAAAGCCTACCATGAACAGCTTACTGTAGCAGAGATCACCAATGCTTGCTTTGAGCCAGCCAAC
CAGATGGTGAAATGTGACCCTCGCCATGGTAAATACATGGCTTGCTGCCTGTTATACCGTGGTGACGTGGTTCCC
AAAGATGTCAATGCTGCCATTGCCACCATCAAAACCAAGCGTACCATCCAGTTTGTGGATTGGTGCCCCACTGGC
TTCAAGGTTGGCATTAAATTACCAGCCTCCCACTGTGGTGCCCTGGCGGAGACCTGGCCAAGGTACAGAGAGCTGTG
TGCATGCTGAGCAATACCACAGCTGTTGCCGAGGCCTGGGCTCGCCTGGACCACAAGTTTGACCTGATGTATGCC
AAGCGTGCCCTTTGTTCACTGGTACGTGGGTGAGGGGATGGAGGAAGGCGAGTTTTAGAGGCCCGTGAGGACATG
GCTGCCCTTGAGAAGGATTATGAGGAGGTTGGAGCAGATAGTGCTGACGGAGAGGATGAGGGTGAAGAGTATTAA

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FIGURE 755

MRECISIHVGQAGVQIGNACWELYCLEHGIQPDGQMPSDKTIGGGDDSFNTFFSETGAGKHVPRAVFVDLEPTVI
DEVRTGTYRQLFHPEQLITGKEDAANNYARGHYTIGKEIIDLVLDRIKRLADQCTGLQGFLVFHSFGGGTGSGFT
SLLMERLSVDYGKKSLEFSIYPAPQVSTAVVEPYNISILTTHTTLEHSDCAFMVDNEAIYDICRRNLDIERPTYT
NLNRLISQIVSSITASLRFDGALNVDLTEFQTNLVPYPRIHFPLATYAPVISAEKAYHEQLTVAEITNACFEPAN
QMVKCDPRHGKYMCCLLYRGDVVPKDVNAAIATIKTKRTIQFVDWCPTGFKVGINYQPPTVVPGGDLAKVQRAV
CMLSNTTAVAEAWARLDHKFDLMYAKRAFVHWYVGEGMEEGEFSEAREDMAALEKDYEYEVGADSADGEDEGEY

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FIGURE 756

GCCACACGGTCTTTGAGCTGAGTCGAGGTGGACCCTTTGAACGCAGTCGCCCTACAGCCGCTGATTCCCCCGCA
TCGCCTCCCGTGGAAGCCAGGCCCGCTTCGCAGCTTTCTCCCTTTGTCTCATAACCATGTCCACCAACGAGAAT
GCTAATACACCAGCTGCCCGTCTTCACAGATTCAAGAACAAGGGAAAAGACAGTACAGAAATGAGGCGTCGCAGA
ATAGAGGTCAATGTGGAGCTGAGGAAAGCTAAGAAGGATGACCAGATGCTGAAGAGGAGAAATGTAAGCTCATT
CCTGATGATGCTACTTCTCCGCTGCAGGAAAACCGCAACAACCAGGGCACTGTAAATTGGTCTGTTGATGACATT
GTCAAAGGCATAAATAGCAGCAATGTGGAAAATCAGCTCCAAGCTACTCAAGCTGCCAGGAAACTACTTTCCAGA
GAAAAACAGCCCCCATAGACAACATAATCCGGGCTGGTTTGATTCCGAAATTTGTGTCCTTCTTGGGCAGAACT
GATTGTAGTCCCATTCACTTTGAATCTGCTTGGGCACTACTAACATTGCTTCTGGGACATCAGAACAAACCAAG
GCTGTGGTAGATGGAGGTGCCATCCCAGCATTCAATTTCTCTGTTGGCATCTCCCCATGCTCACATCAGTGAACAA
GCTGTCTGGGCTCTAGGAAACATTGCAGGTGATGGCTCAGTGTTCCGAGACTTGGTTATTAAGTACGGTGCAGTT
GACCCACTGTTGGCTCTCCTTGCACTTCTGATATGTCATCTTTAGCATGTGGCTACTTACGTAATCTTACCTGG
ACACTTTCTAATCTTTGCCGCAACAAGAATCCTGCACCCCGATAGATGCTGTTGAGCAGATTCTTCCTACCTTA
GTTCCGGCTCCTGCATCATGATGATCCAGAAGTGTTAGCAGATACCTGCTGGGCTATTTCTTACCTTACTGATGGT
CCAAATGAACGAATTGGCATGGTGGTGAAAACAGGAGTTGTGCCCAACTTGTGAAGCTTCTAGGAGCTTCTGAA
TTGCCAATTGTGACTCCTGCCCTAAGAGCCATAGGGAATATTGTCACTGGTACAGATGAACAGACTCAGGTTGTG
ATTGATGCAGGAGCACTCGCGTCTTTCCAGCCTGCTCACCAACCCCAAACTAACATTCAGAAGGAAGCTACG
TGGACAATGTCAAACATCACAGCCGGCCGCCAGGACCAGATACAGCAAGTTGTGAATCATGGATTAGTCCCATTC
CTTGTCAGTGTTCTCTCTAAGGCAGATTTTAAGACACAAAAGGAAGCTGTGTGGGCCGTGACCAACTATACCAGT
GGTGGAACAGTTGAACAGATTGTGTACCTTGTTCACTGTGGCATAATAGAACCGTTGATGAACCTCTTAAGTGA
AAAGATACCAAGATTATTCTGGTTATCCTGGATGCCATTTCAAATATCTTTCAGGCTGCTGAGAACTAGGTGAA
ACTGAGAACTTAGTATAATGATTGAAGAATGTGGAGGCTTAGACAAAATTGAAGCTCTACAAAACCATGAAAAT
GAGTCTGTGTATAAGGCTTCGTTAAGCTTAATTGAGAAGTATTTCTCTGTAGAGGAAGAGGAAGATCAAAACGTT
GTACCAGAACTACCTCTGAAGGCTACACTTTCCAAGTTCAGGATGGGGCTCCTGGGACCTTTAACTTTTTAGATC
ATGTAGCTGAGACATAAATTTGTTGTGTACTACGTTTGGTATTTTGTCTTATTGTTTCTCTACTAAGAAGCTCTT
CTTAAATGTGGTTTGTACTGTAGCACTTTTTACACTGAAACTATACTTGAACAGTTCCAAGTGTACATACATAC
TGTATGAAGCTTGTCTCTGACTAGGTTTCTAATTTCTATGTGGAATTTCTATCTTGCAGCATCCTGTAAATAA
ACATTCAAGTCCACCCCTTAAAAAAA

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FIGURE 757

MSTNENANTPAARLHRFKNGKDDSTEMRRRRRIEVNVELRKAKKDDQMLKRRNVSSFPDDATSPLOENRNNQGTVN
WSVDDIVKGINSSNVENQLQATQAARKLLSREKQPPIDNIIIRAGLIPKFVSFLGRDTCSPIQFESAWALTNIASG
TSEQTKAVVDGGAIPAFISLLASPHAHISEQAVWALGNIAGDGSVFRDLVIKYGAVDPLLALLAVPDMSSLACGY
LRNLTWTLNLNCRNKNPAPPIDAVEQILPTLVRLHHDDPEVLADTCWAISYLTGPNRIGMVVKTGVPQLVK
LLGASELP IVTPALRAIGNIVTGTDEQTQVVIDAGALAVFPSLLTNPKTNIQKEATWTMSNITAGRQDQIQQVVN
HGLVPFLVSVLSKADFKTQKEAVWAVTNYTSGGTVEQIVYLVHCGIIEPLMNLLTAKDTKIILVILDAISNIFQA
AEKLGETEKL SIMIEECGGLDKIEALQNHENESVYKASLSLIEKYFSVEEEDQNVVPETTSEGYTFQVDGAPG
TFNF

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FIGURE 758

ATGGCGAAATATAACACGGGGGGCAACCCGACAGAGGATGTCTCAGTCAATAGCCGACCCTTCAGAGTCACAGGG
CCAAACTCATCTTCAGGAATACAAGCAAGAAAGAACTTATTCAACAACCAAGGAAATGCCAGCCCTCCTGCAGGA
CCCAGCAATGTACCTAAGTTTGGGTCCCCAAAGCCACCTGTGGCAGTCAAACCTTCTTCTGAGGAAAAGCCTGAC
AAGGAACCCAAGCCCCGTTTCTAAAGCCCACTGGAGCAGGCCAAAGATTTCGGAACACCAGCCAGCTTGACCACC
AGAGACCCCGAGGCGAAAGTGGGATTTCTGAAACCTGTAGGCCCAAGCCCATCAACTTGCCCAAAGAAGATTCC
AAACCTACATTTCCCTGGCCTCCTGGAAACAAGCCATCTCTTCACAGTGTAACCAAGACCATGACTTAAAGCCA
CTAGGCCCGAAATCTGGGCCTACTCCTCCAACCTCAGAAAATGAACAGAAGCAAGCGTTTCCCAAATTGACTGGG
GTTAAAGGGAAATTTATGTCAGCATCACAAAGATCTTGAACCCAAGCCCCCTTCCCAAACCCGCCTTTGGCCAG
AAGCCGCCCCTAAGTACCGAGAATCCCATGAAGACGAAAGCCCCATGAAGAATGTGTCTTCATCAAAAGGGTCC
CCAGCTCCCCTGGGAGTCAGGTCCAAAAGCGGCCCTTTAAAACCAGCAAGGGAAGACTCAGAAAATAAAGACCAT
GCAGGGGAGATTTCAAGTTTGCCCTTTCCTGGAGTGGTTTTGAAACCTGCTGCGAGCAGGGGAGGCCAGGTCTC
TCCAAAATGGTGAAGAAAAAAGGAAGATAGGAAGATAGATGCTGCTAAGAACACCTTCCAGAGCAAAATAAAT
CAGGAAGAGTTGGCCTCAGGGACTCCTCCTGCCAGGTTCCCTAAGGCCCTTCTAAGCTGACAGTGGGGGGGCCA
TGGGGCCAAAGTCAGGAAAAGGAAAAGGGAGACAAGAATTAGCCACCCCGAAACAGAGCCATTGCCTCCCTTG
TTTACCTTGGGTCCACCTCCACCAAAACCCAACAGACCACCAAATGTTGACCTGACGAAATTCACAAAACCTCT
TCTGGAAACAGTACTAGCAAAGGCCAGACGTCTTACTCAACAACCTTCCCTGCCACCACCTCCACCATCCCATCCG
GCCAGCCAACCACCATTGCCAGCATCTCACCCATCACAACCACCAGTCCCAAGCCTACCTCCCAGAAACATTAA
CCTCCGTTTGACCTAAAAAGTCTGTCAATGAAGACAATCAAGATGGTGTACGCACTCTGATGGTGTGGAAT
CTAGATGAGGAACAAGACAGTGAAGGAGAAACATATGAAGACATAGAAGCATCCAAAGAAAGAGAGAAGAAAAGG
GAAAAGGAAGAAAAGAAGAGGTTAGAGCTGGAGAAAAGGAACAGAAAGAGAAAGAAAAGAAACAAGAAATA
AAGAAGAAATTTAACTAACAGGCCCTATTCAAGTCATCCATCTTGCAAAAGCTTGTGTGATGTCAAAGGAGGA
AAGAATGAACTGAGCTTCAAGCAAGGAGAGCAAATTGAAATCATCCGCATCACAGACAACCCAGAAGGAAAATGG
TTGGGCAGAACAGCAAGGGGTTTATATGGCTATATTTAAACAACCTGCTGTAGAGATTGACTATGATTCTTTGAA
CTGAAAAAAGACTCTCTTGGTGCCCCCTTCAAGACCTATTGAAGATGACCAAGAAGTATATGATGATGTTGCAGAG
CAGGATGATATTAGCAGCCACAGTCAGAGTGAAGTGGAGGGATATTCCCTCCACCACCAGATGATGACATTTAT
GATGGGATTGAAGAGGAAGATGCTGATGATGGCTCCACACTACAGGTTCAAGAGAAGAGTAATACGTGGTCTTG
GGGATTTTGAAGATGTTAAAGGGAAGAGATGACAGAAAGAAAAGTATACGAGAGAAACCTAAAGTCTCTGACTCA
GACAATAATGAAGGTTTATCTTTCCCTGCTCCTCTAAACAATTGGACATGGGAGATGAAGTTTACGATGATGTG
GATACCTCTGATTTCCCTGTTTATCAGCAGAGATGAGTCAAGGAACTAATTTTGGAAAAGCTAAGACAGAAGAA
AAGGACCTTAAGAAGCTAAAAAAGCAGGAAAAAGAAGAAAAGACTTCAGGAAAAAATTTAAATATGATGGTGAA
ATTAGAGTCTATATTCACTAAAGTTACAACCTTCATAACTTCTAAAAAGTGGGGAACCCAGAGATCTACAGGTA
AAACCTGGTGAATCTCTAGAAGTTATACAAACCACAGATGACACAAAAGTTCTCTGCAGAAATGAAGAAGGGAAA
TATGGTTATGTCCTTCGGAGTTACCTAGCGGACAATGATGGAGAGATCTATGATGATATTGCTGATGGCTGCATC
TATGACAATGACT**TAG**

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FIGURE 759

MAKYNTGGNPTEDVSVNSRPFRTGPNSSSGIQARKNLFNNQGNASPPAGPSNVPKFGSPKPPVAVKPSSEKPD
KEPKPPFLKPTGAGQRFGTPASLTTRDPEAKVGFLKPVGPKPINLPKEDSKPTFPWPPGNKPSLHNVNDHDLKP
LGPKSGPTPPTSENEQKQAFPKLTGVKGKFMASQDLEPKPLFPKPAFGQKPPPLSTENSHEDESPMKNVSSSKGS
PAPLGVRSGPLKPARESENKDHAGEISSLPFGVVLKPAASRGGPGLSKNGEEKKEDRKIDAAKNTFQSKIN
QEELASGTPPARFPKAPSKLTVGGPWGQSQEKEKGDKN SATPKQKPLPPLFTLGPPPPKPNRPPNVDLTKFHKTS
SGNSTSKGQTSYSTTSLPPPPSHPASQPPLPASHPSQPPVPSLPPRNIKPPFDLKSPVNEQDGVTHSDGAGN
LDEEQDSEGETYEDIEASKEREKKREKEKKRLELEKKEQKEKEKKEQEIKKKFKLTGPIQVIHLAKACCDVKGG
KNELSFQGEQIEIIRITDNPEGKWLGR TARGSYGYIKTTAVEIDYDSLKLK KDSL GAPSRPIEDDQEVYDDVAE
QDDISSHSQSGSGGIFPPPPDDDIYDGIEEDADDGSTLQVQEKSN TWSWGILKMLKGDDRKKSIREKPKVSDS
DNNEGSSFPAPPKQLDMGDEVYDDVDTSDFPVSSAEMSQGTNFGKAKTEEKDLKKLKKQEKEEKDFRKKFKYDGE
IRVLYSTKVTTSTTSKKWGTRDLQVKPGESLEVIQTDDTKVLCRNEEGKYGYVLR SYLADNDGEIYDDIADGCI
YDND

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FIGURE 760

TAGGATGGAAAGGCAGATGTAAAGTCCCTCATGGCGAAATATAACACGGGGGGCAACCCGACAGAGGATGTCTCA
GTCAATAGCCGACCCTTCAGAGTCACAGGGCCAAACTCATCTTCAGGAATACAAGCAAGAAAGAACTTATTCAAC
AACCAAGGAAATGCCAGCCCTCCTGCAGGACCCAGCAATGTACCTAAGTTTGGGTCCCCAAAGCCACCTGTGGCA
GTCAAACCTTCTTCTGAGGAAAAGCCTGACAAGGAACCCAAGCCCCCGTTTCTAAAGCCCCTGGAGCAGGCCAA
AGATTGGAACACCAGCCAGCTTGACCACCAGAGACCCCGAGGCGAAAGTGGGATTTCTGAAACCTGTAGGCCCC
AAGCCCATCAACTTGCCCAAAGAAGATTCCAAACCTACATTTCCCTGGCCTCCTGGAAACAAGCCATCTCTTCAC
AGTGTAACCAAGACCATGACTTAAAGCCACTAGGCCCCGAAATCTGGGCCTACTCCTCCAACCTCAGAAAATGAA
CAGAAGCAAGCGTTTCCCAAATTGACTGGGGTTAAAGGGAAATTTATGTCAGCATCACAAAGATCTTGAACCCAAG
CCCCTCTTCCCCAAACCCGCCCTTTGGCCAGAAGCCGCCCTTAAGTACCGAGAACTCCCATGAAGACGAAAGCCCC
ATGAAGAATGTGTCTTCATCAAAAGGGTCCCCAGCTCCCCTGGGAGTCAGGTCCAAAAGCGGCCCTTTAAACCA
GCAAGGGAAGACTCAGAAAATAAGACCATGCAGGGGAGATTTCAAGTTTGCCCTTTCTGGAGTGGTTTTGAAA
CCTGCTGCGAGCAGGGGAGGCCTAGGTCTCTCCAAAATGGTGAAGAAAAAAGGAAGATAGGAAGATAGATGCT
GCTAAGAACACCTTCCAGAGCAAAATAAATCAGGAAGAGTTGGCCTCAGGGACTCCTCCTGCCAGGTTCCCTAAG
GCCCCCTTCTAAGCTGACAGTGGGGGGGCCATGGGGCCAAAGTCAGGAAAAGGAAAAGGGAGACAAGAATTCAGCC
ACCCCGAAACAGAAGCCATTGCCTCCCTTGTTTTACCTTGGGTCCACCTCCACCAAACCCAACAGACCACCAAT
GTTGACCTGACGAAATTCACAAAACCTCTTCTGGAACAGTACTAGCAAAGGCCAGACGTCTTACTCAACAAC
TCCCTGCCACCACCTCCACCATCCCATCCGGCCAGCCAACCACCATTGCCAGCATCTCACCATCACAACCACCA
GTCCAAGCCTACCTCCCAGAAACATTAAACCTCCGTTTGACCTAAAAAGCCCTGTCAATGAAGACAATCAAGAT
GGTGTCACGCACTCTGATGGTGCTGGAAATCTAGATGAGGAACAAGACAGTGAAGGAGAAACATATGAAGACATA
GAAGCATCCAAAGAAAGAGAGAAGAAAAGGGAAGGAAGAAAAGAGAGGTTAGAGCTGGAGAAAAGGAACAG
AAAGAGAAAGAAAAGAAAGAACAAGAAATAAAGAAGAAATTTAAACTAACAGGCCCTATTCAAGTCATCCATCTT
GCAAAAGCTTGTTGTGATGTCAAAGGAGGAAAGAATGAACTGAGCTTCAAGCAAGGAGAGCAAATTGAAATCATC
CGCATCACAGACAACCCAGAAGGAAAATGGTTGGGCAGAACAGCAAGGGGTTTCATATGGCTATATTTAAACAAC
GCTGTAGAGATTGACTATGATTCTTTGAAACTGAAAAAGACTCTCTTGGTGCCCTTCAAGACCTATTGAAGAT
GACCAAGAAGTATATGATGATGTTGCAGAGCAGGATGATATTAGCAGCCACAGTCAGAGTGAAGTGGAGGGATA
TTCCCTCCACCACCAGATGATGACATTTATGATGGGATTGAAGAGGAAGATGCTGATGATGGTTTCCCTGCTCCT
CCTAAACAATTGGACATGGGAGATGAAGTTTACGATGATGTGGATACCTCTGATTTCCCTGTTTCATCAGCAGAG
ATGAGTCAAGGAACTAATTTTGGAAAAGCTAAGACAGAAGAAAAGGACCTTAAGAAGCTAAAAAGCAGGAAAAA
GAAGAAAAAGACTTCAGGAAAAAATTTAAATATGATGGTGAATTAGAGTCCTATATTCAACTAAAGTTACAAC
TCCATAACTTCTAAAAAGTGGGGAACCAGAGATCTACAGGTAAACCTGGTGAATCTCTAGAAGTTATACAAACC
ACAGATGACACAAAAGTTCTCTGCAGAAATGAAGAAGGGAAATATGGTTATGTCCTTCGGAGTTACCTAGCGGAC
AATGATGGAGAGATCTATGATGATATTGCTGATGGCTGCATCTATGACAATGACTAGCACTCAACTTTGGTCATT

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FIGURE 761

MAKYNTGGNPTEDVSVNSRPFRVTGPNSSSGIQARKNLFNNQGNASPPAGPSNVPKFGSPKPPVAVKPSSEEKPD
KEPKPPFLKPTGAGQRFGTASLTTRDPEAKVGFLKPVGPKPINLPKEDSKPTFPWPPGNKPSLHSVNQDHDLP
LGPKSGPTPPTSENEQKQAFPKLTGVKGKFMASQDLEPKPLFPKPAFGQKPPLSTENSHEDESPMKNVSSSKGS
PAPLGVRKSGPLKPARESENKDHAGEISSLPFPGVVLKPAASRGGLGLSKNGEEKKEDRKIDAAKNTFQSKIN
QEELASGTPPARFPKAPSKLTVGGPWGQSQEKEKGDKN SATPKQKPLPPLFTLGPPPPKPNRPPNVDLTKFHKT
SGNSTSKGQTSYSTTSLPPPPPSHPASQPPLPASHPSQPPVPSLPPRNIKPPFDLKSPVNEDNQDGVTHSDGAGN
LDEEQDSEGETYEDIEASKEREKKREKEKKRLELEKKEQKEKEKKEQEIKKKFKLTGPIQVIHLAKACCDVKGG
KNELSFKQGEQIEIIRITDNPEGKWLGR TARGSYGYIKTTAVEIDYDSLKLKDSL GAPSRIEDDQEVYDDVAE
QDDISSHSQSGSGGIFPPPPDDDIYDGIEEDADDGFPAPPKQLDMGDEVYDDVDTSDFPVSSAEMSQGTNFGKA
KTEEKDLKKLKKQEKEEKDFRKKFKYDGEIRVLYSTKVTTTSITSKKWGTRDLQVKPGESLEVIQT TDDTKVLCRN
EEGKYGYVLR SYLADNDGEIYDDIADGCIYDND

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FIGURE 762A

GCCCCAGGGCCTGGAGAGGTCTGAAGAAACCTGGGAGCCAGCAGCCCCGGGGCTCCACTCTGGGTTCTGAAAGCCC
ATTCCCTGCTCTGCGGCTCCTCCACCCCACCTCTTCTCAGCCTTGCAGCTCAAGGGTTGATCTCAGGAGTCCAG
GACCCAGGAGAGGGAAGAATCTGAGGAACACAGAACAGTGAGCGTTGCCACACCCCATCTCCCGTACCACATC
TCCCCTACCCTCACCCTCCCTGCCTGGCCCTGGACCCCATCCCAGGACCTCCCTATCAGCTGACTTCTTCCAGT
GTCTTGACAGGCCCTCTGGGCTCCTCCCTCCCTGGCTTTTCTTACCCTCCCTCTATCGGCGTCTATCTGTA
GGTGCCCTGGGATTTATAAACTGGGTTCCGAATGCTGAATAAGAGACGGTAAGAGCCAAGGCAAAGGACAGCAC
TGTTCTCTGCCTGCCTGATACCCTCACCACCTGGGAACATCCCCAGACACCCTCTTAACCTCCGGGACAGAGATG

GCTGGCGGAGCCTGGGGCCGCCTGGCCTGTTACTTGGAGTTCCTGAAGAAGGAGGAGCTGAAGGAGTTCAGCTT
CTGCTCGCCAATAAAGCGCACTCCAGGAGCTCTTCGGGTGAGACACCCGCTCAGCCAGAGAAGACGAGTGGCATG
GAGGTGGCCTCGTACCTGGTGGCTCAGTATGGGGAGCAGCGGGCTGGGACCTAGCCCTCCATACCTGGGAGCAG
ATGGGGCTGAGGTCACTGTGCGCCCAAGCCCAGGAAGGGGAGGCGCACTCTCCCTCATTCCCCTACAGCCCAAGT
GAACCCACCTGGGGTCTCCCAGCCAACCCACCTCCACCGCAGTGCTAATGCCCTGGATCCATGAATTGCCGGCG
GGGTGCACCCAGGGCTCAGAGAGAAGGGTTTTGAGACAGCTGCCTGACACATCTGGACGCCGCTGGAGAGAAATC
TCTGCCCTCACTCCTCTACCAAGCTCTTCCAAGCTCCCCAGACCATGAGTCTCCAAGCCAGGAGTCAACCAACGCC
CCACATCCACAGCAGTGTGGGGAGCTGGGGATCCCCACCTCAGCCCAGCCTAGCACCCAGAGAGCAGGAGGCT
CCTGGGACCCAATGGCCTCTGGATGAAACGTGAGGAATTTACTACACAGAAATCAGAGAAAGAGAGAGAGAGAAA
TCAGAGAAAGGCAGGCCCCCATGGGCAGCGGTGGTAGGAACGCCCCACAGGCGCACACCAGCCTACAGCCCCAC
CACCACCATGGGAGCCTTCTGTGAGAGAGAGCCTCTGTTCCACATGGCCCTGGAAAAATGAGGATTTTAACCAA
AAATTCACACAGCTGCTACTTCTACAAAGACCTCACCCAGAAAGCCAAGATCCCCTGGTCAAGAGAAGCTGGCCT
GATTATGTGGAGGAGAATCGAGGACATTTAATTGAGATCAGAGACTTATTTGGCCCAGGCCTGGATACCCAAGAA
CCTCGCATAGTCATACTGCAGGGGGCTGCTGGAATTGGGAAGTCAACACTGGCCAGGCAGGTGAAGGAAGCCTGG
GGGAGAGGCCAGCTGTATGGGGACCGCTTCCAGCATGTCTTCTACTTCAGCTGCAGAGAGCTGGCCAGTCCAAG
GTGGTGAGTCTCGCTGAGCTCATCGGAAAAGATGGGACAGCCACTCCGGCTCCCATTAGACAGATCCTGTCTAGG
CCAGAGCGGCTGCTCTTCATCCTCGATGGTGTAGATGAGCCAGGATGGGTCTTGAGGAGCCGAGTTCTGAGCTC
TGTCTGCACTGGAGCCAGCCACAGCCGGCGGATGCACTGCTGGGCAGTTTGCTGGGGAAAACATACTTCCCGAG
GCATCCTTCTGATCACGGCTCGGACCACAGCTCTGCAGAACCTCATTCTTCTTTGGAGCAGGCACGTTGGGTA
GAGGTCTTGGGGTTCTCTGAGTCCAGCAGGAAGGAATATTTCTACAGATATTTACAGATGAAAGGCAAGCAATT
AGAGCCTTTAGGTTGGTCAAATCAAACAAAGAGCTCTGGGCCCTGTGTCTTGCTGGCTGGGTTGCTGGCTGGCC
TGCATTTGCCCTGATGCAGCAGATGAAGCGGAAGGAAAAACTCACACTGACTTCCAAGACCACCACAACCTCTGT
CTACATTACCTTGCCAGGCTCTCCAAGCTCAGCCATTGGGACCCCAGCTCAGAGACCTCTGCTCTCTGGCTGCT
GAGGGCATCTGGCAAAAAAAGACCCTTTTTCAGTCCAGATGACCTCAGGAAGCATGGGTTAGATGGGGCCATCATC
TCCACCTTCTTGAAGATGGGTATTCTTCAAGAGCACCCCATCCCTCTGAGCTACAGCTTCACTTACCTCTGTTTC
CAAGAGTTCTTTGAGCAATGTCTATGTCTTGGAGGATGAGAAGGGGAGAGGTAACATTCTAATTGCATCATA
GATTTGAAAAAGACGCTAGAAGCATATGGAATACATGGCCTGTTTGGGGCATCAACCACACGTTTCTATTGGGC
CTGTTAAGTGATGAGGGGAGAGAGAGATGGAGAACATCTTTCAGTCCCGCTGTCTCAGGGGAGGAACCTGATG
CAGTGGGTCCCGTCCCTGCAGCTGCTGCTGCAGCCACACTCTTGAGTCCCTCCACTGCTTGTACGAGACTCGG
AACAAAACGTTCTTGACACAAGTGATGGCCCATTTTGAAGAAATGGGCATGTGTGTAGAAACAGACATGGAGCTC
TTAGTGTGCACTTTCTGCATTAAATTACAGCCGCCACGTGAAGAAGCTTCAGCTGATTGAGGGCAGGCAGCAGAG
TCAACATGGAGCCCCACCATGGTAGTCTGTTTCAAGGTGGGTCCAGTCAAGATGCCTATTGGCAGATTCTCTTC
TCCGTCTCAAGGTACCCAGAAACCTGAAGGAGCTGGACCTAAGTGGAACTCGCTGAGCCACTCTGCAGTGAAG
AGTCTTTGTAAGACCTTGAGACGCCCTCGCTGCCTCCTGGAGACCCTGCGGTTGGCTGGCTGTGGCCTCACAGCT
GAGGACTGCAAGGACCTTGCCCTTTGGGCTGAGAGCCAACCAGACCCTGACCGAGCTGGACCTGAGCTTCAATGTG
CTCACGGATGCTGGAGCCAAACACCTTTGCCAGAGACTGAGACAGCCGAGCTGCAAGCTACAGCGACTGCAGCTG
GTCAGCTGTGGCCTCACGTCTGACTGCTGCCAGGACCTGGCCTCTGTGCTTAGTGCCAGCCCCAGCCTGAAGGAG
CTAGACCTGCAGCAGAACCACTGGATGACGTTGGCGTGCGACTGCTCTGTGAGGGGCTCAGGCATCCTGCCTGC
AAACTCATACGCTGGGGCTGGACCAGACAACCTCTGAGTGATGAGATGAGGCAGGAACCTGAGGGCCCTGGAGCAG
GAGAAACCTCAGCTGCTCATCTTCAGCAGACGGAAACCAAGTGATGACCCCTACTGAGGGCCTGGATACGGGA
GAGATGAGTAATAGCACATCTCACTCAAGCGGCAGAGACTCGGATCAGAGAGGGCGGCTTCCCATGTTGCTCAG

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FIGURE 762B

GCTAATCTCAAACCTCCTGGACGTGAGCAAGATCTTCCCAATTGCTGAGATTGCAGAGGAAAGCTCCCCAGAGGTA
GTACCGGTGGAACCTCTTGTGCGTGCCTTCTCCTGCCTCTCAAGGGGACCTGCATACGAAGCCTTTGGGGACTGAC
GATGACTTCTGGGGCCCCACGGGGCCTGTGGCTACTGAGGTAGTTGACAAAAGAAAAGAACTTGTACCGAGTTTAC
TTCCCTGTAGCTGGCTCCTACCGCTGGCCCAACACGGGTCTCTGCTTTGTGATGAGAGAAGCGGTGACCGTTGAG
ATTGAATTCTGTGTGTGGGACCAGTTTCTGGGTGAGATCAACCCACAGCACAGCTGGATGGTGGCAGGGCCTCTG
CTGGACATCAAGGCTGAGCCTGGAGCTGTGGAAGCTGTGCACCTCCCTCACTTTGTGGCTCTCCAAGGGGGCCAT
GTGGACACATCCCTGTTCCAAATGGCCCACTTTAAAGAGGAGGGGATGCTCCTGGAGAAGCCAGCCAGGGTGGAG
CTGCATCACATAGTTCTGGAACCCAGCTTCTCCCCCTTGGGAGTCTCCTGAAAATGATCCATAATGCCCTG
CGCTTCATTCCCGTCACCTCTGTGGTGTGCTTTACCACCGCTCCATCCTGAGGAAGTCACCTTCCACCTCTAC
CTGATCCCAAGTGACTGCTCCATTGGAAGGAAGTGGAGCTCTGCTATCGAAGCCCTGGAGAAGACCAGCTGTTT
TCGGAGTTCTACGTTGGCCACTTGGGATCAGGGATCAGGCTGCAAGTGAAAAGACAAGAAAGATGAGACTCTGGTG
TGGGAGGCCTTGGTGAAACCAGGAGATCTCATGCCTGCAACTACTCTGATCCCTCCAGCCCGCATAGCCGTACCT
TCACCTCTGGATGCCCCGCAGTTGCTGCACCTTTGTGGACCAGTATCGAGAGCAGCTGATAGCCCGAGTGACATCG
GTGGAGGTTGTCTTGGACAAACTGCATGGACAGGTGCTGAGCCAGGAGCAGTACGAGAGGGTGCTGGCTGAGAAC
ACGAGGCCCCAGCCAGATGCGGAAGCTGTTTCACTTGGAGCCAGTCTTGGGACCGGAAGTGCAAAGATGGACTCTAC
CAAGCCCTGAAGGAGACCCATCCTCACCTCATTATGGAAGTCTGGGAGAAGGGCAGCAAAAAGGGACTCCTGCCA
CTCAGCAGCTGAAGTATCAACACCAGCCCTTGACCCTTGAGTCTTGGCTTTGGCTGACCCTTCTTTGGGTCTCAG
TTTCTTTCTCTGCAAACAAGTTGCCATCTGGTTTGCCTTCCAGCACTAAAGTAATGGAAGTTTGATGATGCCTTT
GCTGGGCATTATGTGTCCATGCCAGGGATGCCACAGGGGGCCCCAGTCCAGGTGGCCTAACAGCATCTCAGGGAA
TGTCCATCTGGAGCTGGCAAGACCCCTGCAGACCTCATAGAGCCTCATCTGGTGGCCACAGCAGCCAAGCCTAGA
GCCCTCCGGATCCCATCCAGGCGCAAAGAGGAATAGGAGGGACATGGAACCATTTGCCTCTGGCTGTGTACAGG
GTGAGCCCCAAAATTGGGGTTTCAAGCTGGGAGGCCACGTGGATTCTTGGCTTTGTACAGGAAGATCTACAAGAGC
AAGCCAACAGAGTAAAGTGGAAGGAAGTTTATTAGAAAATAAAGGAGTATCACAGCTCTTTTAGAATTTGTCTA
GCAGGCTTTCCAGTTTTTACCAGAAAACCCCTATAAATTAATAAATTTTACTTAAATTTAAGAATTAATAAAT
ACAAAAAGAAAAAATGAAAATAAAGGAATAAGAAGTTACCTACTCCAAAAA

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FIGURE 763

MAGGAWGRLACYLEFLKKEELKEFQLLLANKAHSRSSSGETPAQPEKTSGMEVASYLVAQYGEQRAWDLALHTWE
QMGLRSLCAQAQEGAGHSPSFPYSPSEPHLGSPSQPTSTAVLMPWIHELPAAGCTQGSERRVLRQLPDTSGRRWRE
ISASLLYQALPSSPDHESPSQESPNAPTSTAVLGSWGSPQPQSLAPREQEAPGTQWPLDETSGIYYTEIRERERE
KSEKGRPPWAAVVGTPPQAHTSLQPHHPWEPSVRESLCSTWPWKNEFDNQKFTQLLLLQRPHPRSQDPLVKRSW
PDYVEENRGHLIEIRDLFGPGLDTQEPRIVILQGAAGIGKSTLARQVKEAWGRGQLYGDRFQHVIFYSCRELAQS
KVVSLAELIGKDGATATPAPIRQILSRPERLLFILDGVDEPGWVLQEPSSSELCLHWSQPQPADALLGSLLGKTILP
EASFLITARTTALQNLIPSLEQARWVEVLGFSESSRKEYFYRYFTDERQAIRAFRLVKSNNKELWALCLVPVWSWL
ACTCLMQMKRKEKLTLSKTTTTLCLHYLAQALQAQPLGQQLRDLCSLAAEGIWQKKTLSFSPDDLKRGHLDGAI
ISTFLKMGILQEHP IPLSYF IHLCFQEFFAAMSYVLEDEKGRGKHSNCI IDLEKTLEAYGIHGLFGASTTRFLL
GLLSDEGEREMENIFHCRLSQGRNLMQWVPSLQLLLQPHSLESLSHCLYETRNTFLTQVMAHFEEMGMCVETDME
LLVCTFCIKFSRHVKKLQLIEGRQHRSTWSPTMVVLFWRVVPVTDAYWQILFSVLKVTRNLKELDLSGNSLSHSAV
KSLCKTLRRPRCLLETTLRLAGCGLTAEDCKDLAFGLRANQTLTELDLSFNVLTDAGAKHLCQRLRQPSCKLQRLQ
LVSCGLTSDCCQDLASVLSASPSLKELDLQNNLDDVGVRLLCEGLRHPACKLIRLGLDQTTLSDEMROELRALE
QEKPQLLIFSRRKPSVMTPTTEGLDTGEMSNSTSSLKRQRLGSEARAASHVAQANLKLDDVSKIFPIAEIAEESPE
VVPVELLCVPSPASQGD LHTKPLGTDDDFWGPTGPVATEVVDKEKNLYRVHFPVAGSYRWPNTGLCFVMREAVTV
EIEFCVWDQFLGEINPQHSWMVAGPLLDIKAEPGAVEAVHLPHFVALQGGHVDTSLSFQMAHFKEEGMLLEKPARV
ELHHIVLENPSFSPLGVLLKMIHNALRFIPVTSVVLLYHRVHPEEVTFHLYLIPSDCSIRKELELCYRSPGEDQL
FSEFYVGHLGSGIRLQVKDKKDETLVWEALVKPGDLMPATTLIPPARIAVPSPLDAPQLLHFVDQYREQLIARVT
SVEVVLDKLHGQVLSQEYQYERVLAENTRPSQMRKLFSLSQSWDRKCKDGLYQALKETHPHLIMELWEKSGSKGLL
PLSS

FIGURE 764

FIGURE 764

AACGTTTCCTGACACAAGTAGTATGGCCATTTCGAAGAAATGGGCATGTGTGTAGAAACAGACATGGAGCTCTTAGT
 GTGCACITTTCTGCATTAAATTCAGCCGCCACGTGAAGAAAGCTTCAGCTGATTGAGGGCAGGCAGCACAGATCAAC
 ATGGAGCCCCACCATGGTAGTCCTGTTTCAGGTGGGTCCCAGTCACAGATGCCTATTGGCAGATTCTCTTCTCCGT
 CCTCAAGGTCACCAGAAACCTGAAGGAGCTGGACCTAAGTGGAACTCGCTGAGCCACTCTGCAGTGAAGAGTCT
 TTGTAAGACCCTGAGACGCCCTCGCTGCCTCCTGGAGACCCTGCGGTTGGCTGGCTGTGGCCTCACAGCTGAGGA
 CTGCAAGGACCTTGCCCTTTGGGCTGAGAGCCAACCAGACCCTGACCGAGCTGGACCTGAGCTTCAATGTGCTCAC
 GGATGCTGGAGCCAAACACCTTTGCCAGAGACTGAGACAGCCGAGCTGCAAGCTACAGCGACTGCAGCTGGTCAG
 CTGTGGCCTCACGTCTGACTGCTGCCAGGACCTGGCCTCTGTGCTTAGTGCCAGCCCCACCTGAAGGAGCTAGAC
 CTGCAGCAGAACAACCTGGATGACGTTGCGGTGCGACTGCTCTGTGAGGGGCTCAGGCATCCTGCCTGCAAACCTC
 ATACGCCTGGGGCTGGACCAGACAACCTCTGAGTGATGAGATGAGGCGAGGAACCTGAGGGCCCTGGAGCAGGAGAAA
 CCTCAGCTGCTCATCTTCAGCAGACGGAAACCAAGTGTGATGACCCCTACTGAGGGCCTGGATACGGGAGAGATG
 AGTAATAGCACATCCTCACTCAAGCGGCAGAGACTCGGATCAGAGAGGGCGGCTTCCCATGTTGCTCAGGCTAAT
 CTCAAACCTCTGGACGTGAGCAAGATCTTCCCAATTGCTGAGATTGCAGGCAAGAGCCACGAGGAAAGCTCCCCA
 GAGGTAGTACCGGTGGAACCTTTGTGCGTGCCTTCTCCTGCCTCTCAAGGGGACCTGCATACGAAGCCTTTGGGG
 ACTGACGATGACTTCTGGGGCCCCACGGGGCCTGTGGCTACTGAGGTAGTTGACAAAGAAAAGAACTTGTACCGA
 GTTCACITTCCTGTAGCTGGCTCCTACCGCTGGCCCAACACGGGTCTCTGCTTTGTGATGAGAGAAGCGGTGACC
 GTTGAGATTGAATTCTGTGTGTGGGACCAGTTTCTGGGTGAGATCAACCCACAGCACAGCTGGATGGTGGCAGGG
 CCTCTGCTGGACATCAAGGCTGAGCCTGGAGCTGTGGAAGCTGTGCACCTCCCTCACTTTGTGGCTCTCCAAGGG
 GGCCATGTGGACACATCCCTGTTCCAAATGGCCCACTTTAAAGAGGAGGGGATGCTCCTGGAGAAGCCAGCCAGG
 GTGGAGCTGCATCACATAGTTCTGGAAAACCCAGCTTCTCCCCCTTGGGAGTCCTCCTGAAAATGATCCATAAT
 GCCCTGCGCTTCATTCCCGTCACCTCTGTGGTGTGTGCTTTACCACCGCGTCCATCCTGAGGAAGTCACCTTCCAC
 CTCTACCTGATCCCAAGTGACTGCTCCATTTCGAAGGCCATAGATGATCTAGAAATGAAATTCCAGTTTGTGCGA
 ATCCACAAGCCACCCCGCTGACCCCACTTTATATGGGCTGTGTTACACTGTGTCTGGGTCTGGTTTCAGGGATG
 CTGGAAATACTCCCCAAGGAACTGGAGCTCTGCTATCGAAGCCCTGGAGAAGACCAGCTGTTCTCGGAGTTCTAC
 GTTGGCCACTTGGGATCAGGGATCAGGCTGCAAGTGAAAGACAAGAAAGATGAGACTCTGGTGTGGGAGGCCTTG
 GTGAAACCAGGAAGGAACACCAGCCAGCCGTGGAACCTCAGGTGCAACAGAGACGCCAGGAGATACTAGTGCCCA
 GCAGCCTGCGGCAGTACCAATGAAGCCAGAGAGGGCTTGGTGGATGACAAGGAGGCCTGAGTAGACCGCAGGTGG
 GTCTGAGAAATGGGCTTAGGTGAGGCAGGTCTTTGAAGGATTTGTTCTTAATCATATGCGAGATGCTCAAAAGGC
 TGGATGCCTGCTTTTGTGGGTGAAGAGCAAGAAGAGAAAAACAGGTTGTACACATACAGATGCAGATGGAGAGACA
 GAGAAAAAAAAGGAAGAAGGCAGAGAAATGCACCAATTCTTGAGCTGTATTATCTCTGGACCTTGGGATTGTGGG
 AGGCTTTATTTTACTACTGATTTTGCCTACACTGTTTTCTCAATTTCTAGTTTTCTACAAAGATGATGTGTTAGC
 TTTTTACGCAAAAAGATTAAATTTAAAAAAAAAAAAAAAAAAAAA

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FIGURE 765

MRQELRALEQEKPQLLIFSRRKPSVMTPTTEGLDTGEMSNSTSSLKRQRLGSEARAASHVAQANLKLLDVSKIFPIA
EIAGKSHEESSPEVVPVELLCVPSPASQGD LHTKPLGTDDDFWGPTGVPVATEVVDKEKNLYRVHFPVAGSYRWP
TGLCFVMREAVTVEIEFCVWDQFLGEINPQHSWMVAGPLLDIKAEPGAVEAVHLPHFVALQGGHVDTSLFQMAHF
KEEGMLLEKPARVELHHIVLENPSFSPLGVLLKMIHNALRFIPVTSVLLYHRVHPPEEVTFHLYLIPSDCSIRKA
IDDLEMKFQFVRIHKPPPLIPLYMGCRTVSGSGSGMLEILPKELELCYRSPGEDQLFSEFYVGHLGSGIRLQVK
DKKDETLVWEALVKPGRNTSQPWNLCNRDARRY

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FIGURE 766

GAATTCCCAAACGTGCACAGGGGAGTGAGGGCAGGGCGCTCGCAGGGGGCACGCAGGGAGGGCCCAGGGCGCCAG
GGAGGCCGCGCCGGGCTAATCCGAAGGGGCTGCGAGGTCAGGCTGTAACCGGGTCAATGTGTGGAATATTGGGGG
GCTCGGCTGCAGACTTGGCCAAATGGACGGGACTATTAAGGAGGCTCTGTCGGTGGTGAGCGACGACCAGTCCCT
CTTTGACTCAGCGTACGGAGCGGCAGCCATCTCCCCAAGGCCGACATGACTGCCTCGGGGAGTCTGACTACGG
GCAGCCCCACAAGATCAACCCCTCCCACCACAGCAGGAGTGGATCAATCAGCCAGTGAGGGTCAACGTCAAGCG
GGAGTATGACCACATGAATGGATCCAGGGAGTCTCCGGTGGACTGCAGCGTTAGCAAATGCAGCAAGCTGGTGGG
CGGAGGCGAGTCCAACCCCATGAACTACAACAGCTATATGGACGAGAAGAATGGCCCCCTCCTCCCAACATGAC
CACCAACGAGAGGAGAGTATCGTCCCCGCAGACCCACACTGTGGACACAGGAGCATGTGAGGCAATGGCTGGA
GTGGGCCATAAAGGAGTACAGCTTGATGGAGATCGACACATCCTTTTTCCAGAACATGGATGGCAAGGAACGTG
TAAAATGAACAAGGAGGACTTCTCCGCGCCACCACCTCTACAACACGGAAGTGCTGTTGTACACCTCAGTTA
CCTCAGGGAAAGTTCACTGCTGGCCTATAATACAACCTCCCACACCGACCAATCCTCACGATTGAGTGTCAAAGA
AGACCTTCTTATGACTCAGTCAGAAGAGGAGCTTGGGGCAATAACATGAATTCTGGCCTCAACAAAAGTCTCC
CCTTGAGGGGCACAAACGATCAGTAAGAATACAGAGCAACGGCCCCAGCCAGATCCGTATCAGATCCTGGGCCC
GACCAGCAGTCGCCTAGCCAACCTGGAAGCGGGCAGATCCAGCTGTGGCAATTCCTCCTGGAGCTGCTCTCCGA
CAGCGCCAACGCCAGCTGTATCACCTGGGAGGGGACCAACGGGGAGTTCAAATGACGGACCCCGATGAGGTGGC
CAGGCGCTGGGGCGAGCGGAAAAGCAAGCCCAACATGAATTACGACAAGCTGAGCCGGGCCCTCCGTTATTACTA
TGATAAAAACATTATGACCAAAGTGCACGGCAAAAGATATGCTTACAAATTTGACTTCCACGGCATTGCCAGGC
TCTGCAGCCACATCCGACCGAGTCTCCATGTACAAGTACCCTTCTGACATCTCCTACATGCCTTCCTACCATGC
CCACCAGCAGAAGGTGAACTTTGTCCCTCCCCATCCATCCTCCATGCCTGTCACTTCTCCAGCTTCTTTGGAGC
CGCATCACAATACTGGACCTCCCCACGGGGGAATCTACCCCAACCCCAACGTCCCCGCCATCCTAACACCCA
CGTGCTTCACACTTAGGCAGCTACTACTAGAGCTTCTTCTAGCTGAAGCCCATCCTGCACACTTACTGGATGC
TTTGGACTCAACAGGACATATGTGGCCTTGAAGGGAAGACAAAACCTGGATGTTCTTTCTTGTGGATAGAACCTT
TGTATTTGTTCTTTAAAAACATTTTTTTTAAATGTTGGTAACTTTTGCTTCCTCTACCTGAACAAAGAGATGAATA
ATTCCATGGGGCAGTATGCCAGTTTGAATTCTCAGTCTCCTAGCATCTTGTGAGTTGCATATTAAGATTACTGGA
ATGGTTAAGTCATGGTTCTGAGAAAGAAGCTGTACGTTTTCTTTATGTTTTTATGACCAAAGCAGTTTCTTGTC
ATACACGGGGTTTCACTATGACACAGAATCATGGACTTAACCCGTCATGTTCTGGTTTGAGATTTAGTGACAAATA
GAGGTGGGAAGCTTATAATCTAATTTTAGGAGGACCAAAATTCAGCGGATGGCAACTGGAACATTGATTGTAAGGC
CAGTGAAGTTTTACCCAACTGGAATTTGATGGAAGAAGGTTTGTGTGTTTAAGACGCCAAGGGCATTGCAGAA
TCCCTCTCAGTGGACAGTATGCACTCAGCTGACCCTCTCTCTAGAAATAGTCAAGATATGAACAAAGAAATTTT
AATGCAAATACATACATTCTGAAAGACGGGGAATTAAATTTACTAATTTTTTTTTTTTTTAAATGATGACAGTGGTC
CCAGAACTTGAAAAGTTGTAGGGATTTCTAAACTCAAGCAGATTTCGCAAGTGCTGTGCGCTTGTGACACCATCA
GACCAGGGCCAACCAATCAGAAGGCAACTTACTGTATAAATTATGCAGAGTTATTTTCTTATATCTCAGATATT
AAAAAATAAATAATTAAAAATTAAGAATAAATAAACGAGTTGACCTCGGTCACAAAAGCAGTTTTACTATCGAAT
CAATCGCTGTTATTTTTTTTTTAAATGTAATTTGTACATCTTTTTTCAATCTGTACATTTGGGCTGTCTTGATGTT
TTTATGCTCCTTTTTTAAAGCATAATATGCCTATAGCTGAAAAGGAAACAGGGCTGTTTAAGTCACTGACTTAT
GAGAAAGCAAAGCACTGGTACAGTTATTTAACAGGCATACACAAGCAGGGAAGATAATCCATTTAGATCTTTA
ATGCTTTGGAAATGCGTGTAACAGTACTGCAATAATCACAGCTCTGGGAAAAACAACGAACTTTCCCTTGTTGA
GAGGAGGGATTTTCTGCTCTATATAAGCAACATATTTTGTAGACATTAAATATATATAATTTTGCAGGTAATTG
TTGACTTTTTTAACTATATTAAGTGTTAAGCTGACAACGTGTCAAAGAAGACCATGTTGTAAATAATTTGACTAA
ATAAATGGTTCCTTCTCTCAAAAAAAAAAAAAA

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FIGURE 767

MDGTIKEALS VVSDQSLFDSAYGAAHLPKADMTASGSPDYGQPHKINFLPPQQEWINQPV RVNVKREYDHMNG
SRESPVDCSVSKCSKLVGGGESNPMNYNSYMDEKNGPPPNMTTNERRVIVPADPTLWTQEHVRQWLEWAIKEYS
LMEIDTSFFQNM DGKELCKMNKEDFLRATTLYNTEVLLSHLSYLRESSLLAYNTTSHTDQSSRLSVKEDPSYDSV
RRGAWGNMNSGLNKSPPLGGAQTISKNTEQRPQDPYQILGPTSSRLANPGSGQIQLWQFLLELLSDSANASCI
TWEGTNGEEKMTDPDEVARRWGERKSKPNMNYDKLSRALRYYYDKNIMTKVHGKRYAYKFDFHGIAQALQPHPTE
SSMYKYPSDISYMP SYHAHQKVN FVPPHPSSMPVTSSSFFGAASQYWTSP TGGIYPNP NVPRHPNTHVPSHLGS
YY

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FIGURE 768

GTTTGTGGCTGCGGCAGCAGGTAGCAAAGTGACGCCGAGGGCCTGAGTGCTCCAGTAGCCACCGCATCTGGAGA
 ACCAGCGGTTACCA**ATG**GAGGGGATCAGTATATACACTTCAGATAACTACACCGAGGAAATGGGCTCAGGGGACTA
 TGACTCCATGAAGGAACCCGTGTTCCGTGAAGAAAATGCTAATTTCAATAAAATCTTCCTGCCCACCATCTACTC
 CATCATCTTCTTAACTGGCATTGTGGGCAATGGATTGGTCATCCTGGTCATGGGTTACCAGAAGAACTGAGAAG
 CATGACGGACAAGTACAGGCTGCACCTGTCTAGTGGCCGACCTCCTCTTTGTCATCACGCTTCCCTTCTGGGCAGT
 TGATGCCGTGGCAAAC**T**GGTACTTTGGGAACCTTCCTATGCAAGGCAGTCCATGTCTACACAGTCAACCTCTA
 CAGCAGTGTCTCATCCTGGCCTTCATCAGTCTGGACCGCTACCTGGCCATCGTCCACGCCACCAACAGTCAGAG
 GCCAAGGAAGCTGTTGGCTGAAAAGGTGGTCTATGTTGGCGTCTGGATCCCTGCCCTCCTGCTGACTATTCCCGA
 CTTTCATCTTTGCCAACGTCAGTGAGGCAGATGACAGATATATCTGTGACCGCTTCTACCCCAATGACTTGTGGGT
 GGTGTGTTCAGTTTCAGCACATCATGGTTGGCCTTATCCTGCCTGGTATTGTCATCCTGTCTGCTATTGCAT
 TATCATCTCCAAGCTGTCACACTCCAAGGGCCACCAGAAGCGCAAGGCCCTCAAGACCACAGTCATCCTCATCCT
 GGCTTTCTTCGCCGTGTTGGCTGCCTTACTACATTGGGATCAGCATCGACTCCTTCATCCTCCTGGAAATCATCAA
 GCAAGGGTGTGAGTTTGAGAACACTGTGCACAAGTGGATTTCATCACCGAGGCCCTAGCTTTCTTCCACTGTTG
 TCTGAACCCCATCCTCTATGCTTTCCCTGGAGCCAAATTTAAACCTCTGCCCAGCACGCACTCACCTCTGTGAG
 CAGAGGGTCCAGCCTCAAGATCCTCTCCAAAGGAAAGCGAGGTGGACATTCATCTGTTTCCACTGAGTCTGAGTC
 TTCAAGTTTTCACTCCAGCT**TAA**CACAGATGTAAAAGACTTTTTTTTATACGATAAAATACTTTTTTTTAAGTTAC
 ACATTTTTTCAGATATAAAAGACTGACCAATATTGTACAGTTTTTTATTGCTTGTGGATTTTTGTCTTGTGTTTCT
 TTAGTTTTTGTGAAGTTTAATTGACTTATTTATATAAATTTTTTTTGTTCATATTGATGTGTGTCTAGGCAGGA
 CCTGTGGCCAAGTTCTTAGTTGCTGTATGTCTCGTGGTAGGACTGTAGAAAAGGGAAGTGAACATTCCAGAGCGT
 GTAGTGAATCACGTAAAGCTAGAAATGATCCCCAGCTGTTTATGCATAGATAATCTCTCCATTCCCGTGGAACGT
 TTTTCCTGTTCTTAAGACGTGATTTTGCTGTAGAAGATGGCACTTATAACCAAAGCCCAAAGTGGTATAGAAATG
 CTGGTTTTTCAGTTTTTCAGGAGTGGGTTGATTTTCAGCACCTACAGTGTACAGTCTTGTATTAAGTTGTTAATAAA
 AGTACATGTTAACTTACTTAGTGTTATG

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FIGURE 769

MEGISIYTSDNYTEEMGSGDYDSMKEPCFREENANFNKIFLPTIYSIIFLTGIVGNGLVILVMGYQKKLRSMTDK
YRLHLSVADLLFVITLPFWAVDAVANWYFGNFLCKAVHVIYTVNLYSSVLILAFISLDRYLAIVHATNSQRPRKL
LAEKVVYVGVWIPALLLTIPDFIFANVSEADDRYICDRFYPNDLWVVVFQFQHIMVGLILPGIVILSCYCIISK
LSHSGHQKRKALKTTVILILAFFACWLPYYIGISIDSFILLEIIKQCEFENTVHKWISITEALAFFHCCLNPI
LYAFLGAKFKTSAQHALTSVSRGSSLKILSKGRGGHSSVSTESESSSFHSS

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FIGURE 770

TGCCTGCTGAGGGTGGAGACCCACGAGCCGAGGCCTCCTGCAGTGTTCTGCACAGCAAACCGCACGCT**ATG**GCTG
ACAGCCGGGATCCCCGCCAGCGACCAGATGCAGCACTGGAAGGAGCAGCGGGCCGCGCAGAAAGCTGATGTCCTGA
CCACTGGAGCTGGTAACCCAGTAGGAGACAACTTAATGTTATTACAGTAGGGCCCCGTGGGCCCTTCTTGTTT
AGGATGTGGTTTTCTACTGATGAAATGGCTCATTTTTGACCGAGAGAGAATTCCTGAGAGAGTTGTGCATGCTAAAG
GAGCAGGGGCCCTTTGGCTACTTTGAGGTACACATGACATTACCAAATACTCCAAGGCAAAGGTATTTGAGCATA
TTGGAAAGAAGACTCCCATCGCAGTTTCGGTTCTCCACTGTTGCTGGAGAATCGGGTTCAGCTGACACAGTTTCGGG
ACCCCTCGTGGGTTTGCAGTGAAATTTTACACAGAAGATGGTAAGTGGGATCTCGTTGGAAATAACACCCCCATTT
TCTTCATCAGGGATCCCATATTGTTTCCATCTTTTATCCACAGCCAAAAGAGAAATCCTCAGACACATCTGAAGG
ATCCGGACATGGTCTGGGACTTCTGGAGCCTACGTCTGAGTCTCTGCATCAGGTTTCTTTCTTGTTTCAGTGATC
GGGGGATTCCAGATGGACATCGCCACATGAATGGATATGGATCACATACTTTCAAGCTGGTTAATGCAAATGGGG
AGGCAGTTTATTGCAAATTCATTATAAGACTGACCAGGGCATCAAAAACCTTTCTGTTGAAGATGCGGCGAGAC
TTTCCCAGGAAGATCCTGACTATGGCATCCGGGATCTTTTAAACGCCATTGCCACAGGAAAGTACCCCTCCTGGA
CTTTTTACATCCAGGTCATGACATTTAATCAGGCAGAAACTTTTCCATTTAATCCATTTCGATCTCACCAAGGTTT
GGCTCACAAGGACTACCCTCTCATCCAGTTGGTAAACTGGTCTTAAACCGGAATCCAGTTAATTACTTTTGCTG
AGGTTGAACAGATAGCCTTCGACCCAAGCAACATGCCACCTGGCATTGAGGCCAGTCTGACAAAATGCTTCAGG
GCCGCCCTTTTGCCTATCCTGACACTCACCGCCATCGCCTGGGACCCAATTATCTTCATATACCTGTGAAGTGT
CCTACCGTGCTCGAGTGGCCAACCTACCAGCGTGATGGCCCGATGTGCATGCAGGACAATCAGGGTGGTGCTCCAA
ATTACTACCCCAACAGCTTTGGTGCTCCGGAACAACAGCCTTCTGCCCTGGAGCACAGCATCCAATATTCTGGAG
AAGTGCGGAGATTCAACACTGCCAATGATGATAACGTTACTCAGGTGCGGGCATTCTATGTGAACGTGCTGAATG
AGGAACAGAGGAAACGTCTGTGTGAGAACATTGCCGGCCACCTGAAGGATGCACAAATTTTCATCCAGAAGAAAG
CGGTCAAGAACTTCACTGAGGTCCACCCTGACTACGGGAGCCACATCCAGGCTCTTCTGGACAAGTACAATGCTG
AGAAGCCTAAGAATGCGATTACACCTTTGTGCAGTCCGGATCTCACTTGGCGGCAAGGGAGAAGGCAAATCTGT
GAGGCCGGGGCCCTGCACCTGTGCAGCGAAGCTTAGCGTTTCATCCGTGTAACCCGCTCATCACTGGATGAAGATT
CTCCTGTGCTAGATGTGCAATGCAAGCTAGTGGCTTCAAAATAGAGAATCCCACTTTCTATAGCAGATTGTGTA
ACAATTTTAATGCTATTTCCCCAGGGGAAAATGAAGGTTAGGATTTAACAGTCATTTAAAAAAAATTTGTTTT
GACGGATGATTGGATTATTCATTTAAAATGATTAGAAGGCAAGTTTCTAGCTAGAAATATGATTTTATTTGACAA
AATTTGTTGAAATTATGTATGTTTACATATCACCTCATGGCCTATTATATTAAAATATGGCTATAAATATATAAA
AAGAAAAGATAAAGATGATCTACTCAGAAATTTTTATTTTCTAAGGTTCTCATAGGAAAAGTACATTTAATACA
GCAGTGTGCATCAGAAGATAACTTGAGCACCGTCATGGCTTAATGTTTATTCCTGATAATAATTGATCAAATTCAT
TTTTTTCCTGAGGTTACATTAATGTTAATTCAGCACTGATTTCAACACAGATCAATTTGTAATTGCTTACATTT
TTACAATAAATAATCTGTACGTAAGAACA

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FIGURE 771

MADSRDPASDQMQRHWKEQRAAQKADVLTGAGNPVGDKLNVI TVGPRGPLLVDVFTDEMAHFDRERIPERVVH
AKGAGAFGYFEVTHDITKYSKAKVFEHIGKKTPIAVRFSTVAGESGSADTVRDPRGFAVKFYTEDGNWDLVGNNT
PIFFIRDPILFPSFIHSQKRNPQTHLKDPDMVWDFWSLRPESLHQVSFLFSDRGIPDGHRHMNGYGSHTFKLVNA
NGEAVYCKFHYKTDQGIKNLSVEDAARLSQEDPDYGIRDLFNATGKYPSTFYIQVMTFNQAETFPFNPFDLT
KVWPHKDYPLIPVGKLVNLRNPVNYFAEVEQIAFDPSNMPPGIEASPDKMLQGRLFAYPDTHRHRLGPNYLHIPV
NCPYRARVANYQRDGPMMQDNQGGAPNYYPNSFGAPEQQPSALEHSIQYSGEVRRFNTANDDNVTQVRAFYNV
LNEEQRKRLCENIAGHLKDAQIFIQKKAVKNFTEVHPDYGSHIQALLDKYNAEKPKNAIHTFVQSGSHLAAREKA
NL

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FIGURE 772A

ACAGCACAGACAGATTGACCTATTGGGGTGTTTTCGCGAGTGTGAGAGGGAAGCGCCGCGGCCTGTATTTCTAGAC
CTGCCCTTCGCTGGTTCGTGGCGCCTTGTGACCCCGGGCCCTGCCGCTGCAAGTCGGAAATTGCGCTGTGCT
CCTGTGCTACGGCCTGTGGCTGGACTGCCTGCTGCTGCCAACTGGCTGGCAAGATGAAGCTCTCCCTGGTGGCC
GCGATGCTGCTGCTGCTCAGCGCGGCGCGGGCCGAGGAGGAGGACAAGAAGGAGGACGTGGGCACGGTGGTCGGC
ATCGACCTGGGGACCACCTACTCCTGCGTCGGCGTGTTCAAGAACGGCCGCGTGGAGATCATCGCCAACGATCAG
GGCAACCGCATCACGCCGTCTATGTGCGCTTCACTCCTGAAGGGGAACGTCTGATTGGCGATGCCGCCAAGAAC
CAGCTCACCTCCAACCCCGAGAACACGGTCTTTGACGCCAAGCGGCTCATCGGCCGACGTGGAATGACCCGTCT
GTGCAGCAGGACATCAAGTTCTTGCCGTTCAAGGTGGTTGAAAAGAAAATAAACCATACATTCAAGTTGATATT
GGAGGTGGGCAAACAAAGACATTTGCTCCTGAAGAAATTTCTGCCATGGTTCTCACTAAAATGAAAGAAACCGCT
GAGGCTTATTTGGGAAAGAAGGTTACCCATGCAGTTGTTACTGTACCAGCCTATTTTAAATGATGCCCAACGCCAA
GCAACCAAAGACGCTGGAACATTTGCTGGCCTAAATGTTATGAGGATCATCAACGAGCCTACGGCAGCTGCTATT
GCTTATGGCCTGGATAAGAGGGAGGGGGAGAAGAACATCCTGGTGTGTTGACCTGGGTGGCGGAACCTTCGATGTG
TCTCTTCTCACCATTGACAATGGTGTCTTCGAAGTTGTGGCCACTAATGGAGATACTCATCTGGGTGGAGAAGAC
TTTGACCAGCGTGTCTATGGAACACTTCATCAAACGTGACAAAAAGAACGGGCAAAGATGTCAGGAAAGACAAT
AGAGCTGTGCAGAACTCCGGCGCGAGGTAGAAAAGGCCAAACGGGCCCTGTCTTCTCAGCATCAAGCAAGAATT
GAAATTGAGTCCTTCTATGAAGGAGAAGACTTTTCTGAGACCCTGACTCGGGCCAAATTTGAAGAGCTCAACATG
GATCTGTTCCGGTCTACTATGAAGCCCCTCCAGAAAGTGTGGAAGATTCTGATTTGAAGAAGTCTGATATTGAT
GAAATTGTTCTTGTGGTGGCTCGACTCGAATTCCAAAGATTGAGCAACTGGTTAAAGAGTTCTTCAATGGCAAG
GAACCATCCCGTGGCATAAACCCAGATGAAGCTGTAGCGTATGGTGTGCTGTCCAGGCTGGTGTGCTCTCTGGT
GATCAAGATACAGGTGACCTGGTACTGCTTGATGTATGTCCCTTACACTTGGTATTGAACTGTGGGAGGTGTC
ATGACCAAACGTATTCCAAGGAACACAGTGGTGCCTACCAAGAAGTCTCAGATCTTTTCTACAGCTTCTGATAAT
CAACCAACTGTTACAATCAAGGTCTATGAAGGTGAAAGACCCCTGACAAAAGACAATCATCTTCTGGGTACATTT
GATCTGACTGGAATTCCTCCTGCTCCTCGTGGGGTCCACAGATTGAAGTCACCTTTGAGATAGATGTGAATGGT
ATTCTTCGAGTGACAGCTGAAGACAAGGGTACAGGGAACAAAAATAAGATCACAATCACCATGACCAGAATCGC
CTGACACCTGAAGAAATCGAAAGGATGGTTAATGATGCTGAGAAGTTGCTGAGGAAGACAAAAGCTCAAGGAG
CGCATTGATACTAGAAATGAGTTGGAAGCTATGCCTATTCTCTAAAGAATCAGATTGGAGATAAAGAAAAGCTG
GGAGGTAAACTTTCTCTGAAGATAAGGAGACCATGGA AAAAGCTGTAGAAGAAAAGATTGAATGGCTGGAAAGC
CACCAAGATGCTGACATTGAAGACTTCAAAGCTAAGAAGAAGGAACCTGGAAGAAATTGTTCAACCAATTATCAGC
AAACTCTATGGAAGTGCAGGCCCTCCCCAACTGGTGAAGAGGATACAGCAGAAAAGATGAGTTGTAGACACTG
ATCTGCTAGTGCTGTAATATTGTAATACTGGACTCAGGAACTTTTGTAGGAAAAAATTGAAAGAACTTAAGTC
TCGAATGTAATTGGAATCTTCACCTCAGAGTGGAGTTGAAACTGCTATAGCCTAAGCGGCTGTTTACTGCTTTTC
ATTAGCAGTTGCTCACATGTCTTTGGGTGGGGGGGAGAAGAAGAAATTGGCCATCTTAAAAAGCAGGTAAAAAACC
TGGGTAGGGTGTGTGTTACCTTCAAATGTTCTATTTAACTGGGTGATGTGCATCTGGTGTAGGAAGTTT
TTTCTACCATAAGTGACACCAATAAATGTTTGTATTTTACACTGGTCTAATGTTTGTGAGAAGCTTCTAATTAGA
TCAATTACTTATTTTAGGAAATTTAAGACTAGATACTCGTGTGTGGGTGAGGGGAGGAGTATTTGGTATGTTG
GGATAAGGAAACACTTCTATTTAATGCTTCCAGGGATTTTTTTTTTTTTTTTAAACCCTCCTGGGCCCAAGTGA
TCCTTCCACCTCAGTCTCCAGCTAATTGAGACCACAGGCTTGTTACCACCATGCTCGGCTTTTGCATTAATCTA
AGAAAAGGGGAGAGAAGTTAATCCACATCTTTACTCAGGCAAGGGGCATTTACAGTGCCCAAGAGTGGGGTTTT
CTTGAACATACTTGGTTTCTATTTCCCTTATCTTTCTAAACTGCCTTTCTGGTGGCTTTTTTAAATATTATT
ACTAATGATGCTTTTATAGCTGCTTGGATTCTCTGAGAAATGATGGGGAGTGAGTGATCACTGGTATTAACTTTA
TACACTTGGATTTCAATTTGTAACCTTAGGATGTAAAGGTATATTGTGAACCTAGCTGTGTGAGAATCTCCATCC
CTGAAATTTCTCATTAGTGGTACTGGGGTGGGATCTTGGATGGTGACATTGAAACTACATAAATCCCCTCACTA
TGAATGGGTGTTTAAAGGCAATGGTTTGTGTCAAACCTGGTTTAGGATTACTTAGATTGTGTTTCTGAAGAAAAG
AGTCCAGGTAAATGGTATGATCAATAAAGGACAGGCTGGTGCTAACATAAAATCCAATATTGTAATCTTAGCACT
TTGGGAGGCCAAGGCGGGTGGATCACAAGGTCAAGAGATAGAGACCATCTTTGCCAACATGGTGAAACTCCATCT
CTACTGAAAAATACAAAAATTAGCTGGGCGTGGTAGTGCAAGCTGAAGGCTGAGGCAGGAGAATCACTCGAACCCG
GGAGGCAGAGGTTGCAGTGAGCCGAGATCACACCACTGTACTCCAGCCCGGCACTCCAGCCTGGCGACAAGAGTG
AGACTCCACCTCAAAAAAAAAAAAAAGAATCCAATACTGCCCAAGGATAGGTATTTTATAGATGGGCAACTGGCT

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FIGURE 772B

GAAAGGTTAATTCTCTAGGGCTAGTAGAACTGGATCCCAACACCAAACCTCTTAATTAGACCTAGGCCTCAGCTGC
ACTGCCCCGAAAAGCATTGTTGGGCAGACCCTGAGCAGAATACTGGTCTCAGGCCAAGCCCAATACAGCCATTAAAGA
TGACCTACAGTGCTGTGTACCCTGGGGCAATAGGGTTAAATGGTAGTTAGCAACTAGGGCTAGTCTTCCCTTACC
TCAAAGGCTCTCACTACCGTGGACCACCTAGTCTGTAACCTTTCTGAGGAGCTGTTACTGAATATTAAAAAGAT
AGACTTCAAAAAAAAAAAAAAAAAAAAA

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FIGURE 773

MKLSLVAAMLLLLSAARAEEDKKEDVGTVVGIDLGTTYSCVGVFKNGRVEIIANDQGNRITPSYVAFTPEGERL
IGDAAKNQLTSNPENTVFDKRLIGRTWN DPSVQQDIKFLPFKVVEKTKPYIQVDIGGGQTKTFAPEEISAMVL
TKMKETA EAYLGKKVTHAVVTPAYFNDAQRQATKDAGTIAGLNMRIINEPTAAAIAYGLDKREGEKNILVFDL
GGGTFDVSLTIDNGVFEVVATNGDTHLGGEDFDQVRMEHFIKLYKKKTGKDVRKDNRAVQKLRREVEKAKRALS
SQHQARIEIESFYEGEDFSETLTRAKFEELNMDLFRSTMKPVQKVLEDSDLKKSDIDEIVLVGGSTRIPKIQQLV
KEFFNGKEPSRGINPDEAVAYGA AVQAGVLSGDQDTGDLVLLDVCPLTLGIETVGGVMTKLIPRNTVVPTKKSQI
FSTASDNQPTVTIKVYEGERPLTKDNHLLGTFDLTGIPPAPRGVPQIEVTFEIDVNGILRVTAEDKGTGNKNKIT
ITNDQNRLTPEEIERMVNDAEKFAEEDKKLKERIDTRNELESYAYSLKNQIGDKEKLGGKLSSDKETMEKAVEE
KIEWLESHQDADIEDFKAKKKELEEIVQPIISKLYGSAGPPPTGEEDTAEKDEL

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FIGURE 774A

TCTCACTATAGGGCTCGAGCGGCCGCCGGGCGAGGTCTGACCACAGTGGTTCCGGGGAGAAGCCTTCCAGGACCC
ATGTGTAGGCACAACCTGTTTTCCCTGATCAGGATACTTCCGGCACTCAACAGAGGAAAGAAATTCCTAAGGGAAC
ACTGCTCAGAAAGTACTGCAGCATGTCTTCAAATGCCTGAGGATCAAGTTGGAAAACCTAGAAGCAACAGAAAACA
CAATAAGCGCAATGGCGGCGGCCGCCGGGCGAGCAGCAACAGTTCTACCTGCTGCTGGGAAACCTGCTCAGCCCCG
ACAATGTGGTCCGGAACAGGCAGAGGAAACCTATGAGAATATCCCAGGCCAGTCAAAGATCACATTCTCTTAC
AAGCCATCAGAAATACAACAGCTGCTGAAGAGGCTAGACAAATGGCCGCCGTTCTCCTAAGACGTCTCTTGTCTCT
CTGCATTTGATGAAGTCTATCCAGCACTTCCCTCTGATGTTTCAGACTGCCATCAAGAGTGAGCTACTCATGATTA
TTCAGATGGAAACACAATCTAGCATGAGGAAAAAGTTTGTGATATTGCGGCAGAACTGGCCAGGAATTTAATAG
ATGAGGATGGCAATAACCAGTGGCCCGAAGGTTTGAAGTTCCCTTTTGTATTAGTCAGCTCTCAAAATGTGGGAC
TGCGGGAAGCTGCCCTTCACATTTTCTGGAACCTTCTGGAATTTTGGGAACCAGCAACAACACTATTTAGATG
TCATCAAAACGAATGTTAGTTCAGTGTATGCAAGATCAGGAACACCCGTCGATCAGGACGTTATCTGCTAGAGCTA
CAGCTGCATTTATACTTGCAAATGAGCATAATGTTGCTCTGTTCAAACATTTTGCAGACTTGCTACCGGGATTCC
TACAGGCGGTAAATGACTCGTGCTACCCAGAATGATGATTCTGTCTTAAATCCCTCGTTGAGATTGCAGATACTG
TTCCAAAGTATTTGCGTCTCTCACTTGGGAAGCAACTCTACAGCTAAGTCTAAAGTTGTGTGGAGACACTAGCCTCA
ACAATATGCAACGCCAGCTTGCCCTTGAAGTGATCGTCAACCTCTCTGAGACTGCAGCTGCTATGTTAAGAAAAAC
ATACCAATATTGTTGCACAGACTATTCTCAGATGTTAGCAATGATGGTTGATTGGAAGAAGATGAGGACTGGG
CAAATGCAGATGAAGTAGAAGATGATGATTTTGACAGCAATGCAGTTGCAGGCGAGAGTGCTCTAGATCGAATGG
CTTGCGGACTTGGTGGAAAGCTCGTTCTGCCGATGATCAAGGAACACATTATGCAAATGCTTCAAAATCCTGACT
GGAAATACCGGCATGCAGGATTGATGGCCTTATCTGCCATTTGGTGAAGGTTGCCACCAGCAATGGAAGGAATTC
TAAATGAGATCGTAAATTTGTTTTACTTTTTCTCCAGGATCCTCATCCAAGAGTAAGGTATGCAGCCTGTAATG
CCGTGGGACAGATGGCTACAGATTTTGACCTGGTTTCCAAAAGAAATTTTCATGAGAAGGTGATTGCAGCTCTGC
TGCAGACCATGGAAGACCAAGGCAATCAACGTGTGCAGGCCCATGCAGCTGCTGCCCTCATTAACTTTACTGAAG
ACTGTCCCAAGTCACTACTTATTCCATACTTGATAATTTGGTGAACATCTGCATTCCATTATGGTACTGAAGC
TTCAAGAGCTGATTAGAAAGGCACCAAGTTAGTTTGGAAACAAGTTGTGACATCCATTGCATCAGTTGCCGATA
CTGCAGAAGAAAAATTTGTCCCTACTATGATTTATTTATGCCATCACTGAAGCACATCGTTGAGAATGCGGTTTC
AAAAAGAACTGAGACTTCTGAGAGGAAAAACTATTGAATGCATTAGCCTCATTGGTCTGGCTGTTGGGAAGGAAA
AATTCATGCAGGATGCATCAGATGTGATGCAGCTTTTGTAAAGACCCAGACAGACTTCAATGATATGGAAGATG
ATGATCCTCAGATCTCTTACATGATCTCAGCATGGGCCAGAAATGTGCAAAATCCTTGGAAAAGAATTTAGCAAT
ACCTTCCAGTGGTTATGGGGCCTTTAATGAAGACGGCTTCAATTAAGCCCGAAGTAGCCCTTTTAGATACCCAAG
ACATGGAGAATATGAGTGATGATGATGTTGGGAATTTGTGAACCTTGGAGATCAGCAAAGCTTTGGTATTAAAA
CTGCAGGACTAGAAGAAAAATCAACTGCTTGCCAGATGTTGGTTTGCTATGCTAAGGAGTTAAAGGAAGGCTTTG
TGGAGTACACCGAACAGGTTGTCAAACCTGATGGTCCCTTTACTGAAATTTTATTCCACGATGGTGTTCGAGTGG
CAGCAGCGGAATCCATGCCTCTTCTCCTGGAGTGTGCAAGAGTCCGTGGTCTGAGTATCTCACACAGATGTGGC
ATTTTATGTGTGATGCTCTAATTAAGGCCATTGGTACAGAACCAGATTTCAGACGTCCTCTCAGAAATAATGCATT
CTTTTGCAAAGTGCAATTGAAGTAATGGGAGATGGATGCCTTAATAATGAACACTTTGAAGAAGTGGGAGGTATAT
TGAAAGCAAAGCTTGAAGAACATTTAAAAATCAAGAATTACGACAAGTTAAAGACAAGATGAAGACTATGATG
AACAGGTGCAAGAGTCACTACAAGATGAGGATGATAATGATGTTTATATTCTGACCAAAGTGTGAGATATTTTAC
ACTCAATATTAGTAGCTACAAAGAAAAGGTGTTACCATGGTTTGAACAGCTGCTTCCATTAATTGTCAACCTCA
TTTGTCACATAGACCATGGCCAGACAGACAATGGGGATTATGCATCTTTGATGATGTGATAGAACACTGTAGTC
CAGCCTCATTTAAATACGCAGAAATATTTCTTAAGACCAATGCTCCAATATGTATGTGACAACAGCCCAGAAGTCA
GGCAAGCAGCTGCATATGGCCTGGGAGTCATGGCACAGTACGGTGGAGATAATTATCGCCCTTTTGTACAGAAG
CACTTCCCTGCTGGTAAGAGTTATTAGTCTGCGGATTTAAGACCAAAGAAAATGTCAATGCTACAGAGAAGT
GCATCTCAGCAGTAGGGAAAATCATGAAGTTCAAGCCTGACTGTGTAAACGTTGAAGAGGTCCTTCCACACTGGT
TGTCTTGGCTTCCACTACATGAAGATAAAGAAGAAGCTGTTTCAGACTTTCAATTATCTGTGTGACCTGATTGAAA
GTAATCATCCAATTGTTCTTGGCCCAAACAATACCAATCTGCCCAAATATTTAGTATAATTGCGGAAGGAGAAA
TGCACGAGGCAATTAAACATGAAGATCCTTGTGCCAAACGTCTGGCCAATGTCGTTGCGCAAGTACAGACTTCTG
GAGGACTGTGGACTGAGTGCATAGCACAGCTCAGTCTGAGCAGCAGGCCGCCATTTCAGGAGCTCCTGAACTCTG
CGTGAAGGGCCTTAATGTCACCCACCAGAAAACCTAACTCCAATAAACGCTTACCCTTTTCTTTAGGTTTCTTTG

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FIGURE 774B

TTTTGTTTTTGAGCAAAGAGATCGGTAGTGTTGTGTGTAGGCCATTCTTCTGGAGAGCCACAAGCAGGAAGAGC
AGCGCTGTGTTGCAGAAATGGAGTTTCCATGGATTTCTACCAGACCACTGAAGGAGTTCCTGGAAGCCCTGCGTAC
GTAGCACTGAAGACTATTTTTCTATTGGTATAACCCGCCACCTGAAGGGGAAAGGGAAATCAAATTAATTTTTTC
TCGTTAGACATAAGGAAATTTAAGGAAAAACAGCTTTAAGAACAGTTACTCAGCGTAGATGTGTGTTACACAAA
TTGCCTTGCAATTCAGTGTTCAATTGTGAATTGGGAGTGTGAGTCTTCTGTAGGGTACAAAGAAGCCTCCTACCCA
GCAAACCAGTAGACCCAAAAGTTGAAAAAACTGGATGACAGACAACAAGCATGAAGATGGCATATTTGATGTCA
CTTTGGTTCTTTTTCCCAGAAGGCTTATACAGTGA CTGAGTCGGGAAGCTTTCAGCTTCAGCCCTTGAATGTGA
AGTGTCAATTGGCATGTCTGGCAGTAGTCTCTCATTCACTCCCAATAACAACATTGAATACAAAAGAGGCTTGTG
TAAAACTCAGTACTGTCTGGCTTGGATTCAATTCATGTTTTTTAATATAAGAATGATCTAATATTTTTTTAAAG
TAATAGCTATCAGTAATAGCTGAGTGTTTTTCCCCTAATATTTTCCTTGTGCAATTCAGACTTAAGCATCGAGT
TTTTACCATCTTCCACTTTAAGCTAAGTTATGATACCTATTCATTACAAATTGGTGTTCTTTTTAAGGTTTGCA
AATTCAGCCAATTTGTAGCTAAGATTGTTCTGATCAGCTCAAAAAGATTTGGCTTAGTGTTTTCAATGCAAT
TATAATTGCTGTAGAGCCACACACAACCTTTTGAACTTTAAATTATAAGTGTTATGGCTAAAGTTATTTACTGAAA
ATTCAGTAAAATGTGTGAATGTTTCTTTATGTATTAACCTCATAGCAGTAAATGACTTGCTGTTGTTAATTTT
TCTAAGGCATCTTAATAGACTTCTCTTGAAAAACCTTTCCAAGGTGTTAACATTTTTATAGTTTGTACTAAATT
TAACCGTGATATAAAAATGAATTTTATGCATAGATCAGAATTTTAAATTAAAGGTTTTTTCTTTAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 775

MAAAAAEQQQFYLLLGNLLSPDNVVRKQAEETYENIPGQSKITFLLQAIRNTTAAEEARQMAAVLLRRLSSAFD
EVYPALPSDVQTAIKSELLMI IQMETQSSMRKKVCDIAAELARNLIDEDGNNQWPEGLKFLFDSVSSQNVGLREA
ALHIFWNFPGIFGNQQQHYLDVIKRMLVQCMQDQEHPSIRTLSARATAAFILANEHNVALFKHFADLLPGFLQAV
NDSCYQNDSDVLKSLVEIADTVPKYLRPHLEATLQLSLKLCGDTSLNNMQRLALEVIVTLSETAAAMLRKHTNI
VAQTIPQMLAMMVDLEEDWDANADELEDDDFDSNAVAGESALDRMACGLGGKLVLPMIKEHIMQLQNPDWKYR
HAGLMALSAIGEGCHQQMEGILNEIVNFVLLFLQDPHPRVRYAACNAVGMATDFAPGFQKKFHEKVIAALLQTM
EDQGNQRVQAHAAAALINFTEDCPKSLLIPYLDNLVKHLHSIMVLKLQELIQKGTKLVLEQVVTSIASVADTAAE
KFVPPYYDLFMPSLKHIVENAVQKELRLLRGKTIECISLIGLAVGKEKFMQDASDVMQLLLKTQTDNDMEDDDPQ
ISYMISAWARMCKILGKEFQQYLPVVMGPLMKTASIKPEVALLDTDQDMENMSDDDGWEFVNLGDQQSFGIKTAGL
EEKSTACQMLVCYAKELKEGFVEYTEQVVKLMVPLLKFYFHDGVRVAAAESMPLLECARVRGPEYLTQMWHFMC
DALIKAIGTEPDSVDLSEIMHSFAKCIEMGDCLNNEHFEELGGILKAKLEEHFKNQELRQVKRQDEDDYDEQVE
ESLQDEDDNDVYILTKVSDILHSIFSSYKEKVLPWFELQLPLIVNLICPHRPWPDRQWGLCIFDDVIEHCSPASF
KYAEYFLRPMQLQYVCDNSPEVRQAAAYGLGVMAQYGGDNYPFCTEALPLLVRVIQSADSKTKENVNATENCISA
VGKIMKFKPDCVNVVEEVLPHWLSWLPLHEDKEEAVQTFNYLCDLIESNHPIVLGPNNNTNLPKIFSIIEGEMHEA
IKHEDPCAURLANVVRQVQTSGGLWTECIAQLSPEQQAAIQELLNSA

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FIGURE 776A

CGAAGGACCTGAAGGAAAGTGGAAGTCCAAAGTTTAAAGATGCCAGAGATGCATTTTAAAGACTCCAAAGATATC
CATGCCAGATATTGACCTGAATCTCACAGGTCCAAAAATAAAAGGAGATGTGGATGTTACAGGCCCTAAGGTAGA
GGGAGATCTGAAAGGTCCTGAAGTTGACCTCAAAGGCCCCAAAGTGGACATTGATGTCCCAGATGTTAATGTTCA
GGGTCCAGACTGGCACCTGAAGATGCCCAAGATGAAAATGCCTAAGTTCAGTATGCCTGGCTTCAAAGGAGAGGG
CCCAGATGGTGGATGTGAAGCTGCCCATAGGCTGACATTGATGTCTCAGGACCAAAGTGGACATTGAAGGCCCTG
ATGTTAACATTGAAGGACCAGAGGGAAAGTTGAAAGGGCCTAAGTTCAGATGCCAGAGATGAATATCAAAGCCC
CCAAGATCTCCATGCCTGATATTGACTTAAACCTGAAAGGACCCAAGTGAAGGGTGATGTGGATGTTTCCCTTCC
TAAAGTGGAAGGTGACCTCAAGGGCCCAGAAGTTGACATCAAGGGCCCAAAGTGGACATTGACGCACCTGATGT
TGATGTTTCATGGCCCAGACTGGCACCTAAAGATGCCCAAGATGAAAATGCCCAAGTTCAGCATGCCTGGCTTCAA
AGCAGAGGGCCCTGAAGCTGGAATGTGAACCTGCCCAAGGCTGACGTTGATGTCTCAGGCCCCAAAGTGGATATT
AATGCCCCAGATGTGGGTGTTCAAGGCCCAGACTGGCACCTGAAGATGCCCAAGGTGAAAATGCCAAAGTTCAGC
ATGCCTGGCTTCAAAGGAGAGGGCCCAGATGGGGATGTGAAGCTGCCCAAGGCTGACATTGATGTCTCAGGACCC
AAAGTGACATTGAAGGCCCTGATGTTAACATTGAAGGACCAGAGGGAAAGTTGAAAGGGCCTAAGTTCAGATG
CCAGAGATGAATATCAAAGCCCCAAGATCTCCATGCCTGATATTGACTTAAACCTGAAAGGACCCAAAGTGAAG
GGTGATGTGGATGTTTCCCTTCTTAAAGTGGAAGGTGACCTCAAGGGCCCAGAAGTTGACATCAAGGGCCCCAAA
GTGGACATTGACGCACCTGATGTTGATGTTTCATGGCCCAGACTGGCACCTAAAGATGCCCAAGATAAAAATGCC
AAGATCAGCATGCCTGGCTTCAAAGGAGAAGGTCCAGATGTGGACGTGAACCTGCCCAAGGCTGACATTGATGTC
TCAGGACCGAAAGTGGATGTTGAATGTCCCGATGTGAATATCGAAGGACCTGAAGGAAAGTGGAAAAGTCCAAAG
TTTAAAGATGCCAGAGATGCATTTTAAAGACTCCAAAGATATCCATGCCAGATATTGACCTGAATCTCACAGGTCCA
AAAATAAAAGGAGATGTGGATGTTACAGGCCCTAAGGTAGAGGGAGATCTGAAAGGTCCTGAAGTTGACCTCAA
GGCCCCAAAGTGGACATTGATGTCCCAGATGTTAATGTTTCAGGTCCAGACTGGCACCTGAAGATGCCCAAGATG
AAAATGCCCAAGTTCAGCATGCCTGGCTTCAAAGCAGAGGGCCCTGAAGTGGATGTGAACCTGCCCAAGGCTGAC
GTTGATGTCTCAGGCCCCAAAGTGGACGTTGAAGGCCCTGATGTTAACATTGAAGGACCAGAGGGAAAGTTGAAA
GGGCCCAAGTTCAGATGCCAGAGATGAATATCAAAGCCCCAAGATCCCCATGCCTGACTTTGATTTGCATCTG
AAAGGTCCCAAGGTGAAGGGCCTGATGTGGATATTTCTCTGCCCAAGTGGAAAGGTGACCTCAAGGGCCCTGAAGTT
GACATCAGGGGTCCCAAAGTGGACATTGATGTCCCGATGTGGGCGTTCAAGGCCCAGACTGGCACCTAAAATG
CCCCAAAGTGAAGTGAAGTTCAGCATGCCTGGCTTCAAAGGAGAGGGCCCAGATGTGGATGTGAACCTGCC
AAGGCTGACCTTGATGTCTCAGGACCCAAGGTGGACATTGATGTTCCAGATGTGAATATCGAAGGCCCAGAGGGA
AAGTTGAAAGGTCCCAAATTCAAAATGCCTGAGATGAACATCAAAGCCCCAAGATCTCCATGCCTGACATTGAT
CTTAACCTGAAAGGTCCCAAAGTGAAGGGTGACATGGATGTGTCTCTGCCAAAGTGGAAAGGTGACATGAAAGTT
CCTGACGTGGATATTAAAGGCCCCAAAGTGGATATTAATGCCCCAGATGTGGATGTTCAAGGCCCAGACTGGCAC
CTGAAGATGCCTAAAATAAAAATGCCCAAGATCAGCATGCCTGGCTTCAAAGGAGAAGGTCCAGAAGTGGACGTG
AACCTGCCCAAGGCTGACCTTGACGTCTCAGGACCCAAGGTGGACGTTGATGTTCCAGATGTGAATATTGAAGGT
CCAGATGCCGAACTGAAGGGCCCTAAATTCAAGATGCCAGAGATGAACATCAAAGCCCCAAGATCTCCATGCCT
GACTTTGATTTGCATCTGAAAGGCCCTAAGGTGAAAGGAGATGTGGATGTTTCTCTGCCTAAGATGGAAGGTGAT
CTAAAGGTCCTGAAGTTGACATCAAGGGCCCCAAAGTGGACATTAATGCTCCAGATGTGGATGTTCAAGGCCCA
GACTGGCACCTGAAGATGCCCAAGGTGAAAATGCCCAAGTTCAGCATGCCTGGCTTCAAAGGAGAGGGCCCAGAT
GTGGATGTGAACCTGCCCAAGGCTGACCTTGATGTCTCAGGACCCAAGGTGGACATTGATGTTTCTGATGTGGAT
ATCCGAAGGTCCAGAAGGGAACTGAAAGGTCCCAAATTCAGATGCCTGAGATGAGCATCCAAGCCCCAAGAT
CTCCATGCCTGATATTGACTTAAACCTGAAAGGACCCAAAGTGAAGGGCGATGTGGATGTTACCTTCTCTAAAGT
GGAAGGTGACCTCAAGGGCCCAGAAGCTGACATCAAGGGCCCCAAAGTGGACATCAACACCCCTGATGTGGATGT
TCATGGCCCAGACTGGCACCTGAAGATGCCCAAGGTGAAAATGCCCAATTCAGCATGCCTGGCTTCAAAGGAGA
AGGTCCAGATGTGGATGTGAACCTGCCCAAGGCTGACATTGATGTCTCAGGACCCAAGTGGACGTTGATGTTCC
TGATGTGAATATCGAAGGTCCAGATGCGAACTAAAGGGCCCCAAGTTCAGATGCCTGAGATGAGCATCAAAGC
CCCCAAGATCTCCATGCCTGATATTGACTTAAACCTGAAAGGACCCAAAGTGAAGGGCGATGTGGATGTTACCT
TCCTAAAGTGGAAGGTGACCTCAAGGGCCCAGAAGCTGACATCAAGGGCCCCAAAGTGGACATCAACACCCCTGA
TGTGGATGTTTCATGGCCCAGACTGGCACCTGAAGATGCCCAAGGTGAAAATGCCCAATTCAGCATGCCTGGCTT
CAAAGGAGAAGGTCCAGATGTGGATGTGAGCCTGCCCAAGGCCGACATCGATGTCTCGGGACCCAAGGTGGACGT

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FIGURE 776B

TGATATTCCAGATGTGAATATCGAAGGTCCAGACGCAAACTGAAGGGCCCCAAGTTCAAGATGCCTGAAATAAA
TATCAAAGCTCCCAAGATCTCCATACCTGATGTTGACCTGGATTTGAAAGGACCCAAAGTAAAAGGAGATTTTGA
TGTGTCTGTCCCTAAGGTTGAAGGGACTTTGAAAGGCCCAGAAGTAGATCTTAAAGGTCCACGTCTGGATTTTGA
AGGCCCTGATGCCAACTCAGTGGCCCATCTTTGAAGATGCCATCGCTGGAGATATCTGCTCCTAAAGTAACTGC
TCCTGATGTTGATTTGCATCTCAAGGCACCAAAAATTGGATTTTCAGGTCCGAAGTTAGAAGGTGGTGAAGTGGA
CCTCAAGGGACCCAAAGTTGAAGCTCCAAGCTTAGATGTACACATGGACAGCCAGATATTAACATCGAAGGGCC
AGATGTTAAAAATCCCCAAATTTAAGAAACCCAAGTTTGGATTTGGGGCAAAAAGCCCCAAAGCTGACATCAAGTC
ACCTTCACTGGATGTCACTGTTCTTGAGGCAGAGCTGAACCTTGAGACTCCTGAAATTAGTGTGGTGGCAAGGG
CAAGAAAAGTAAGTTTAAATGCCTAAAATTCATATGAGTGGTCCTAAGATTAAGGCCAAAAAACAGGGATTTG
ACCTGAATGTTCTTGGGGGTGAAATTGATGCCAGCCTCAAGGCTCCGGATGTAGATGTCAACATCGCAGGGCCGG
ATGCTGCACTCAAAGTCGACGTGAAATCGCCAAAACCAAGAAAACGATGTTTGGAAAAATGTACTTCCCAGATG
TAGAGTTTGACATTAAATCACCTAAATTTAAAGCTGAGGCCCCCTCCTCCCTAGCCCCAACTGGAGGGTGAACCTC
AGGCACCTGATCTGGAACCTTCTTTGCCAGCGATTACGTGCAAGGTCTTGACATCAAGGCGAAGGCTCCCAAGG
TCAAGATGCCAGATGTGGACATCTCAGTGCCAAAAATAGAGGGTGACCTGAAAGGGCCCCAAAGTGCAGGCAAAC
TGGGTGCACCTGACATCAACATCGAAGGCCTAGATGCTAAAGTCAAAACACCGTCTTCGGCATTCTTGCCCCCTC
AAGTCTCCATCCCTGATGTGAATGTAACTTGAAAGGACCAAGATAAAGGGTGATGTCCCAGCGTGGGACTGG
AAGGACCAGATGTAGATCTGCAAGGTCCAGAAGCAAAAATTAAGTTCCCCAAGTTTTCCATGCCCAAGATCGGCA
TCCCAGGTGTGAAAATGGAGGGTGGGGGAGCCGAGGTCCATGCCCAGCTACCTCTCTTGAAGGAGACTTGAGAG
GACCAGATGTTAAGCTCGAAGGGCCCGATGTTTCTCTAAAGGGGCCAGGAGTAGACTTGCCTTCAGTGAACCTCT
CTATGCCAAAAGTCTCTGGGCCTGACCTTGATCTGAACCTTGAAAGGACCAAGTTTGAAGGGAGACCTGGATGCAT
CTGTTCCCAGCATGAAGGTGCATGCTCCAGGGCTCAACCTCAGTGGTGTGCGGTGGCAAAATGCAGGTGGGAGGAG
ACGGTGTGAAAGTGCCAGGGATCGATGCCACAACAAAGCTTAACGTTGGGGCACCAGATGTGACACTGAGGGGAC
CAAGCCTGCAGGGAGATCTGGCTGTCTCTGGTGACATCAAATGCCCTAAAGTATCCGTAGGAGCTCCTGATCTAA
GCTTGAGGCATCCGAAGGCAGCATTAACTTCCCAAAATGAAGCTGCCCAATTTGGCATCTCTACTCCGGGGT
CCGACTTGACGTCAATGCCAAGGGGCCACAGGTTTCTGGCGAACTGAAGGGGCCAGGTGTGGATGTGAACCTGA
AAGGGCCTCGGATTTTCAGCACCGAATGTGGACTTTAACTTGGAAGGACCAAAAGTGAAAGGGAGCCTTGGGGCCA
CTGGTGAGATCAAAGGCCCACTGTGCGAGGAGGTCTTCAGGCATTGGTGTTCAGGCCTAGAAGGAAACCTCC
AGATGCCTGGAATTAAGTCTCTGGATGTGATGTGAACCTGCCAGGCGTGAATGTGAACTCCCAACTGGGCAGA
TTTCTGGGCCTGAAATCAAAGGTGGTCTGAAAGGTTTCAAGAGTAGGTTTCCATGGGGCTGCTCCTGATATCAGTG
TGAAGGGGCCCTGCCTTTAATATGGCATCTCCTGAGTCAGATTTTGGCATCAACTTGAAGGGGCCAAAAATCAAAG
GAGGTGCGGATGTTTCAGGGGGTGTGAGTGCCCCAGACATCAGCCTTGGTGAAGGGCATTGTAGTGTAAAGGTT
CCGGGGGTGAGTGGAAGGGACCCCAAGTCTCCTCTGCTCTCAACTTGGACACATCTAAGTTTGTGGGGGCCCTTC
ATTTCTCAGGACCAAAGGTGGAAGGAGGTGTGAAAGGAGGTGAGATTGGACTCCAGGCTCCTGGGCTGAGTGTGT
CTGGGCCTCAAGGTCACTTGGAAAGTGATCTGGAAGTAACATTCCCTAAAATGAAGATCCCCAAATTTACCT
TCTCTGGCCGTGAGCTGGTTGGCAGAGAAATGGGGGTGGATGTTCACTTCCCTAAAGCAGAGGCCAGCATCCAAG
CTGGTGTGAGACGGCGAGTGGGAAGAGTCTGAAGTCAAAGTGAAGAGTCCAAGATCAAATGCCCAAGTTTA
ATTTTTCCAAACCTAAAGGGAAAGGTGGTGTCACTGGCTCACCAGAAGCATCAATTTCTGGGTCCAAGGTGACC
TGAAAGTTCAAAGGCCAGCCTGGGCTCTCTGGAAGGAGAGGCAGAGGCCGAAGCCTCTTCACCGAAAGGCAAAT
TCTCCTTATTTAAAAGTAAGAAGCCACGGCACCGCTCAAATTCATTGATGATGAAAGAGAGTTCTCTGGACCTT
CCACCCCGACGGGGACGCTGGAGTTTGAAGGTGGGGAAGTGTCTCTGGAAGGTGGGAAAGTTAAAGGGAAACAG
GGAAGCTGAAATTCGGTACCTTTGGTGGATTGGGGTCAAAGAGCAAAGGTGATTATGAGGTGACTGGGAGCGATG
ATGAGACAGGCAAGTTACAGGGGAGTGGGGTGTCCCTGGCCTCTAAGAAGTCCCGACTGTCCTCCTCTCTAGCA
ATGACAGTGGGAATAAGGTTGGCATCCAGCTTCCCGAGGTGGAGCTGTCAGTTTCCACAAAGAAAGAGTAGCAGG
CCTTTGTATGTGTGATATATATATATAACAAAACATCAGCCTTGGGTGGTGTGTTCTATATAAACTCCA
AAGGGAAACACACCGACTGCCTCAGCAATCATGCAAAGACCTTGCCCTGGCCCCGGTGGCAAGCGCTGAAAAACCGA
CCGCCTGTAGGCTCCTGGAACATACAGATAGGTAAAGAGTTCCAAGTTCGTCCAGCCCATGTGCAAAGTCAACA
GTATTTGCCTTAAGATTTTATATATATATATTTTTTGCATTGACTGCTGAGAGCTCCTGTTTACTAAGCAAGCT
TTTGTGTTTATTATCCTCATTTTTTACTGAACATTGTTAGTTTTTGGGGTAATGGAAACCCACTTTTTTCATTGTAAT

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FIGURE 776C

GACTTTGGGGGCTTTTGTAGTAAGGGTGGGTGGGGTGATGGGTTGCAGACGGAGGTCAGGTCTTCCTCTTTCCT
GAGACTGGATCTGTTCAAACAGCAAACGCCCACAGATGGCCCAGAGGTGGTGGTAGTCAGGGTGTGTGGGTGTTT
TTAGGGTTCTTTAGTGTTGTTTCTTTCACCCAGGGGTGGTGGTCCCAGCCAGTTTGGTGCTGACGGTGAGAGGAA
ATTAGAATCTGTTTGCAAATTGTCCAACCCACCCCTCAACATGAGGGGCTTCCATTTTCTGTGTTTTGTAAGGG
AACTGTTTCCTTCATGCCGCCATGTTCTGATATTAGTTCTGATTTCTTTTTTAACAAATGTTATCATGATTAAGA
AAATTTCCAGCACTTTAATGGCCAATTAACCTGAGAATGTAAGAAAATTGATGCTGTACAAGGCAAATAAGCTGT
TTATTAACCTCCGAAAAAAATCTATGTCGGGTGCGGAGAAAGAGGTAATGAAATGGCA

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FIGURE 777

MPKVKMPKFSMPGFKGEGPDGDVVKLPKADIDVSGPKVDIEGPDVNIIEGPEGKLGPKFKMPEMNIKAPKISMPDI
DLNLKGPKVKGDVDVSLPKVEGDLKGPEVDIKGPKVDIDAPDVDVHGPDWHLKMPKIKMPKISMPGFKGEGPDVD
VNLPAKADIDVSGPKVDVECPDVNIIEGPEGKWKSPFKMPEMHFKTPKISMPDIDLNLTGPKIKGDVDVTGPKVEG
DLKGPEVDLKGPKVDIDVPDVNVQGPDWHLKMPKMKMPKFSMPGFKAEGPEVDVNLPAKADVDVSGPKVDVEGPDV
NIEGPEGKLGPKFKMPEMNIKAPKIPMPDFDLHLKGPKVKGDVDISLPKVEGDLKGPEVDIRGPKVDIDVPDVG
VQGPDWHLKMPKVKMPKFSMPGFKGEGPDVDVNLPAKADLDVSGPKVDIDVPDVNIIEGPEGKLGPKFKMPEMNIK
APKISMPDIDLNLKGPKVKGDMVSLPKVEGDMKVPDVIDKGPKVDINAPDVDVQGPDWHLKMPKIKMPKISMPG
FKGEGPEVDVNLPAKADLDVSGPKVDVDPDVNIIEGPDALKGPKFKMPEMNIKAPKISMPDFDLHLKGPKVKGDV
DVSLPKMEGDLKGPEVDIKGPKVDINAPDVDVQGPDWHLKMPKVKMPKFSMPGFKGEGPDVDVNLPAKADLDVSGP
KVDIDVPDVIDRRSRRETERSQIQDAEMSIQAPKISMPDIDLNLKGPKVKGDVDVTLPKVEGDLKGPEADIKGPK
VDINTPDVDVHGPDWHLKMPKVKMPKFSMPGFKGEGPDVDVNLPAKADIDVSGPKVDVDPDVNIIEGPDALKGPK
FKMPEMSIKAPKISMPDIDLNLKGPKVKGDVDVTLPKVEGDLKGPEADIKGPKVDINTPDVDVHGPDWHLKMPKV
KMPKFSMPGFKGEGPDVDVSLPAKADIDVSGPKVDVIDPVDNIIEGPDALKGPKFKMPEINIKAPKISIPDVLDL
KGPKVKGDFDVSPKVEGTLKGPEVDLKGPRLDIEGPDALSGPSLKMPSEISAPKVTAPDVLHLKAPKIGFS
GPKLEGGEVDLKGPKVEAPSLDVHMDSPDINIEGPDVKIPKFKPKFGFGAKSPKADIKSPSLDVTVPEAELNLE
TPEISVGGKGKSKFKMPKIHMSGPKIKAKKTGIDLVNPGGEIDASLKAPDVDVNIAGPDAALKVDVKSPKTKKT
MFGKMYFPDVEFDIKSPKFKAEAPLSPKLEGEAQAPDLELSLPAIHVEGLDIKAKAPKVKMPDVIDSVPKIEGD
LKGPKVQANLGAPDINIEGLDAKVKTPSFGISAPQVSIPDVNVNLKGPKIKGDVPSVGLEGPDVDLQGPPEAKIKF
PKFSMPKIGIPGVKMEGGGAEVHAQLPSLEGDLRGPDKLEGPDVSLKGPVLDLPSVNL SMPKVS GPDLDLNLKG
PSLKGDLASVPSMKVHAPGLNL SGVGGKMQVGGDGVKVP GIDATTKLVN GAPDVTLRGPSLQGD LAVSGDIKCP
KVS VGAPDLSLEASEGS IKLPKM KLPQFGISTPGSDLHVNAKGPQVSGELKGP GVDVNLKGPRISAPNVDFNLEG
PKVKGSLGATGEIKGPTVGGGLPGIGVQGLEGNLQMPGIKSSGCDVNLPGVNVKLPTGQISGPEIKGGLKGSEVG
FHGAAPDISVKGPAFNMA SPESDFGINLKGPKIKGGADVSGGVSAPDISLGEGLSVKSGSGGEWKGPQVSSALNL
DTSKFAGGLHFS GPKVEGGVKGQIGLQAPGLSVSGPQGHLESGSGKVTFPKMKIPKFTFSGRELVGREMGVDVH
FPKAEASIQAGAGDGEWEESEVKLKKSKIKMPKFNFSKPKGKGGVTGSPEASISGSKGDLKSSKASLSLEGEAE
AEASSPKGKFSLFKSKKPRHRSNSFSDEREFS GPSTPTGTLEFEGGEVSLEGGKVKGKHGKLKFGTFGGLGSKSK
GHYEVTSDDETGKLQSGSVSLASKKSRLSSSSSSNDSGNKVGIQLPEVELSVSTKKE

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FIGURE 778

GTGCGGTTGGGAACGCGGAGCGGACGGATTTCGATTCAACGGGGTTCCGGACCGCGCTGCGCT**ATG**GAGCAGGTCA
ATGAGCTGAAGGAGAAAGGCAACAAGGCCCTGAGCGTGGGTAACATCGATGATGCCTTACAGTGCTACTCCGAAG
CTATTAAGCTGGATCCCCACAACCACGTGCTGTACAGCAACCGTTCTGCTGCCTATGCCAAGAAAGGAGACTACC
AGAAGGCTTATGAGGATGGCTGCAAGACTGTGACCTAAAGCCTGACTGGGGCAAGGGCTATTACGAAAAGCAG
CAGCTCTAGAGTTCTTAAACCGCTTTGAAGAAGCCAAGCGAACCTATGAGGAGGGCTTAAACACGAGGCCAAATA
ACCCTCAACTGAAAGAGGGTTTACAGAATATGGAGGCCAGGTTGGCAGAGAGAAAATTCATGAACCCTTTCAACA
TGCCTAATCTGTATCAGAAGTTGGAGAGTGATCCCAGGACAAGGACACTACTCAGTGATCCTACCTACCGGGAGC
TGATAGAGCAGCTACGAAACAAGCCTTCTGACCTGGGCACGAACTACAAGATCCCCGGATCATGACCACTCTCA
GCGTCTCTCTGGGGTTCGATCTGGGCAGTATGGATGAGGAGGAAGAGATTGCAACACCTCCACCACCACCCCTC
CCAAAAGGAGACCAAGCCAGAGCCAATGGAAGAAGATCTTCCAGAGAATAAGAAGCAGGCACTGAAAGAAAAAG
AGCTGGGGAACGATGCCTACAAGAAGAAAGACTTTGACACAGCCTTGAAGCATTACGACAAAGCCAAGGAGCTGG
ACCCCACTAACATGACTTACATTACCAATCAAGCAGCGGTATACTTTGAAAAGGGCGACTACAATAAGTGCCGGG
AGCTTTGTGAGAAGGCCATTGAAGTGGGGAGAGAAAACCGAGAAGACTATCGACAGATTGCCAAAGCATATGCTC
GAATTGGCAACTCCTACTTCAAAGAAGAAAAGTACAAGGATGCCATCCATTTCTATAACAAGTCTCTGGCAGAGC
ACCGAACCCCGAGATGTGCTCAAGAAATGCCAGCAGGCAGAGAAAATCCTGAAGGAGCAAGAGCGGCTGGCCTACA
TAAACCCCGACCTGGCTTTGGAGGAGAAGAACAAGGCAACGAGTGTTTTTCAGAAAGGGGACTATCCCCAGGCCA
TGAAGCATTATACAGAAGCCATCAAAGGAACCCGAAAGATGCCAAATTATACAGCAATCGAGCTGCCTGCTACA
CCAAACTCCTGGAGTTCCAGCTGGCACTCAAGGACTGTGAGGAATGTATCCAGCTGGAGCCGACCTTCATCAAGG
GTTATACACGGAAAGCCGCTGCGCTGGAAGCGATGAAGGACTACACCAAAGCCATGGATGTGTACCAGAAGGCGC
TAGACCTGGACTCCAGCTGTAAGGAGGCGGCAGACGGCTACCAGCGCTGTATGATGGCGCAGTACAACCGGCACG
ACAGCCCCGAAGATGTGAAGCGACGAGCCATGGCCGACCCTGAGGTGCAGCAGATCATGAGTGACCCAGCCATGC
GCCTTATCCTGGAACAGATGCAGAAGGACCCCCAGGCACTCAGCGAACACTTAAAGAATCCTGTAATAGCACAGA
AGATCCAGAAGCTGATGGATGTGGGTCTGATTGCAATTCGGT**TGAT**GACTTGTTTCATCCCCCTTCCCTTCGCCCT
CATGTGGAAGAGGAGCTGGGACCGCGCGAGCAGCACGGAGCGGAAGGGAGAGCAGGGGAGAGAAGGCCTCATC
TCTCTATATTTATACATAACCCCGGGGAAGACACAGAGACTCGTACCTGCGCTGTTTGTGCCGCGCTGCCTCTG
GGCCCTCCCAGCACACGCATGGTCTCTTACCGCTGCCCTCGAGTTCCATGTCTCTTTCCCTGCCCTAGTTGC
TGTCTCGGCTGCTCTCCCATAGTTGGTTTTTTTTTTTATTTGGGGCAGTGGGCATGTTATGGGGAGGGGAGGGGGT
TCTTCCAGCCTCAGGTCCAGCTGTCTCACGTTGTTTATTCTGCGTCCCCTTCTCCAATAAAACAAGCCAGTTGG
GCGTGTTATAAC

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FIGURE 779

MEQVNELKEKGNKALSVGNIDDALQCYSEAIKLDPHNHVLVSNRSAAYAKKGDYQKAYEDGCKTVDLKPDWGKGY
SRKAAALEFLNRFEEAKRTYEEGLKHEANNPQLKEGLQNMPEARLAERKFMNPFNMPNLYQKLESDPRTRTLSDP
TYRELIEQLRNKPSDLGTKLQDPRIMTTLSVLLGVDLGSMDEEEEIATPPPPPPPKKETKPEPMEEDLPENKKQA
LKEKELGNDAYKKKDFDTALKHYDKAKELDPTNMTYITNQAAVYFEKGDYNKCRELCEKAIEVGRENREDYRQIA
KAYARIGNSYFKEEKYKDAIHFYNKSLAEHRTPDVLKKCQQAEEKILKEQERLAYINPDLALEEKNGNECFQKGD
YPQAMKHYTEAIKRNPKDAKLYSNRAACYTKLLEFQLALKDCEECIQLEPTFIKGYTRKAAALEAMKDYTKAMDV
YQKALDLDSSCKEAADGYQRCMMAQYNRHDSPEDEVKRRAMADPEVQQIMSDPAMRLILEQMOKDPQALSEHLKNP
VIAQKIQKLMVGLIAIR

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FIGURE 780

GCTAGATGAGACTGAAGAGTCTTCTTTACTTTAAGTGATTGATTTTCATTTAGGACTCCTTGTGGGTTTTTTGTAA
AAAGCCATTAAACCATTTCCTGCCCCTGATCTCCATATCAGCCTTTATATATATTTCATTGCTCTCAACAGCCCC
AATTTTTTTTATTAAACAGATGGGGAACAGAGGCTCTGAGCGGTTAAACAAAGCTTTCTTTCTGTGGAAACCTAGTA
AATGGCAAAGCTGGAATATGAACTGCAAAGCCTATGTGCTTAACTAGTAAACCCAACCACCTGGGACCACCATA
TCTTACTGTGCAGTTTGTGTGTGTGAGGGGATCAGAACATCTAAGAACTGCCATTACGTTGAGGACAACATA
GGGATTTATATATTAATACATGCTGGTGTAAATACAGGCCGGTGTCTGTAAAAATTAGTATATTAGGACAGTTTG
CCATACCATAGGGGAAAAGCCACTTTATTCTAATTCACCCAAAGGTACTGTAAGTGCTGATGGCTCTGGGTCTGT
CTTTCTGTCAAGTTGCCAAGTCACATAAGTAATGAATCCGCAGCTGGAGGAGCTGCTGCTGGAGGACAGGCATGT
TTTCAGACAGGAGCATGGCCTTTAGCTCATGACCATAAGAGGGCGCTACAGCAAAGAGTACTAAATACCAATCAA
AGTGAGCTCAGAGTACAAGAGGGTAACTTGCTTTTCTCCAAAGTAAAAGAGAAGACATAGTCTCAAACACTTGC
CCTGTGCCCTGTCCCTGAACTCTCCATGGAGGAATTTTTTCTGTTGTTTAGTGTTAGCAGAATTTAGGAAGGGCT
TGTAATAAGGAAGGTTGAGGGTTGGGTGGGGTCACACTGTGTTGTGTGAGGATCATTTTCATGTTAATGAAATGT
TTAGTTCCTTAAGGGGAATGTGGTAGAGCCTTTATCTCCCCCTGCCCTTTTTTTTAACTGCACAGGTCTGGCA
CAATGTTTATTGTGTCATAAATAACCAAGAAATGGGTTTCTACAAAAGATGCAAAGACTGTGCTTCTGGAATTCC
CTACCACAGCGAGGTCCCTGTGAGTTTGAAAGAAGCTGTCTGCGAAGTGGCCCTTGATTACAAAAGAAGAAACA
CGTATTCAAGCTAAGACTAAATGATGGCAATGAGTACCTCTTCCAAGCCAAAGACGATGAGGAAATGAACACATG
GATCAAGGAAAAATTACTGCAGTTGACGGAAGAGGAAAGAAATGATCGGTCCTTACAGCCGCTCGTCAGACTC
CAGCAACCTGGGATGAGAGGTTCTCTGCCCTGGAAAGGCTGACTACATTGGAGTTACTGGAAGTGCGCAGACAGC
AAGAGGAAGAGGAGAGGAAGAGGCGGCCCTTCTCCCGAGCCGAGCACGAAGGTTTCAGAGGAAGCCGAGTCCC
AGCAGCAGTGGGATACTTCAAAGGAGAACAAGTTTCCCAAACGGTTTGCCAGCTGAACAGGGATCTCCACGGA
TGGCAGAAACGGTGGACACAAGCGAAATGGTCAACGGCGCTACAGAACAAGGACGAGCTCTAAAGAGTCCAGCC
CCATCCCCCTCCCCGACCTCTGATCGTAAAGCCAAGACTGCCCTCCCAGCCAGAGTGCCGCCACCTTACCAGCCA
GAACCCAGGAGACACCTTCGGCCAGATGGAAGGCTTCCTCAATCGGAACACGAGTGGGAGGCCACAATAAGA
AAGCCTCAAGCAGGTCTGGCACAATGTTTATTGTGTCATAAATAACCAAGAAATGGGTTTCTACAAAGATGCAA
AGACTGCTGCTTCTGGAATTCCCTACCACAGCGAGGTCCCTGTGAGTTTGAAAGAAGCTGTCTGCGAAGTGGCCC
TTGATTACAAAAGAAGAAACACGTATTCAAGCTAAGACTAAATGATGGCATGAGTACCTCTTCCAAGCCAAAGA
CAAAGAGAACCGGTTACGCCTTTTTGGCCAAAAAGAAATGAATCCTTTCTTACCTCTGCCCTTCTCTTACC
CTTTCAGTGAAATTCCCGCATGCAAGCTCAGAACCCACACAGTACTCTCTGTGCCCAAAGTTCCCCAAAGTGGTT
GAANNNNNNNNNNNNNNNNNNNNNNNAGAGCATTTTCGGGGGGGGTGGGGGAAACACACCTAAACACTTTATCTCCCA
GTTACCAAAGTTTGAGGTGCAGAGGGAAGGCCAGATTTTTTTTTTAAATGAAATTATATAGATTAGATCTCAGTAT
TTAAACTGTTCCCTCAATTTTGTGAGGCTGTGTTGGAAATAACCCGCCTCTAGTGCTGTTGGTATGCAAGGCAGCG
GTGCTTAATCAATATTTCTGTGCTCACCAGAGGCCAAATGTACCAATATCCTGACACCATTCTCTCTCCATTTA
CTTCTTGGTGGTTACCCTGACTCTTGACTCTTAGAAGTGCCCAGATGGGGCTAACCTTTATTAAACAGATCGCA
TATTATGATCTTGCTGCAGCCACAGTGCAGCTCCACATTAACCTCTACAGACCAAACCATTTGTATCTGGCATCAC
TTACTAACACACGACATGCGGCTTTTCTGCATCAACTGCTATGACGGTTAAGAATGTCAGTATACAAGAAGGAAT
AGAAAAGTACTGTTTAAATAATCTGTAAATTTCAATTTTTTTTTTTTGTGCTGAAATACATTATATTGTACGT
TTGAGATAATTCTAGTACAAAGTATAATAAACTAGATGTATAATAAACCTTTAAATCATTGGTAAGTGTACAA
GTGGTGGAAGTGAAGCATTTACTGGACAAAGTAATGTTACTCTAATGGTTACTTGCTCGTGCGTTGCCACACTG
TGTTATAATTTGCTTCATTTCTTGCTATTTGATACATAGTGTGCATTTCTCTGTCACTGTAACATTGTAAATGA
CAAAATTTTCATCTTACTGCACAATCAAAATGACATTGATAGGAATGAACTCCAGAGGCTGGGCCTGAACAGGGAG
GTGGTCGCTCAGGCCTGGTGTCTAGTGTACGACCTGTACCTCTCAACTTTTGCCCTATCTGTTAAATATATGCT
ATGTCATTAAATGCTTTTAAATCTAGCACGGTGACTAGTTGTTGTTCTTCTCTGCTGCGTGTGCATGCCAGTA
GGGAAAGTGCAAAGGGAGAAATGACAAACAAGAAACATTTTACAACCAGTCTGGGCTCACTTTTGCATTTTTTAT
GCAATGTCTGGTGCACAAGCTTTGAAACTACAGCAAACAGTAATAAATGTGACTGTTTTGTAGT

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FIGURE 781

MAETVDTSEMVNGATEQRTSSKESPIPSPTSDRKAKTALPAQSAATLPARTQETPSAQMEGFLNRKHEWEAHNK
KASSRSWHNVYCVINNQEMGFYKDAKTAASGIPYHSEVPVSLKEAVCEVALDYKKKKHVFKLRLNDGMSTSSKPK
TKRTGSAFLAKKK

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FIGURE 782A

CGCGTGTCTACGCGGACGCACCGGCTAAGCTGCTTCTGCCGCCGCCGCCCTGGGACCTTGCGGTGAGGCTGC
GCGGGGCCGAGGCCGCTCCGAGCGCCAGGTTTATTAGTCACCATGAAGCTGCTGCTGCTGCACCCGGCCTTCC
AGAGCTGCCTCCTGCTGACCCTGCTTGGCTTATGGAGAACCACCCCTGAGGCTCACGCTTCATCCCTGGGTGCAC
CAGCTATCAGCGCTGCCTCCTTCTGAGGATCTAATACATCGGTATGGCGAGGGTGACAGCCTCACTCTGCAGC
AGCTGAAGGCCCTGCTCAACCACCTGGATGTGGGAGTGGGCCGGGGTAATGTCACCCAGCACGTGCAAGGACACA
GGAACCTCTCCACGTGCTTTAGTTCTGGAGACCTCTTCACTGCCACAATTCAGCGAGCAGTCGCGGATTGGGA
GCAGCGAGCTCCAGGAGTTCTGCCCCACCATCTCCAGCAGCTGGATTCCCGGGCCTGCACCTCGGAGAACCAGG
AAAACGAGGAGAATGAGCAGACGGAGGAGGGGCGGCCAAGCGCTGTTGAAGTGTGGGGATACGGTCTCCTCTGTG
TGACCGTCATCTCCCTCTGCTCCCTCCTGGGGGCCAGCGTGGTGCCCTTCATGAAGAAGACCTTTTACAAGAGGC
TGCTGCTCTACTTCATAGCTCTGGCGATTGGAACCCTCTACTCCAACGCCCTCTCCAGCTCATCCCGGAGGCAT
TTGGTTTCAACCCTCTGGAAGATTATTATGTCTCCAAGTCTGCAGTGGTGTTTGGGGGCTTTTATCTTTTCTTTT
TCACAGAGAAGATCTTGAAGATTCTTCTTAAGCAGAAAAATGAGCATCATCATGGACACAGCCATTATGCCTCTG
AGTCGCTTCCCTCCAAGAAGGACCAGGAGGAGGGGGTGATGGAGAAGCTGCAGAACGGGGACCTGGACCACATGA
TTCTCAGCACTGCAGCAGTGAGCTGGACGGCAAGGCGCCCATGGTGGACGAGAAGGTCATTGTGGGCTCGCTCT
CTGTGCAGGACCTGCAGGCTTCCAGAGTGCTTGCTACTGGCTGAAAGGTGTCCGCTACTCTGATATCGGCACTC
TGGCCTGGATGATCACTCTGAGCGACGGCCTCCACAATTTTCATCGATGGCTGGCCATCGGTGCTTCCTTCACTG
TGTCAGTTTTTCAAGGCATCAGCACCTCGGTGGCCATCCTCTGTGAGGAGTCCACATGAGCTAGGAGACTTTG
TCATCCTGCTCAACGCTGGGATGAGCATCCAACAAGCTCTCTTCTCAACTTCCTTTCTGCCTGCTGCTGCTACC
TGGGTCTGGCCTTTGGCATCTGGCCGGCAGCCACTTCTCTGCCAACTGGATTTTTTGCCTAGCTGGAGGAATGT
TCTTGATATTTCTCTGGCTGATATGTTCCCTGAGATGAATGAGGTCTGTCAAGAGGATGAAAGGAAGGGCAGCA
TCTTGATTCCATTTATCATCCAGAACCTGGGCCTCCTGACTGGATTACCATCATGGTGGTCCTCACCATGTATT
CAGGACAGATCCAGATTGGGTAGGGCTCTGCCAAGAGCCTGTGGGACTGGAAGTCGGGGCCTGGGCTGCCCGATC
GCCAGCCCGAGGACTTACCATCCACAATGCACCACGGAAGAGGCCGTTCTATGAAAACTGACACAGACTGTATT
CCTGCATTCAAAATGTCAGCCGTTTGTAATGCTGTATCCTAGGAATAAGCTGCCCTGGTAACCACTCTCTAGCT
AGTGCCCTCTTGGCCTCTCCTCACCTCCTTTTTCTCTCAGTGACTCTGGAACCTGAATGCAGCTTACAAGACAAGCC
TGACTTTTTTCTCTGATTACCTTGGCCTCCTCTTGGAACCACTGCTGAAAGGTTTTGAATCCTTTACCCAACAAT
GCAAAAAATAGAGCCAATGGTTATAACTTGGCTAGAAATATCAAGAGTTGAATCCATAGTGTGGGGCCCATGACTC
TAGCTGGGCACCTTGACCTCCAGCTGGCCAATAGAAGAGACAGGAGACAGGAAGCCTTCCATTTTTTCAAAGT
CTGTTTAATTGCCTATTACTTCTCTCAAAGAGAACCTGAAGTCAGAACACATGAGCAGGGTGAGAGGTGAGGCAA
GGTTCATCCTGAATGGGAGAGGAAGTCGAACCACTGCTGTGTGCTTGTGAGGATGCTCACTTGTTCTACTGAG
ATGCTGGATATTGATTTTGTAAACAGCACCTGGTGTTTACCGCTGTCCGAGTGAGCTAACGTGGCGGTGTGGCTG
CCTGGACCTCCTCTTTACAGTTAACGCTGACAGAATGGAGGCTCAGGCTGTCTGCAAGAAAACAGTTGGTTTGGC
TGTGATTTTGACCTCCTCTTCCCCACTGCCATCTTCTAAGAGACTTTGTAGCTGCCTCCTAGAAGCACATTCTGA
GCACATTTGAGACCTCTGTGTTAGAGGGGAGACTGCACAACTATCCTCCCCAGGTTGAGACGTCTGCAGAGTG
GCAAGCTGACTTGTAGAAATGGGGTGCCATTTATGCTCTACTTAGACAAGGGTAATCAGAAATGGAATCAGTGCA
GGCAAAATTTAGGATTTGCCGCTTCATAAATCAAAGCATGACTAATAGGGGGTCTCTGAAATGTAAGGGCACAA
ACTTCACTTAGGGCATCGCAGATGTTTGCAGAATGGTTGGCCTAATGATTATGCTACAGATGGGTTTTAAATGAC
CCGTCTAGGTTACTGCTTCCCTTGCAAAAAAGTCGAATCCTGCATTGAATTGAATATGAATTTCTCTAACTCTCT
CCAGAAAAATGGATGGAGATAACTTGCTTTTAAACTGTAGGCCAGCCTTAGCCACTGTGGAGCCCTTGCCCTCCGA
GCTCTGGCTTCAAGGGGAGCTCTTCTCCAGGTTCACTAGGTGAATTGATTTATTATTATCATATTGATAATGTGA
GATTTCTTTAGCCACTTTGGGGAGCCTGTCTCTCCAGAAGCCTTTCTTAGTGGTGCCACAGTTGGAGCCCAGGGG
CCATGTTTGCAAACTGATTCATGTGCATGGCTGACAGGAGTACTGGTTCCTACCAATGCCTGAGCTTTTCTCTT
ACATAGAAAAACTGTCCACTCTCAGTAATCACAAGCAGCATCCGTTTTGTTTTCTCTTCTTGGGAGACATCTGTC
AAACCAGGAATATTCTTGAAAAGAACGTGAGCAGGAAAAACTGCTGGTGATACTTTTTTTAAGTTTTGTTTTAT
CTTGCCCTGTTGGCTTCAATACATTTGAGAATACGCTGAAGAGGGGAAAAATTCAGTGATGGAGATTCTAGATTAAA
TATCAGGACTGATTTCTGGTGGGATTATGGTCCAGTTTTTACCAAAGAACCAATTCCTTGAATGTTGGAATCTAA
CTTTTTATATTGTCATTATTATTGTTGTTTTTAAACGGTTCTTTGCTTTTCTGTTTTATTTTTCTCAAGCTGCT
TTCAGGAGCTAGCAGAAAATAACTCAAAGTTGAAGACTCTGGAAGATTTTGCTTTAACCTAACCTCGCATTGATGT

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FIGURE 782B

ATTAAATTTATAATTTTAGCATTCCCAATAGATCCTATCATTCCCTTAAACATAATACCCTTTGTCTTGGAGTAGA
ATACTAAGTTAGAGTTAGTGGATTTCCTAGTTTAGGAGAGGAGCTCAAAACTATAATCTTTAACAAATTGAAAAAT
GAAATAGGGTGTTTTCCCTTTTTGTGCACACCTATATTACCTTAAGAAATTTCCCTTCCATAGACAGCTGCCTCAA
AGGGAAATCCTCTTTAAACCGTAGTTGGCGCAGAGGTCAGTCCTAGTCGGAGCTTAGGAGGGGCGGAGACGCTCA
CATCGTCTGACTTGAGTCGCCACTGATTGTGGCAACAGCTTTGCCCTCATGAGTCAAAAATTGGCAATTTCTTTTG
ATTTTTAGTTGTTGAATTTGCTGTTTCAAGCATTGTACATATTAGAAGTCTAAGGAGTAGCAAGTCAGTGGGAG
GACTTTTTCACCCCTGGCATTAGCAGCTTCGACCTCATTTTCCAGATGCACCAGCTCCTATTAATAAGTTAGCAA
GGAAAGTGTATGTCACGTGCAGGAACAGTGAGGCAGGGACAGGGGTCTGCTCCTTCTCACTTCACCACCGGCAC
ACAGCTTGCCCCTGTCTTTGCCCCCAAAGGTATTTGTGTCTAGTGTCAAATTGGAGCTATTCTTCACTGGTCCT
TAACCTTGGGTTTTAAAAAGAAGGCTTCTCTGTTTGGGTAGCGTAAGAGCTGAGTATAGTAAGTCCTCTTCCAAA
GAGATGGCAATATGCTGGGCATCTACTTTAAACAAAGTTGTCTGATTTTGTCAAGAGAGGTTAGGATTTTATTG
TTCTTATTTCCCTTTACAGTTCTGCAGTTCCATCACAGTATTTTTTAAATAACTCAGGTGTATGAGCAGAAATT
AGAAAAGAAAATTAACCTTATGTGGACTGTAAATGTTTTATTTGTAAGATTCTATAAATAAAGCTATATTCTGT

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FIGURE 783

RVYADAPAKLLLPPPAAWDLAVRLRGAEAAASERQVYSVTMKLLLLHPAFQSCLLLTLLGLWRTTPEAHASSLGAP
AISAASFLQDLIHYGEGDSLTLQQLKALLNHLDVGVGGRGNVTQHVGHRNLSTCFSSGDLFTAHNFSEQSRIGS
SELQEFCTILQQLDSRACTSENQENEENEQTEEGRPSAVEVWGYGLLCVTVISLCSLLGASVVPFMKKTIFYKRL
LLYFIALAIGTLYSNALFQLIPEAFGFNPLEDYYVSKSAVVFGGFYLFFFTEKILKILLKQKNEHHHGHSHYASE
SLPSKKDQEEGVMEKLQNGDLDHMIPQHCSSELDGKAPMVDEKVIVGSLSVQDLQASQSACYWLKGVRYSDIGTL
AWMITLSDGLHNFIDGLAIGASFTVSVFQGISTSVAILCEEFPHELGDVILLNAGMSIQQALFFNFLSACCCYL
GLAFGILAGSHFSANWIFALAGGMFLYISLADMFPENNEVCQEDERKGSILIPFIIQNLGLLTGFTIMVVLTMYS
GQIQIG

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FIGURE 784

GAATTCGGCACGAGCGAGTCGCGACGTCGTCGGCAAGCGGCCGCTTCCACGTAACGCGCGCCGGCGGGGGAGGG
CGTTGGCGCGGAGCCGACGGGAACGTCCGCGCTGCGGAGCAGGGCAGGGAAGCCGGGAGGCGGGCCCGCCCGAG
CTTGTCTTGTGCGCGAGGTACTCCGAGCACTATGTCGTCCCCGGCGTCGACCCGAGCCGCCGCGGCAGCCGGC
GTGGAAGGGCCACCCCGCCAGACGCCTCGGAGTGAGGATGCCAGGTCATCTCCCTCTCAGAGACGTAGAGGCG
AGGATTCCACCTCCACGGGGGAGTTGCAGCCGATGCCAACCTCGCCTGGAGTGGACCTGCAGAGCACTGCTGCGC
AGGACGTGCTGTTTTCCAGCCCTCCCAAATGCATTCTTCAGCTATCCCTCTTGACTTTGATGTTAGTTCACCAC
TGACATACGGCACTCCAGCTCTCGGGTAGAGGGAACCCCAAGAAGTGGTGTAGGGGCACACCTGTGAGACAGA
GGCCTGACCTGGGCTCTGCACAGAAGGGCTGCAAGTGGATCTGCAGTCTGACGGGGCAGCAGCAGAAGATATAG
TGGCAAGTGAGCAGTCTCTAGGCCAAAACTTGTGATCTGGGGAACAGATGTAAATGTGGCAGCATGCAAAGAAA
ACTTTCAGAGATTTCTTCAGCGTTTTATTGACCCTCTGGCTAAAGAAGAAGAAAATGTTGGCATAGATATTACTG
AACCTCTATACATGCAACGACTTGGGGAGATTAATGTTATTGGTGAGCAATTTTTAAATGTGAACGTGTGAACACA
TCAAATCATTGACAAAAATTTGTACAGACAACCTCATCTCTTACCCACAGGAAGTTATTCCAACTTTTGACATGG
CTGTCAATGAAATCTTCTTTGACCGTTACCCTGACTCAATCTTAGAACATCAGATTCAAGTAAGACCATTCAACG
CATTGAAGACTAAGAAATATGAGAAACCTGAATCCAGAAGACATTGACCAGCTCATCACCATCAGCGGCATGGTGA
TCAGGACATCCCAGCTGATTCCCAGATGCAGGAGGCCTTCTTCCAGTGCCAAAGTGTGTGCCACACGACCCGGG
TGGAGATGGACCGCGGCCGCATTGCAGAGCCAGTGTGTGCGGGCGCTGCCACACCACCCACAGCATGGCACTCA
TCCACAACCGCTCCCTCTTCTCTGACAAGCAGATGATCAAGCTTCAGGAGTCTCCGGAAGACATGCCTGCAGGGC
AGACACCACACACAGTTATCCTGTTTGCTACAATGATCTCGTTGACAAGGTCCAGCCTGGGGACAGAGTGAATG
TTACAGGCATCTATCGAGCTGTGCCTATTTCAGTCAATCCAAGAGTGAGTAATGTGAAGTCTGTCTACAAAACCC
ACATTGATGTCAATTCATTATCGGAAAACGGATGCAAACGCTCTGCATGGCCTTGATGAAGAAGCAGAACAGAAAC
TTTTTTCAGAGAAACGTGTGGAATTGCTTAAGGAACCTTTCAGGAAACCAGACATTTATGAGAGGCTTGCTTCAG
CCTTGGCTCCAAGCATTTATGAACATGAAGATATAAAGAAGGGAATTTTGCTTCAGCTCTTTGGCGGGACAAGGA
AGGATTTTAGTCACACTGGAAGGGGCAAATTTTCGGGTGAGATCAACATCTTGCTGTGTGGCGACCCTGGTACCA
GCAAGTCCCAGCTGCTGCAGTACGTGTACAACCTCGTCCCCAGGGGCCAGTACACGTCTGGGAAGGGCTCCAGTG
CAGTTGGCCTCACTGCGTACGTAATGAAAGACCCTGAGACAAGGCAGCTGGTCCTGCAGACAGGTGCTCTTGTC
TGAGTGACAACGGCATCTGCTGTATCGATGAGTTCGACAAGATGAATGAAAGTACAAGATCGGTATTGCATGAAG
TCATGGAACAGCAGACTCTGTCCATTGCAAAGGCTGGGATCATCTGTCAGCTCAATGCGCGCACCTCTGTCTGG
CAGCAGCAAAATCCCATAGTCTCAGTGGAATCCTAAAAAACAACCATTGAAAACATCCAGCTGCCTCATACTT
TATTATCAAGGTTTGATTTGATCTTCTCATGCTGGACCCTCAGGACGAAGCCTATGACAGGCGTCTGGCTCACC
ACCTGGTTCGCACTGTACTACCAGAGCGAGGAGCAGGCAGAGGAGGAGCTCCTGGACATGGCGGTGCTAAAGGACT
ACATTGCCTACGCGCACAGCACCATCATGCCGCGGCTAAGTGAGGAAGCCAGCCAGGCTCTCATCGAGGCTTATG
TAGACATGAGGAAGATTGGCAGTAGCCGGGAATGGTTTCTGCATACCCCTCGACAGCTAGAGTCATTAATCCGCT
TAGCAGAAGCCCATGCTAAAGTAAGATTGTCTAACAAAGTTGAAGCCATTGATGTGGAAGAGGCCAAACGCCTCC
ATCGGGAAGCTCTGAAGCAGTCTGCAACTGATCCCCGGACTGGCATCGTGGACATATCTATTCTTACTACGGGGA
TGAGTGCCACCTCTCGTAAACGGAAAGAAGAATTAGCTGAAGCATTGAAAAAGCTTATTTTATCTAAGGGCAAAA
CACCAGCTCTAAAAATACCAGCAACTTTTTGAAGATATTTCGGGGACAATCTGACATAGCAATTACTAAAGATATGT
TTGAAGAAGCACTGCGTGCCCTGGCAGATGATGATTTCCTGACAGTGACTGGGAAGACCGTGCGCTTGCTCTGAA
GCCTTGAGCAAGGAAGGCTCCCTGCATGTCTATGCAATTCTGCACGCCACATGGGTGTGGTCATGCAATCATCA
GTTGGCCGCCATCAGTGTAATAGAGCTTAAAGTCATGGTTTGGCTGCATAAAAAATTTTCTAACTTGGGTTCAA
TATTTGTAGTGAAGTATCTGTTTTTCAATTTTTTTCACGTTATAAATAAAAAATACTATGCTGGCCGGGCGCGGTGGC
TCACACCTGTAATCCCAGCACTTTGGGAGGCCAATGTGGGTGGATCATGAGGTCAGGAGTTCAAGACCAGCCTAG
CCAAGATGGTGAAACCCCGTCTCTAGTAAAGATAACAAAAAATTAGCTGGGCTTGATGGCATGCGCCTGTAATCC
CAGCTACTCGGGAGGTTGAGGCAGGAGATCGCTTAAACCCAGGCGGCAGAGGTTGCAGTGAGCCAAGATCGCGCC
ACTGCACTCCAGCCTCAGCAATAGAGTGAGACTGTCTCAAAAAAAAAA

FIGURE 785

IRHERVATSSASGRLPRNARRRGRALARSRRERPRCGAGQGSREAGPARACPCRAGTPSTMSSPASTPSRRGSRR
GRATPAQTPRSEDARSSPSQRRRGEDSTSTGELQPMPTSPGVDLQSTAAQDVLFSPPQMSSAIPLDFDVSSPL
TYGTPSSRVEGTPRSGVRGTPVRQRPDLGSAQKGLQVDLQSDGAAEDIVASEQSLGQKLVIWGTVDNVAACKEN
FQRFQRFIDPLAKEEENVGIDITEPLYMQRLGEINVIGEQLNVNCEHIKSF DNLYRQLISYPQEVIPTFDMA
VNEIFFDRYPDSILEHQIQVRPFNALKTKNMRNLNPEDIDQLITISGMVIRTSQLIPEMQEAFQCQVCAHTTRV
EMDRGRIAEPVCGRCHTTHSMALIHNRSLFSDKQMIKLQESPEDMPAGQTPHTVILFAHNDLVDKVQPGDRNV
TGIYRAVP IRVNPRVSNVKSVMYKTHIDVIHYRKTDAKRLHGLDEEAEQKLFSEKRVELLKELSRKPDIERLASA
LAPSIYEHEDIKKGILLQLFGGTRKDFSHGTGRGKFRAEINILLCGDPGTSKSQLLYVYNLVPRGQYTSKGSSA
VGLTAYVMKDPETRQLVLQTGALVLSDNIGCCIDEFDKMNESTRSVLHEVMEQQTSLIAKAGIICQLNARTSVLA
AANPIESQWNPCKTTIENIQLPHTLLSRFDLIFLMLDPQDEAYDRRLAHLVALYYQSEEQAEELLDMAVLKDY
IAYAHSTIMPRLSEEASQALIEAYVDMRKIGSSRGMVSA YPRQLESLIRLAEAHAKVRLSNKVEAIDVEEAKRLH
REALKQSATDPRTGIVDISILTTGMSATSRRKKEELAEALKKLILSKGKTPALKYQQLFEDIRGQSDIAITKDMF
EEALRALADDDFLTGTGKTVRLL

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FIGURE 786

GAATTCGGCACGAGCGAGTCGCGACGTCGTCGGCAAGCGGCCGCTTCCACGTAACGCGCGCCGGCGGGGGAGGG
CGTTGGCGCGGAGCCGACGGGAACGTCCGCGCTGCGGAGCAGGGCAGGGAAGCCGGGAGGCGGGCCCGGCCGAG
CTTGTCTTGTGCGCGAGGTACTCCGAGCACTATGTCTGTCGCGCGCTGCGACCCGAGCCGCCGCGGCAGCCGGC
GTGGAAGGGCCACCCCGCCAGACGCCTCGGAGTGAGGATGCCAGGTCATCTCCCTCTCAGAGACGTAGAGGCG
AGGATTCCACCTCCACGGGGGAGTTGCAGCCGATGCCAACCTCGCCTGGAGTGGACCTGCAGAGCACTGCTGCGC
AGGACGTGCTGTTTTCCAGCCCTCCCAAATGCATTCTTCAGCTATCCCTCTTGACTTTGATGTTAGTTTACCAC
TGACATACGGCACTCCAGCTCTCGGGTAGAGGGAACCCCAAGAAGTGGTGTAGGGGCACACCTGTGAGACAGA
GGCCTGACCTGGGCTCTGCACAGAAGGGCCTGCAAGTGGATCTGCAGTCTGACGGGGCAGCAGCAGAAGATATAG
TGGCAAGTGAGCAGTCTCTAGGCCAAAACCTTGTGATCTGGGGAACAGATGTAAATGTGGCAGCATGCAAAGAAA
ACTTTTCAAGATTTCTTCAGCGTTTTATTGACCTCTGGCTAAAGAAGAAGAAAATGTTGGCATAGATATTACTG
AACCTCTATACATGCAACGACTTGGGGAGATTAATGTTATTGGTGAGCAATTTTTAAATGTGAACGTGTGAACACA
TCAAATCATTGACAAAAATTTGTACAGACAACCTCATCTCTTACCCACAGGAAGTTATTCCAACTTTTGACATGG
CTGTCAATGAAATCTTCTTTGACCGTTACCTGACTCAATCTTAGAACATCAGATTCAAGTAAGACCATTCAACG
CATTGAAGACTAAGAATATGAGAAACCTGAATCCAGAAGACATTGACCAGCTCATCACCATCAGCGGCATGGTGA
TCAGGACATCCCAGCTGATTCCCGAGATGCAGGAGGCCTTCTTCCAGTGCCAAAGTGTGTGCCACACGACCCGGG
TGGAGATGGACCGCGGCCGATTGCAGAGCCAGTGTGTGCGGGCGCTGCCACACCACCCACAGCATGGCACTCA
TCCACAACCGCTCCCTCTTCTCTGACAAGCAGATGATCAAGCTTCAGGAGTCTCCGGAAGACATGCCTGCAGGGC
AGACACCACACACAGTTATCCTGTTTGCTACAATGATCTCGTTGACAAGGTCCAGCCTGGGGACAGAGTGAATG
TTACAGGCATCTATCGAGCTGTGCCTATTTCAGTCAATCCAAGAGTGAGTAATGTGAAGTCTGTCTACAAAACCC
ACATTGATGTCAATTCATTATCGGAAAACGGATGCAAACGCTCTGCATGGCCTTGATGAAGAAGCAGAACAGAAAC
TTTTTTTCAAGAAACGTGTGGAATTGCTTAAGGAACCTTCCAGGAAACCAGACATTTATGAGAGGCTTGCTTCAG
CCTTGGCTCCAAGCATTATGAACATGAAGATATAAAGAAGGGAATTTTGCTTCAGCTCTTTGGCGGGACAAGGA
AGGATTTTAGTCACACTGGAAGGGGCAAAATTCGGGCTGAGATCAACATCTTGCTGTGTGGCGACCCTGGTACCA
GCAAGTCCCAGCTGCTGCAGTACGTGTACAACCTCGTCCCCAGGGGCCAGTACACGCTCTGGGAAGGGCTCCAGTG
CAGTTGGCCTCACTGCGTACGTAATGAAAGACCCTGAGACAAGGCAGCTGGTCTGCAGACAGGTGCTCTTGTC
TGAGTGACAACGGCATCTGCTGTATCGATGAGTTGACAAGATGAATGAAAGTACAAGATCGGTATTGCATGAAG
TCATGGAACAGCAGACTCTGTCCATTGCAAAGGCTGGGATCATCTGTCAGCTCAATGCGCGCACCTCTGTCTGG
CAGCAGCAAAATCCCATTTAGTCTCAGTGGAATCCTAAAAAACAACCATTGAAAACATCCAGCTGCCTCATACTT
TATTATCAAGGTTTGATTGATCTTCTCATGCTGGACCCTCAGGACGAAGCCTATGACAGGCGTCTGGCTCACC
ACCTGGTGCACCTGTACTACCAGAGCGAGGAGCAGGCAGAGGAGGAGCTCCTGGACATGGCGGTGCTAAAGGACT
ACATTGCCTACGCGCACAGCACCATCATGCCGCGGCTAAGTGAGGAAGCCAGCCAGGCTCTCATCGAGGCTTATG
TAGACATGAGGAAGATTGGCAGTAGCCGGGAATGGTTTCTGCATACCTCGACAGCTAGAGTCATTAATCCGCT
TAGCAGAAGCCCATGCTAAAGTAAGATTGTCTAACAAAGTTGAAGCCATTGATGTGGAAGAGGCCAAACGCCTCC
ATCGGGAAGCTCTGAAGCAGTCTGCAACTGATCCCCGACTGGCATCGTGGACATATCTATTCTTACTACGGGGA
TGAGTGCCACCTCTCGTAAACGGAAGAAGAATTAGCTGAAGCATTGAAAAAGCTTATTTTATCTAAGGGCAAAA
CACCAGCTCTAAAAATACCAGCAACTTTTTGAAGATATTGGGGACAATCTGACATAGCAATTACTAAAGATATGT
TTGAAGAAGCACTGCGTGCCCTGGCAGATGATGATTTCCTGACAGTGACTGGGAAGACCCTGCGCTTGCTCTGAA
GCCTTGAGCAAGGAAGGCTCCCTGCATGTCTGCAATTCTGCACGCCACATGGGTGTGGTCATGCAATCATCA
GTTGGCCGCCATCAGTGTAATAGAGCTTAAAGTCATGGTTTGGCTGCATAAAAAATTTTCTAAGTTGGGTCAA
TATTTGTAGTGAAAGTATCTGTTTTTCAATTTTTTTCACGTTATAAAATAAAAAATACTATGCTGGCCGGGCGCGGTGGC
TCACACCTGTAATCCCAGCACTTTGGGAGGCCAATGTGGGTGGATCATGAGGTCAGGAGTTCAAGACCAGCCTAG
CCAAGATGGTGAAACCCCGTCTCTAGTAAAGATAACAAAAAATTAGCTGGGCTTGATGGCATGCGCCTGTAATCC
CAGCTACTCGGGAGGTTGAGGCAGGAGATCGCTTAAACCCAGGCGGCAGAGGTTGCAGTGAGCCAAGATCGCGCC
ACTGCACTCCAGCCTCAGCAATAGAGTGAGACTGTCTCAAAAAAAAAA

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FIGURE 787A

GCTAAGAGGAGTCCCTGTGTGGGCAGCTGGAGCCTTCAGATTCTCTTCAGGGGAAGAGTCCACATCCCACCTCAT
CATGTCCCGAAGAAGCCAGCGCCTCACGCGCTACTCCAGGGTGACGATGACGGCAGCAGCAGCAGCGGAGGGAG
CTCGGTGGCTGGGAGTCAGAGCACCTGTTTTAAAGACAGTCCTCTCAGGACCTTGAAGAGGAAATCCAGCAACAT
GAAGCGCTGTCCCAGCGCCACAGCTGGGCCCGTCTCTGATGCACACACCTCCTACTACAGTGAGTCGCTGGT
CCACGAGTCTTGGTTCCACCCAGGAGCTCCCTGGAGGAACTGCATGGTGACGCCAACTGGGGTGAGGACCTGCG
GGTGCGGAGGAGGAGAGGCACGGGTGGCTCAGAGAGCAGCAGGGCCAGCGGGCTTGTGGGGCGCAAGGCCACCGA
GGACTTCTGGGCTCTTCTCGGGCTACTCCTCTGAGGACGACTACGTGGGCTACTCGGATGTGGACCAGCAGAG
TTCCAGCTCGCGGCTCCGAAGCGCGTCTCACGGGCGGGCTCCTTACTCTGGATGGTGGCCACTTCGCCAGGCCG
GCTCTTCAGACTTCTCTACTGGTGGGCTGGCACCACCTGGTACCGCTGACCACAGCTGCCTCCCTCCTTGACGT
CTTCGTTTTAAACCAGGCGCTTCTCGTCCCTGAAGACGTTCTCTGGTTCCTGCTGCCGCTGCTCTTGCTGACGTG
CCTGACGTATGGTGCTTGGTATTTCTACCCCTATGGGCTGCAGACATTCCACCCTGCTTTGGTTTCTGGTGGGC
AGCGAAGGACAGCAGGAGGCCGGATGAGGGCTGGGAAGCCAGAGACTCATCGCCACATTTCCAGGCTGAGCAGCG
TGTTATGTCCCGGGTACACTCTCTGGAGCGGCGTCTGGAAGCTCTTGCTGCTGAATTTTCTCCAACTGGCAGAA
GGAGGCCATGCGGCTGGAACGTCTGGAGCTGCGGCAAGGGGCTCCTGGCCAGGGAGGTGGTGGTGGCCTGAGCCA
CGAGGACACCCTGGCGCTGCTGGAGGGGCTAGTGAGCCGCCGTGAAGCTGCCCTGAAGGAGGATTTCCGCAGGGA
AACTGCTGCTCGCATCCAGGAAGAAGTGTCTGCCCTGAGAGCAGAGCATCAGCAAGACTCAGAAGACCTCTTCAA
GAAGATCGTCCGGGCTCCAGGAGTCCGAGGCTCGCATCCAGCAGCTGAAGTCAGAGTGCCAAAGCATGACCCA
GGAGTCTTCCAGGAGAGCTCTGTGAAGGAGCTGAGGCGGCTGGAGGACCAGCTGGCCGGCCTGCAGCAGGAGCT
GGCGGCTCTGGCACTGAAGCAGAGCTCGGTGGCGGAAGAAGTGGGCCTGCTGCCCCAGCAGATCCAGGCCGTGCG
GGACGACGTGGAATCTCAGTTCCCGGCTGGATCAGTCAGTTCTTGGCCGAGGTGGAGGGGGCCGCGTGGGGCT
CCTTCAGAGAGAGGAGATGCAAGCTCAGCTGCGAGAGCTGGAGAGCAAGATCCTCACCCATGTGGCAGAGATGCA
GGGCAAGTCGGCCAGGGAAGCCGCGGCTCCTGAGCCTGACGCTGCAGAAAGAAGGTGTGATTGGAGTGACAGA
GGAGCAGGTGCACCACATCGTGAAGCAGGCCCTGCAGCGCTACAGTGAGGACCGCATCGGGCTGGCAGACTACGC
CCTGGAGTCAGGAGGGGCCAGCGTCATCAGCACCCGATGTTCTGAGACCTACGAGACCAAGACGGCCCTCCTCAG
CCTCTTCGGCATCCCCCTGTGGTACCACTCCAGTCACCCCGAGTCATCCTCCAGCCAGATGTGCACCCAGGCAA
CTGCTGGGCTTCCAGGGGCCACAGGGCTTCGCCGTGGTCCGCCTCTCTGCCCGCATCCGCCCCACAGCCGTAC
CTTAGAGCATGTGCCCAAGGCCTTGTACCCAAACAGCACTATCTCCAGTGCCCCCAAGGACTTCGCCATCTTTGG
GTTTGACGAAGACCTGCAGCAGGAGGGGACACTCCTTGCGCAAGTTCACTTACGATCAGGACGGCGAGCCTATTCA
GACGTTTCACTTTAGGCCCCCTACGATGGCCACGTACCAGGTGGTGGAGCTGCGGATCCTGACTAACTGGGGCCA
CCCCGAGTACACCTGCATCTACCGCTTCAGAGTGCATGGGGAGCCCCGCCACTAGCCCTGCTTACTGGTGCCTGC
TGCCAGCCATCTGGGAGTGGGTGAACAGCACCCCGCGCTTCCCCACACGCTTGCTCGGCGCTCTGACTTCTAG
GAGCACAAGAGAGGAGCCTGTGGCCCCATGCAGATGAAAAGGACGGGCAGGGTCTCCTGAGCAGCAGGTGGCTCG
AGGCGGTTAGCAGGCTCCAGCAGCTCCCTTCTTCTTCCCTCTGTGCCGTGGCGTCTGCTTCCCATCCTGGGAG
TGTGTATATATGTAGCATATCATGGGGACTGGGAAGTTGGGAGAGGTAGGACCTGACTGGTCTTGGCTGGGGTC
AGGGGCTGGTGCCTGGGAGCTGATGAAGCAGGTGCCAGGGCTGTGGGAGGGGCAAGCTACGGCCTGGGCTAGGTG
AGCTGCCTCTGCCCCTGGGCAAGGAAGCGAGGCCCTCTGGGAGGAGGTGCTTAGCTCCAGAGCAGGATGGGACT
TCCCCAGGCAGGAAGCACTTGATGGAGAGCTGCCAGCTCTCTACAAGGTTAGTGCCCTCCACCTAGGGAAGCC
TGAACCACAGGGTCCCTGAGGGCCTTCGACAAAAGTGTGTATTTGTCCCGGGAGGGTAGCAGTGGGCCATGGGG
CTTCTTGTCCTAAAGGGGACTGGCTGCTGTGATCTTCTAAGGGGCCAGGGCCAACCCTGTAGGCTTCCCCTC
TGCTGGGGACGGTAGTTGCTTTTCTCTCTCTCTGATGCTAGGTGGGGGCCACCCTGCTCCCTGTTCTCTGCTAGGG
CCTGCCAGTGCCCCCTGAGCTTGCTTTCCACATTCTCCAGGGTATGGAGACCTAGACCTGTCTTTGGGGCCATTA
GCATCTGGGGTTATAGCAAGAAGAGTGGGGAGCATGGAACCTCCTGGGCTCTTGTGGGGACGTTTCCAGGTATCGGG
GTGCGAGGTCTGTCTGCACCGCCCCCACATCTAACCCAGGCCCTGATGTAGGGGTGCTCCGCTCAGGCTGCCCCC
TTGGGCTCTTGACGCTCTTGTTTCCAGGTAGTCGCCCTTCTGGTTTGTCTCTGTGGGGCAGTTGGTGGGGGCTGGG
GGAAGAGGCTGGCAGAAGTTACCCTGGATAGGGAAGGGGGAGGAGGGGACTTTTAGAGCCAGCAGGCCCCACTGT
ATTATGTATATATTTTTCAAGGTCTGTTTTTCTAACTGAAAAGCTAAGGGCTTGATTCTAGCCCCGTTCTGTGG
GGCACTGGGTGATACTCAGTTTCTTGTTCCTGGCCGTGGAGAGGGGCTGGGGCACTGGTTCCGGCTGTGTCTGG
TGGTCCGGCTGCAGGGAAGGGCAAGAAGCGGGCAGGCCTTCACTGCAGCACTGAGCCTCAAATCCGCTCTGGA

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FIGURE 787B

GCATGAGGCTGGATGCAGTGGTGGTGAGGCCGCCCCGCTCCATCCCGAGGCAGCCAGGCTTTGTTTTGCGCTCTC
CTGTCACAAATGCTGCACTATTGGTTCTTAAGTTTTTTATCTCCAGATCCTAATTTATGCCTATGCAAAAAATAA
ATGACGCCCAAGAGCTG

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FIGURE 788

AGTTCTCACTGAGACCTGTCACCCCGACTCAACGTGAGACGCACCGCCCGGACTCACC**ATG**CGTGAATGCATCTC
AGTCCACGTGGGGCAGGCAGGTGTCCAGATGGGCAATGCCTGCTGGGAGCTCTATTGCTTGGAACATGGGATTCA
GCCTGATGGGCAGATGCCAGTGACAAGACCATTGGTGGAGGGGACGACTCCTTACCACCTTCTTCTGTGAAAC
TGGTGCTGAAAAACAGTACCCCGGGCAGTTTTTGTGGATCTGGAGCCTACGGTCATTGATGAGATCCGAAATGG
CCCATACCGACAGCTCTTCCACCCAGAGCAGCTCATCACTGGGAAAGAGGATGCTGCCAACAACTATGCCCGTGG
TCACTATAACCATTGGCAAGGAGATCATTGACCCAGTGCTGGATCGGATCCGCAAGCTGTCTGACCAGTGCACAGG
ACTTCAGGGCTTCCTGGTGTTCACAGCTTTGGTGGGGGCACTGGCTCTGGCTTCACCTCACTCCTGATGGAGCG
GCTCTCTGTTGACTATGGCAAGAAATCCAAGCTGGAATTCTCCATCTACCCAGCCCCCAGGTGTCTACAGCCGT
GGTCGAGCCCTACAACCTCTATCCTGACCACCCACACCACCTGGAGCACTCAGACTGTGCCTTCATGGTGGACAA
CGAAGCAATCTATGACATCTGCCGCCGCAACCTAGACATCGAGCGCCCAACCTACACCAACCTCAATCGCCTCAT
TAGCCAAATTGTCTCCTCCATCACAGCTTCTCTGCGCTTTGACGGGGCCCTCAATGTGGACCTGACAGAGTTCCA
GACCAACCTGGTGCCCTACCCTCGCATCCACTTCCCCCTGGCCACCTATGCACCAGTCATCTCTGCAGAAAAGGC
ATACCACGAGCAGCTGTCGGTGGCAGAGATACCAATGCCTGCTTTGAGCCTGCCAACCAGATGGTAAAGTGTGA
TCCCCGGGCACGGCAAGTACATGGCCTGCTGCCTGCTGTACCGTGGAGATGTGGTGCCCAAGGATGTCAACGCTGC
CATTGCCGCCATCAAGACCAAGCGCAGCATTTCAGTTTGTGGACTGGTGCCCCACAGGCTTCAAGGTTGGTATCAA
CTACCAGCCTCCCCTGTGGTGCCTGGGGGTGACCTGGCCAAGGTGCAGCGTGCCGTGTGCATGCTGAGCAACAC
GACCGCCATCGCCGAGGCCTGGGCCCCGCTGGACCACAAGTTCGACCTGATGTATGCCAAGAGGGCGTTTGTGCA
CTGGTATGTGGGTGAGGGCATGGAGGAGGGTGAGTTCTCCGAGGCCCGTGAGGATATGGCTGCCCTGGAGAAGGA
TTATGAGGAGGTGGGCATCGACTCCTATGAGGACGAGGATGAGGGAGAAGAA**TAA**AGCAGCTGCCTGGAGCCTAT
TCACTATGTTTATTGCAAAATCCTTTCGAAATAAACAGTTTCCTTGACGGTTAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAA

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FIGURE 789

MRECISVHVGQAGVQMGNACWELYCLEHGIQPDGQMPSDKTIGGGDDSFITFFCETGAGKHVPRAVFVDLEPTVI
DEIRNGPYRQLFHPEQLITGKEDAANNYARGHYTIGKEIIDPVLDRIKLSQCTGLQGFLVFHSFGGGTGSGFT
SLLMERLSVDYGKSKLEFSIYPAPQVSTAVVEPYNSILTTHTTLEHSDCAFMVDNEAIYDICRRNLDIERPTYT
NLNRLISQIVSSITASLRFDGALNVDLTFQTNLVPYPRIHFPLATYAPVISAEKAYHEQLSVAEITNACFEPAN
QMVKCDPRHGKYMACCLLYRGDVVPKDVNAIAAIAIKTKRSIQFVDWCPTGFKVGINYQPPTVVPGGDLAKVQRAV
CMLSNTTAAEAWARLDHKFDLMYAKRAFVHWYVGEGMEEGEFSEAREDMAALEKDYEYEVGIDSYEDEDEGEE

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FIGURE 790

GACCGAAGCAAGAGCTGGTTTCAGGTGGCAGCCACAGCAGCCTCAGGGACCTCAGCAACT**ATG**GCCTCCTGCCCAG
ACTCTGATAATAGCTGGGTGCTTGCTGGCTCCGAGAGCCTGCCAGTGGAGACACTGGGCCCCGCATCCAGGATGG
ACCCAGAATCTGAGAGAGCCCTGCAGGCCCCCTCACAGCCCCCTCAAGACAGATGGGAAAGAATTAGCTGGGACCA
TGGATGGAGAAGGGACGCTCTTCCAGACTGAAAGCCCCCAGTCTGGCAGCATTCTAACAGAGGAGACTGAGGTCA
AGGGCACCCCTGGAAGGTGATGTTTGTGGTGTGGAGCCTCCTGGCCCAGGAGACACAGTAGTCCAGGGAGACCTGC
AGGAGACCACCGTGGTGACAGGCCTGGGACCAGACACACAGGACCTGGAAGGCCAGAGCCCTCCACAGAGCCTGC
CTTCAACCCCCAAAGCAGCTTGGATCAGGGAGGAGGGCCGCTGCTCCAGCAGTGACGATGACACCGACGTGGACA
TGGAGGGTCTGCGGAGACGGCGGGGCCGGGAGGCCGGCCACCTCAGCCCATGGTGCCCTGGCTGTGGAGAACC
AGGCTGGGGGTGAGGGTGCAGGCGGGGAGCTGGGCATCTCCCTCAACATGTGCCTCCTTGGGGCCCTGGTTCTGC
TTGGCCTGGGGGTCTCTCTCTCTCAGGTGGCCTCTCAGAGTCTGAGACTGGGCCCATGGAGGAAGTGGAGCGGC
AGGTCTCTCCAGACCCCCAGGTGCTGGAAGCTGTGGGGGACAGGCAGGATGGGCTAAGGGAACAGCTGCAGGCCC
CAGTGCCCTCCTGACAGTGTCCCCAGCCTGCAAAACATGGGTCTTCTGCTGGACAAGCTGGCCAAGGAGAACCAGG
ACATCCGGCTGCTGCAGGCCCAGCTGCAGGCCCAAAAGGAAGAGCTTCAGAGCCTGATGCACCAGCCCCAAAGGGC
TAGAGGAGGAGAATGCCAGCTCCGGGGGGCTCTGCAGCAGGGCGAAGCCTTCCAGCGGGCTCTGGAGTCAGAGC
TGCAGCAGCTGCGGGCCCCGGCTCCAGGGGCTGGAGGCCGACTGTGTCCGGGGCCCAGATGGGGTGTGCCTCAGTG
GGGGTAGAGGCCACAGGGTGACAAGGCCATCAGGGAGCAAGGCCCCAGGGAGCAGGAGCCAGAACTCAGCTTCC
TGAAGCAGAAGGAACAGCTGGAGGCTGAGGCACAGGCATTAAGGCAAGAGTTAGAGAGGCAGCGACGGCTGCTGG
GGTCTGTACAGCAGGATCTGGAGAGGAGCTTGCAGGATGCCAGCCGCGGGACCCAGCTCATGCTGGCTTGGCTG
AGCTGGGCCACAGATTGGCCCAGAACTGCAGGGCCTGGAGAACTGGGGCCAGGACCCTGGGGTCTCTGCCAATG
CCTCAAAGGCCTGGCACCAGAAGTCCCACCTTCCAGAATTCTAGGGAGTGGAGTGGAAAGGAAAAGTGGTGGGATG
GGCAGAGAGACCGGAAGGCTGAGCACTGGAAACATAAGAAGGAAGAATCTGGCCGGGAAGGAAGAAGAAGTGGG
GAGGTGAGGAGGACAGGGAGCCAGCAGGAAGGTGGAAGGAGGGCAGGCCAAGGGTGGAGGAGTCGGGGAGCAAGA
AGGAGGGCAAGCGACAGGGCCCCGAAGGAACCCCCAAGGAAAAGTGGTAGCTTCCACTCCTCTGGAGAAAAGCAGA
AGCAACCTCGGTGGAGGGAAGGGACTAAGGACAGCCATGACCCCCTGCCATCCTGGGCAGAGCTGTTGAGGCCCA
AGTACCGGGCACCCCAGGGCTGCTCAGGTGTGGACGAGTGTGCCCCGGCAGGAGGGCCTGACTTTCTTTGGCACAG
AGCTAGCCCCAGTGCGGCAACAGGAGCTGGCCTCTCTGCTAAGAACATACTTGGCACGGCTGCCCTGGGCTGGGC
AGCTGACCAAGGAGCTACCCCTCTCACCTGCTTTCTTTGGTGAGGATGGCATCTTCCGTATGACCGCCTCCGCT
TCCGGGATTTTGTGGATGCCCTGGAGGACAGCTTGGAGGAGGTGGCTGTGCAACAGACAGGTGATGATGATGAAG
TAGATGACTTTGAGGACTTCATCTTCAGCCACTTCTTTGGAGACAAAGCACTGAAGAAGAGGTGAGGGAAGAAGG
ACAAGCACTCACAGAGCCCCAAGAGCTGCGGGGCCAGGGAGGGGCACAGCCATAGCCACCACCACCACCACCGGG
GCT**TGAC**ACCCCTGCCCCACAGGGAATGGCCTTGGCCTGGCCCAGCCCCAAGATCCCAGCGTTATCTAACTCCTGGAG
GGTGGACTCTGTCTCTGGCTTGTTTGGTGTCTCAGATATCTTTCACACAGTAGAGCAAAATCACCAGCCCTGCAC
TGATGTCACTTTATGTAGAAAAAGGCCTTAGCTGGACCTGCGTTGCCGTCTATGCAAATGCATGCAAATACTCCA
GGCCCTGGGATGTGGGCTTGTTTGTCTACTGTGAAGGGGGAGATGGGAGAGGAGCCTGTTTTGGGGTGGGGTC
TGGGGAAGGCAATCTGATTCTGAAGCTAAAGAGCTTTCATCCTCTTGAGTGTATGTCCCCATAGTGGGCCCCCTG
ACCCACATGCTGACCGGTGCCCTGGGATTTGACTAGAGTTGCTGGCTCGAGGCCCAGCACGAGGACTTACCCTGG
GGTTTTGTTAGGTTTGAAGCAGCTGTCCCTAGGGGGTGAAGTCCCCCCCCCTTTTTTTTTTACCCTGCTTCTC
CCACGGCTTACCTCCCTATGTGAAGTGTAGACTCAGATCCCAATAAAGTGCTGTTGCAGCTATGATGCTAGGTG
GTTTCTAAGCACAGGGGACACCCACACCCCTGCCTGAATGGATGGGTCCATCCCAGGCACTGGTACTTGCCCC
CTTGTTCTGTATCCCCCTTTGCCCTTGCCCTTGCCCTTCCAACAAACCCTAGGCCCTTGAGAAGCTGATACTTCTC
CTTTTGCTCACAGCTGCCTTGGCCCCACCCCTGGGAGATGTAGCAAAATTGAGTGTGGGTTTTGGAGTCTGAGCCT
CAGGCTCAAAATCCAGGCCAAGTGATCTTGGGCAAGTTAATCTCTGGGAACTTTGGGTTTCTTATCTCAAAAAAG
GCGATGGAAGGGCTGGGGAAGTGATTAAATAAAAGCAACGCAAGAAAAA

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FIGURE 791

MASCPDSDNSWVLAGESESLPVETLGPASRMDPESEERALQAPHSPSKTDGKELAGTMDGEGTLFQTESPQSGSILT
EETEVKGTLEGDVCGVEPPGPGDTVVQGDLETTVVVTGLGPDQDLEGQSPPQSLPSTPKAAWIREEGRCSSDD
DTDVDMEGLRRRRRGREAGPPQPMVPLAVENQAGGEGAGGELGISLNMCLLGALVLLGLGVLLFSGGLSESETGPM
EEVERQVLPDPEVLEAVGDRQDGLREQLOAPVPPDSVPSLQNMGLLLDKLAKENQDIRLLQAQLQAQKEELQSLM
HQPKGLEENALRGALQQGEAFQRALESELQQLRARLQGLEADCVRGPDGVCLSGGRGPQGDKAIREQGPREQE
PELSFLKQKEQLEAEALRQELERQRRLLGSVQDQLERSLQDASRGDPAHAGLAELGHRLAQKLQGLLENWGQDP
GVSANASKAWHQKSHFQNSREWSGKEKWWDGQDRKAHWHKKKEESGREKKNWGGQEDREPAGRWKEGRPRVE
ESGSKKEGKRQGPKEPPRKSGSFHSSGEKQKQPRWREGTKDSDPLPSWAELLRPKYRAPQGCSGVDECARQEG
TFFGTAPVRQQELASLLRTRYLARLPWAGQLTKELPLSPAFFGEDGIFRHDRLRFRDFVDALEDSLEEVAVQQT
GDDDEVDDFEDFIFSHFFGDKALKKRSGKKDKHSQSPRAAGPREGHSHSHHHHHRG

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FIGURE 792

CTCTTCTCACATCAGCGGGTCCAGGCCCAACCGACAGACTATGGGGGCTCCTTCACCAGGCGCTGCGTGGAGTGG
CTGCTGGGCTCTACTTCCTCAGCCACATCCCCATCACCTGTTTCATGGACCTGCAGGCGGTCTGCGCGCGAG
CTCTACCCAGTCGAGTTTAGAAACCTGCTGAAGTGGTATGCTAAGGAGTTCAAAGACCCACTGCTACAGGAGCCC
CCAGCCTGGTTTAAGTCCTTTCTGTTTTGCGAGCTTGTGTTTCAGCTGCCTTTCTTTCCATTGCAACGTATGCC
TTCCTCAAAGGAAGCTGCAAGTGGATTTCGAACCTCTGCAATCATCTACTCTGTTCACACCATGACAACCTTAATT
CTGATACTCTCCACATTTCTGTTTGAGGATTTCTCCAAAGCCAGTGGTTTCAAGGGACAAAGACCTGAGACTTTG
CATGAACGGTTAACCCTTGTGTCTGTCTATGCCCCCTACTTACTCATCCATTCTACTTTTAATTTTCATGTTG
CGGAGCCCCCTACTACAAGTATGAAGAGAAAAGAAAAAATGAAGGAAACAACCACTGGCCCCAGGGTAGAGAT
GCCTACAGGGTGGTTGCTTGTGGATACATACAGGAACACTGCTCAGAACCCACGTCTTCAGCAGCATTGAAAC
ACTGGCAGCAATGCACAAGAGCAAGATGGTGTGAGGAACCATGTCAAACCTCACCTTCTTCCATTTTTTTTTTT
TTTTTGAGACAGTCTCACTCTGTTGCCAGGCTGGAGTAAAGGGCAGTGGCATGATCTCGGCTCACTGCAACCTCC
GCCTCCTGGGCTCAAGCCATCTTCCTTAGCCTCCCAAGTAGCTAGAACTACAGGTGTGTACCAACACGTATGGCT
AATTTGTTTTGTTTTTTTTTGTGTGTGTGGAGACAGGGTTTTGCCATGTTGCCAGGTTGGTCTCGAACGCCTAGG
CTCAAGTGATCTGCCACCTCAGTCTCCCTAAGTGCTGGGATTACAGACGTGAACCACTGGGCCCAGCCCCAAACC
TTCACCTTCTAAGGGCACTGGGATGAACAGACCGATCGGCCTTGAGGGTGGGCAAAGGGGTGTGGGCTAGGTTATA
AGGAAGTGGTACCAAATAACTGTGTTCCTGAGTTCCACCGCAAGATTACTAAAAGCAGGACCAGACCAGAACT
GCTAAAGAACATGGCCTGTTTGACATGTTTCATGAGTCACCTGACCCACAGCATATATGCTTATGACTAAACCTC
CACTCCTGATTCTCAAGAGTGTATCACCTGTCAGCAAAATGAATAGTGGGATATTTTGGGCCATTTTAAATGTGA
AATTTGCCTCTTTAATGTTAATTCAAACTATATCAATGTTTTCTTGTTCACCTCTAACCAAGGAAAAAAG
AGAAAACATACTATGCAAAGGAAGTTTAACTTAAGTTTTCTTAAGGGTCAGCCCAACAATGACTTTCAGTCAA
ATGGATTAACTGGAAAATGTTTTGTTTTCTGTTGTAAACAGATCATCCTAGGCGAAAGTTTTTTTTGTTTGT
GCTTTTAAATTAGTTTATTTCTAAATCTTAGTCTTCCACATTTCTAGAGGCCACCTGACACAAGTCCCTGTATCT
GAAGTCTAGCATCTCAAGGCTGATCTGGAAGTGTGCTAGTATGCTCCCTAGTGGATAACTTAATCTTTAATACA
GTTCCGTCATTCCCATCTTGTTTTCAGAAGAGAAGGTGGCTACAGCCAGGCATACTTATCCACTGTGTGCATAG
AGGGTCTCTTCAGTTGATGCTTGGCATTCCATCAGCTTTCTCTAAGTCTTTGCTCAAGTTCAAGGTTAAATGA
TGTTAGACAACAGGTCCAGTCAGTCCCTCTATTTTCACCCATTTTGCTCACAAGCCATATTGGCCCCGATTAGT
GGTACTGTCTGACTCACGTGTGTGATCCAAATAAAGGTAGCTGCCGGAATT

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FIGURE 793

CTCTTCTCACATCAGCGGGTCCAGGCCCAACCGACAGACTATGGGGGCTCCTTCACCAGGCGCTGCGTGGAGTGG
CTGCTGGGCCTCTACTTCCTCAGCCACATCCCCATCACCCTGTTTCATGGACCTGCAGGCGGTGCTGCCGCGCGAG
CTCTACCCAGTCGAGTTTAGAAACCTGCTGAAGTGGTATGCTAAGGAGTTCAAAGACCCACTGCTACAGGAGCCC
CCAGCCTGGTTTAAGTCCTTTCTGTTTTGCGAGCTTGTGTTTCAGCTGCCTTTCTTTCCCATTTGCAACGTATGCC
TTCCTCAAAGGAAGCTGCAAGTGGATTTCGAACTCCTGCAATCATCTACTCTGTTTCACACCATGACAACCTTAATT
CTGATACTCTCCACATTTCTGTTTGAGGATTTCTCCAAAGCCAGTGGTTTCAAGGGACAAAGACCTGAGACTTTG
CATGAACGGTTAACCCTTGTGTCTGTCTATGCCCCCTACTTACTCATCCCATTCATACTTTTAATTTTCATGTTG
CGGAGCCCCCTACTACAAGTATGAAGAGAAAAGAAAAAATGAAGGAAACAACCACTGGCCCAGGGTAGAGAT
GCCTACAGGGTGGTTGCTTGTGGATACATACAGGAACACTGCTCAGAACCACGCTTCAGCAGCATTTGAAAC
ACTGGCAGCAATGCACAAGAGCAAGATGGTGTGAGGAACCATGTCAAACCCTCACCTTCTTCCATTTTTTTTTT
TTTTTGAGACAGTCTCACTCTGTTGCCAGGCTGGAGTAAAGGGCAGTGGCATGATCTCGGCTCACTGCAACCTCC
GCCTCCTGGGCTCAAGCCATCTTCCTTAGCCTCCCAAGTAGCTAGAACTACAGGTGTGTACCAACACGTATGGCT
AATTTGTTTTGTTTTTTTTTGTGTGTGTGGAGACAGGGTTTTGCCATGTTGCCAGGTTGGTCTCGAACGCCTAGG
CTCAAGTGATCTGCCCACCTCAGTCTCCCTAAGTGCTGGGATTACAGACGTGAACCACTGGGCCCAGCCCAAACC
TTCACCTTCTAAGGGCACTGGGATGAACAGACCGATCGGCTTGAGGGTGGGCAAAGGGGTGTGGGCTAGGTTATA
AGGAAGTGGTACCAAATAACTGTGTGCCTGAGTTCACCGCAAGATTACTAAAAGCAGGACCAGACCAGAACT
GCTAAAGAACATGGCCTGTTTGACATGTTTCATGAGTCACCTGACCCACAGCATATATGCTTATGACTAAACCTC
CACTCCTGATTCTCAAGAGTGATCACCTGTGAGCAAAATGAATAGTGGGATATTTTGGGCCATTTTAAATGTGA
AAATTTGCCTCTTTAATGTTAATTCAAACCTATATCAATGTTTTCTTGTTCACCTCTAACCCAAGGAAAAAAG
AGAAACATACTATGCAAAGGAAGTTTAACTTAAGTTTTCTTAAGGGTCAGCCCAACAATGACTTTTCAGTCAA
ATGGATTAAACTGGAAAATGTTTTGTTTTCTGTTGTAAACAGATCATCCTAGGCGAAAGTTTTTTTTGTTTGT
GCTTTTAAATTAGTTTATTTCTAAATCTTAGTCTTCCACATTTCTAGAGGCCACCTGACACAAGTCCCTGTATCT
GAAGTCTAGCATCTCAAGGCTGATCTGGAAGTGTGCTAGTATGCTCCCTAGTGGATAACTTAATCTTTTAATACA
GTTCCGTCATTCCCATCTTGTTCAGAAAGAGAAGGTGGCTACAGCCAGGCATAACTTATCCACTGTGTGCATAG
AGGGTCTCTTCAGTTGATGCTTGGCATTCCATCAGCTTTCTCTAAGTCTTTGCTCAAGTTCAAGGTTAAATGA
TGTTAGACAACAGTCCCAGTCAGTCCCCTCTATTTTACCCATTTTGTCTCACAAGCCATATTGGCCCGATTAGT
GGTACTGTCTGACTCACGTGTGTGATCCAAATAAAGGTAGCTGCCGGGAATT

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FIGURE 794

LFHQRVQAQPTDYGGSETRRCVEWLLGLYFLSHIPITLFMDLQAVVPRELYPVEFRNLLKWYAKEFKDPLLQEP
PAWFKSFLFCELVFQLPFFPIATYAFLKGSKWIRTPAIIYSVHTMTTLILILSTFLFEDFSKASGFKGQRPETL
HERLTLVSVYAPYLLIPFILLIFMLRSPYYKYEEKRKKK

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FIGURE 795

ATGTGGCTTCATCGAGTATTCCTTTGTGAATTCCTGGATGAAATTTTCAAGGCAAACAGGAAAAGCACTGAAATT
GCTGAATGGTGGCGAACGGAGCCACGAGGGAAGGGAGCGCCGCCGCGAGCTGCCGGGACACCAGGATACCACGCG
GCCAGCACCGAAACGCTAGGCTCGCGCTCACAACCGCAATCTACACTGAGTAGCCGCGCGCCGAACGGCGTGACT
AAGCCCCGCCCACACGGCGCTCCTGGCGGCCAATGGAATGGCTTACGAGACGCCTTCTCCACGCGCTATACTTA
TACGGACCAATGGGTGCGCCCTGTGGGGAGTGCCGCCCCCTGTCCACGAGCCTCCTCTTCTCGCCAGCCAATGGA
AGCGGTCTGCCTAGCCCTCGCGGGGGCAAGGCGGCGACCGAGGCGCGTGGGTCTGGGAAGGCGCGCGGATTTGGC
CTCTTCTCACATCAGCGGGTCCAGGCCCAACCGACAGACTATGGGGGCTCCTTCACCAGGCGCTGCGTGGAGTGG
CTGCTGGGCCTCTACTTCCTCAGCCACATCCCCATCACCTGTTCATGGACCTGCAGGCGGTGCTGCCGCGCGAG
CTCTACCCAGTCGAGTTTAGAAACCTGCTGAAGTGGTATGCTAAGGAGTTCAAAGACCCACTGCTACAGGAGCCC
CCAGCCTGGTTTTAAGTCCTTTCTGTTTTGCGAGCTTGTGTTTCAGCTGCCTTTCTTTCCATTGCAACGTATGCC
TTCTCAAAGGAAGCTGCAAGTGGATTGCAACTCCTGCAATCATCTACTCTGTTACACCATGACAACCTTAATT
CTGATACTCTCCACATTTCTGTTTGAGGATTTCTCCAAAGCCAGTGGTTTCAAGGGACAAAGACCTGAGACTTTG
CATGAACGGTTAACCCTTGTGTCTGTCTATGCCCCCTACTTACTCATCCCATTCATACTTTTAATTTTCATGTTG
CGGAGCCCCCTACTACAAGTATGAAGAGAAAAGAAAAAAAAA**TGA**AGGAAAACAACCACTGGCCCAGGGTAGAGAT
GCCTACAGGGTGGTTGCTTGTGTGGATACATACAGGAACACTGCTCAGAACCACGCTCTCAGCAGCATTTTGAAC
ACTGGCAGCAATGCACAAGAGCAAGATGGTGTGAGGAACCATGTCAAACCCTCACCTTCTTCCATTTTTTTTTT
TTTTTGAGACAGTCTCACTCTGTTGCCAGGCTGGAGTAAAGGGCAGTGGCATGATCTCGGCTCACTGCAACCTCC
GCCTCCTGGGCTCAAGCCATCTTCCTTAGCCTCCCAAGTAGCTAGAACTACAGGTGTGTACCAACACGTATGGCT
AATTTGTTTTGTTTTTTTTGTGTGTGTGGAGACAGGGTTTTGCCATGTTGCCCAGGTTGGTCTCGAACGCCTAGG
CTCAAGTGATCTGCCACCTCAGTCTCCCTAAGTGCTGGGATTACAGACGTGAACCACTGGGGCCAGCCCCAACC
TTCACCTTCTAAGGGCACTGGGATGAACAGACCGATCGGCTTGAGGGTGGGCAAAGGGGTGTGGGCTAGGTTATA
AGGAAGTGGTACCAATAACTGTGTTGCCTGAGTTCCACCGCAAGATTACTAAAAGCAGGACCAGACCAGAACT
GCTAAAGAACATGGCCTGTTTGACATGTTTCATGAGTCACCTGACCCACAGCATATATGCTTATGACTAAACCCTC
CACTCCTGATTCTCAAGAGTGATCACCTGTGAGCAAAATGAATAGTGGGATATTTTGGGCCATTTTAAATGTGA
AATTTTGCCTCTTTAATGTTAATTCAAACTATATCAATGTTTTCTTGTTCACCTCTAACCCAAGGAAAAAAG
AGAAAACATACTATGCAAAGGAAGTTTAACTTAAGTTTTCTTAAGGGTCAGCCCAACAATGACTTTTCAGTCAA
ATGGATTAAACTGGAAAATGTTTTGTTTTCTGTTGTAAACAGATCATCCTAGGCGAAAGTTTTTTTTGTTTGT
GCTTTTAAATTAGTTTATTTCTAAATCTTAGTCTTCCACATTTCTAGAGGCCACCTGACACAAGTCCCTGTATCT
GAAGTCTAGCATCTCAAGGCTGATCTGGAAGTGTGCTAGTATGCTCCCTAGTGGATAACTTAATCTTTTAATACA
GTTCCGTCATTCCCCTCTTGTTCAGAAAGAGAAGGTGGCTACAGCCAGGCATAACTTATCCACTGTGTGCATAG
AGGGTCTCTTACGTTGATGCTTGGCATTCCATCAGCTTTCTCTAAGTCTTTGCTCAAGTTCAAGGTTAAATGA
TGTTAGACAACAGTCCAGTCAGTCCCTCTATTTTCACCCATTTTGTCTACAAGCCATATTGGCCCGATTAGT
GGTACTGTCTGACTCACGTGTGTGATCCAAATAAAGGTAGCTGCCGGGAATT

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FIGURE 796

MWLHRVFLCEFLDEIFKANRKSTEIAEWWRTEPRGKGAPPAAAGTPGYHAASTETLGSRSQPQSTLSSRAPNGVT
KPRPHGAPGGQWKWLTRRLHLYLYGPMGAPCGECRPLSTSLLFSPANGSGLPSRGGKAATEARGSGKARGFG
LFSHQRVQAQPTDYGGSFTRRCVEWLLGLYFLSHIPITLFDLQAVVPRELYPVEFRNLLKWYAKEFKDPLLQEP
PAWFKSFLFCELVFQLPFFPIATYAFKLGSKWIRTPAIYISVHTMTLILILSTFLFEDFSKASGFKGQRPETL
HERLTLVSVYAPYLLIPFILLIFMLRSPYYKYEKRKKK

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FIGURE 797

GGCTTACAGGAGGGCAGCTCTGCAGTTGGGAGGGGCACCGTCCGGAGGAGACCAGGCCTCTACACACCCCCCACT
CTACTTATCATCCCTGCTCACACACCCTTGTCGAAGGCTTTATGCATCGGATTTATTTTTCCAAATCAAGAGGAC
AGTGATAGATGCATTTTCCCCAGGCTGTCTCAGAAAGGTCGCTAAATGTATACTGTTGTCAGAATTGCTGAGATC
TCCCCCACTTTTGGTTTTTGCAGCAGTAAAACTCTTTCCACTGTGACTTATTTTCTCTCTCAGGCAGCCAGCC
ACCTGGTCCCTTGCTGCTGACTCTAGCACAGTGGCCAGGATCCAATACGAGTCCAGGGGTGACCGCAGGATGGTGG
GGGCAGCGGGCTTCTCCACCTACCCAGCCACCAAGGCCCTGACGCACTGCCTCCTGCACCTTCAGCACATCCCT
GTGCACAGCTGGAAGGGTGCATGGCCCGCTCACCTTTGTTTCAGATGGGTGGAAACGCTGATGATACCAGCTCCTC
CCTGCCGTGCCCTGCCACGGAGCAGGCATTGTGAAGTGGCTGGTGTGTCAGTCCCACGTGGCATGGCCTCCAG
CCCAACCCACAGTGGAGACTGGAGACAGGGCAATGAGTCTGGTCGGGGGCACGTGGACATGCCCCATAGGGGGCC
CACCCAGACTTAACAGGCAAGGTCTGGGCATTGCGCGACGCAGGACTCAATGCTAAAGCAAGCCTGCCTGGCTC
TGTGCCAGGGCCCCCTCTTCTGATTTACACATCCCATTTTTACACAGACCCTTCCTTCTTAATAAAGGCTGACAGT
TCTGTTGGCAGCCAAGAACCCACACCATGAAGACAGGGAGTGAGGGGGCCTTTGTGCCAACTCCAGCACAGCTGC
GTTCTGGGGTGTGTGAGAGGCATGTTTCGTGTCTGTGCGCTGGTGGTCTCGTGAGACAGTTCGAGGACGGGGAAA
TTGCAGGGTGGTGGGGCGTGAGGCTTATATGTGGAAGTGTGTCAGAGTTCGCCTGCAGACGGATCTGGATATAC
ACTATGTATAATTGTTACGTGTAATTTAAATATATCTGTTTGCCATCGTCATGAGAAGATTATATGTAAGGCTC
TGAAGGGAGAGGGAGATGTACATTCTGCCAGGCTCCTGGGGACCTTATCCGAGTCATGAAATTGATGACTGTTGA
TCCAGTGGTGCAAGAAGCTACACTCCATGTGTTCATCACGCTTATTGACTCCTAATGTATTTTTAAGGCAAAAAATG
TCAGCCGACTCCATCTTCACCCCTCGATTCTCGAGTCCAGCCTTTCTGTGCCAGTGCTTCAGTGAGCCACAACG
CTCTCGCCATCGGGACCCGGCTGGGCCTGGAGTCTCGGGGCACAGTTGCCATGGAGCCCTCCTGGGTCATTCTAC
AAATGTGCTGAGTGCCAGCTGAAAACCCACAGGAGATGGAGTACCTTGCCAAAGCTTAAAGAGAAGATTTTCTC
AGGGTATTTATTAGTGTGTCCAGCAGGGTCAGGAAGCAGGATGGAAAGATGCATTACAGACTGTTAATTTATTAAC
AAGGCAATGATTTTTGTGTTTCTTGATGACAGACTATTAAGTTGGGACTTATTTTCCATTTGAGAAGTTATAA
TATATATTTAAGATGATAAGTTTCCTGCTTAAGTTGTGCCTTTCAGCTTCAATGAGTTAAGGAGCACTAAGGGT
AATGATACCAATGAGGGTTGGTTTATTATCAAACCTGAATAGCTGTGGTTTCTCCAGTAAATATTTTCTTCTACT
GAACATGGAGCCATTATTAAGAGTTGTGTGTTTTTATTATGTACATTTGTATATTTTTTTGCTTGTTTGATGTT
CTATTTTTCTAATAGTTTTCTTTTAGTTTTCTTAAAGTTGTGATACTAGATTTAGATTCTGATGCTAACTGCAAT
CAGGTTGGTCTCTGCTGGGTCTCTCCTGCTTTTTATTTTACTTTAAGGACAAGTGTAGTTGTGTCGCCACCACCTTT
CAAAAAATGTGAACTGCCCTGCCTCCCTTTTTGCTGACAACACTGTGTACATTGACCACTTCCTACCATACTT
TATGTTGTAAATCAAACCTTTTTGTGGTACATTATCTCATGCTTCTGCAATTCGAATAAATTCTATGGCTTCC
AAAAAAAAAAAAAAAA

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FIGURE 798

MKLMTVDPVVQEATLHVSSRL

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FIGURE 799

GCGTCACCACAGAGGCAAGACAAGGGTCCATATCGCGGCATCCGGCTCCCGCCCGTCTTCAGGAGAGAAAGAAAA
AATAAAATATACTTGGGGAAGTTGTACCTGCCAGAATTAGTAAGAGCTTTCTTTAAGAAGACATTTGTCAAACCTC
AACAAATTGAAGGTTAACACCTTAAGAGTTGTAGTTACTGACCAGAAATATGGACAGACTTCTTAGACTTGGAGG
AGGTATGCCTGGACTGGGCCAGGGGCCACCTACAGATGCTCCTGCAGTGGACACAGCAGAACAAGTCTATATCTC
TTCCCTGGCACTGTTAAAAATGTTAAAACATGGCCGTGCTGGAGTTCCAATGGAAGTTATGGGTTTGATGCTTGG
AGAATTTGTTGATGATTATACCGTCAGAGTGATTGATGTGTTTGCTATGCCACAGTCAGGAACAGGTGTCAGTGT
GGAGGCAGTTGATCCAGTGTTCAGCTAAAATGTTGGATATGTTGAAGCAGACAGGAAGGCCGGAGATGGTTGT
TGGTTGGTATCACAGTCACCCTGGCTTTGGTTGTTGGCTTTCTGGTGTGGATATCAACACTCAGCAGAGCTTTGA
AGCCTTGTCGGAGAGAGCTGTGGCAGTGGTTGTGGATCCCATTGAGAGTGTAAGGAAAGGTTGTTATTGATGC
CTTCAGATTGATCAATGCTAATATGATGGTCTTAGGACATGAACCAAGACAAACAACCTCGAATCTGGGTCACCT
AAACAAGCCATCTATCCAGGCATTAATTCATGGACTAAACAGACATTATTACTCCATTACTATTAACATATCGGAA
AAATGAACTGGAACAGAAGATGTTGCTAAATTTGCATAAGAAGAGTTGGATGGAAGGTTTGACACTTCAGGACTA
CAGTGAACATTGTAAACACAATGAATCAGTGGTAAAAGAGATGTTGGAATTAGCCAAGAATTACAATAAGGCTGT
AGAAGAAGAAGATAAGATGACACCTGAACAGCTGGCAATAAAGAAATGTTGGCAAGCAGGACCCCAAACGTCATTT
GGAGGAACATGTGGATGTACTTATGACCTCAAATATTGTCCAGTGTTTAGCAGCTATGTTGGATACTGTCGTATT
TAAATTAA

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FIGURE 800

MDRLLRLGGGMPGLGQGPPTDAPAVDTAEQVYISSLALLKMLKHGRAGVPMEVMGLMLGEFVDDYTVRVIDVFAM
PQSGTGVSVEAVDPVFQAKMLDMLKQTGRPEMVVGWYHSHPGFGCWLSGVDINTQQSFEALSERAVAVVVDPIQS
VKGKVVIDAFRLINANMMVLGHEPRQTTSNLGHLNKPSIQALIHGLNRHYYSITINYRKNELEQKMLNLHKKSW
MEGLTLQDYSECHKHNE SVVKEMLELAKNYNKAVEEEDKMTPEQLAIKNVGKQDPKRHLEEHVDVLMTSNIVQCL
AAMLDTVVFK

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FIGURE 801A

GGGGACATTTTGGATTAAACCTTATGTAGGTTGCCAGCTAATGAATTGTAATTGATTTCATCTTAGCTGATAAAT
CTAATTGGTAATTTATAGAACAAATATTTGATAAGCTCCTATTAAATTGTCACCCACCAAGCGGACAGCTAACAT
GAATTGCACTTCACTGCAGCTTTAGAGATCGGTTTAGGCTGAGACATTGCGCCTGCCTTAGGTTGCTGACTTCTT
TATTTGAGAGCTCTGGAGACACCTAGTTTGA AAAATGTTATTCTGTTTTTTTTGTGAGAACTTAGTAAACAAGAAA
ATACTCTTGAGTGAAATGCAATGTATTTCTTTTGTAATCAGTGCATTGAAAATTCAAGCCAGCATATTCCTAGT
AGATGGAAGCAAATTAAGTTGTCTTTGTAGAAAATGAAGAGCCTTTCTTCCAGCAAAAATCCCTGCTGTATGCA
ATAGCCCTGATTAAACCCTCTCCCTTCTGCATGTTTCCCATATTACAGACTTGAGACTGTCTCTATTCCCATATGT
AATAGACATCCAAAGAATTTCAATTGCTTTGTTGAACTTTTACTAATGATCTTGTTTTTATTTTCTCTCTTGT
TTGGTTTTTCACCATTGATATTGTATTTAGAAGGTTTCAGGTGGGTGAAACCTCCTATTCCATGCGTAAGGTGCC
TCGCTGAAGGGAGCTCGAGGCCTGGATCTAGGGCAGACACACAACCTCCTCCTCCTTCCAGCAAGGAACGCAC
CGAAAAGTCACATGATGAGAAATATGGTAACGGGTTTGTAACCTGCCACAGCAAAACAATTTGCCTCCATGCCTGA
ATCTTCTGTCTTGTGGCTTCAGAAACAGCTTAAAAATAATTTTATTTACAAGCAAGTTATGTAAGAGAATGTTTTA
TACTATAGCCACAATTTCTGTCAAAGATAAGTAAAGTTAATTGATATTAAAAATTATTAGAGATAATTTACTTAG
TAAAAGCTTCTAACTCTTCTTGTGTTCAATTTTTTCTTTTCTTTGTTTGGATTGCAGCATTCTGCTC
TTCTGATGATGCGCTGTGACCCTGCAGTAGCGCAAAGGCTGCGCAGCGTTAATGCGCATTGCGTGCGAATGAACC
CCTGTGAACGGTTGACTAGATGAGTAATCTGATTGACTGGCTCCCTCAGTCCTATTCTGTAGCCTTTTTGGATAA
AATTGGGTTTTAACATACCTCGAGTCCAATACTCATTAACAAATATTCTCCATGGGCCTGTCTAGTAGATT
AATGGATCTGGTTGGCCGTTTGTGCGTCTAGGGGTGTTCTATGTAGCGCAGCAGTTTCGAGCGATTGCGCAGTG
CGATGCTGTTAGGTTGCGCAAGCGATGTTTGCCTCGCATTACAGGGACCTCAACCTAGGTGCAATCCTGTCTATG
TGAGGTTTCAGCTTCAGTCTCTCTTGGGAGACGGGGCATTGTGAGAATGTAACCTAAAGCCTGGCTTTATGATAT
CCTACTTGGCAGAAAGACATTTTTCTCCTCAGTAGCATAGTTTTGATGTTAGTGAGGAACATTGTTGAAGAGCAG
CATTTCCCAAAATGTGTTTCATAGTATTCTAATAAAATGCCCAATGAAAGAAGAGTTCCATGGTCAACTAAGTTC
AGGGAACCTGTTACACTATTAAAGGCTTAGGGAAGTCCAGTAAAGAAACCTATTTTCCGAATTTATTTGATCAT
GAACTCCTTTTTTTTTCAGCCATACCTCTTAACACCTCATAGAACACACTTCCGGAACAGTGGGGGTAGGAAAAC
TCGGCCTCAAGTTGCGCCCTCTAGGTAGCACTTGAAAACATGACAAGGGCCCGTAGTTGTTTGGATAAGAGAACT
CCAGCATAGAGCCTTATAGCAACTGACTTCCAGTTAAGTCCAGTGTAAGGGTTGGTCTTTGGTTGGCAGAACT
GAACATGGTGGTTTGCACTTGGGTTCTGGTGGCGCAGGCGCAGGAGCAGCCAGCTGTGGCAGCGCATTAGTTTTG
GCGCAAGCGAGCCTATGCTGCAGGGTCACTTTTTGGCTGGTCAGAGAAGGAATAATGATATCACCTTCTTCCCCC
CTCCCCCAATCTTTTTTTTTTCCCTTTACAAATTTTCCCTTTCCCTTTACCTCCTTTCCCTCCCATCTTCTTT
CATTAACCCCTCCTAAGGCATGTTATTTGAAAGCAATTGAGACGCAACCGAATTTGCAGTAGCTTGGAGTAATC
TTGGCTGTGTTTTCAATGCACAAGGGGAAATTTGGCTTGCAATTCATCACTTTGAAAAGGCTGTACCCCTTGACC
CAAATTTCTGGATGCTTATATCAATTTAGGAAATGTCTTGAAAGAGGCACGCATTTTTGACAGAGCTGTGGCAG
CTTATCTTCGTGCCCTAAGTTTGAGTCCAAATCACGCAGTGGTGCACGGCAACCTGGCTTGTGTATACTATGAGC
AAGGCCTGATAGATCTGGCAATAGACACCTACAGGCGGGCTATCGAACTACAACCACATTTCCCTGATGCTTACT
GCAACCTAGCCAATGCTCTCAAAGAGAAGGGCAGTGTTGCTGAAGCAGAAGATTGTTATAATACAGCTCTCCGTC
TGTGTCCCACCCATGCAGACTCTCTGAATAACCTAGCCAATATCAAACGAGAACAGGGAAACATTGAAGAGGCAG
TTCGCTTGATCGTAAAGCATTAGAAGTCTTCCAGAGTTTGCTGCTGCCCATTCAAATTTAGCAAGTGACTGC
AGCAGCAGGGAAAACCTGCAGGAAGCTCTGATGCATTATAAGGAGGCTATTGCAATCAGTCCTACCTTTGCTGATG
CCTACTCTAATATGGGAAACACTCTAAAGGAGATGCAGGATGTTTCAGGGAGCCTTGCAAGTTATACGCGTGCCA
TCCAAATTAATCCTGCATTTGCAGATGCACATAGCAATCTGGCTTCCATTCTAAGGATTTCAGGGAATATTCCAG
AAGCCATAGCTTCTTACCGCACGGCTCTGAACTTAAGCCTGATTTTCTGATGCTTATTGTAACCTGGCTCATT
GCCTGCAGATTGCTGTGATTGGACAGACTATGATGAGCGAATGAAGAAGTTGGTCAGTATTGTGGCTGACCAGT
TAGAGAAGAATAGGTTGCCTTCTGTGCATCCTCATCATAGTATGCTATATCCTCTTTCTCATGGCTTCAGGAAGG
CTATTGCTGAGAGGCACGGCAACCTGTGCTTAGATAAGATTAAATGTTCTTCATAAACCACCATATGAACATCCAA
AAGACTTGAAGCTCAGTGATGGTTCGGCTGCGTGTAGGATATGTGAGTTCCGACTTTGGGAATCATCCTACTTCTC
ACCTTATGCAGTCTATTCCAGGCATGCACAATCCTGATAAATTTGAGGTGTTCTGTTATGCCCTGAGCCCAGACG
ATGGCACAACTTCCGAGTGAAGGTGATGGCAGAAGCCAATCATTTTCATTGATCTTTCTCAGATTCCATGCAATG
GAAAAGCAGCTGATCGCATCCATCAGGATGGAATTCATATCCTTGTAATATGAATGGCTATACTAAGGGCGCTC

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FIGURE 801B

GAAATGAGCTTTTTGCTCTCAGGCCAGCTCCTATTTCAGGCAATGTGGCTGGGATACCCTGGGACGAGTGGTGCGC
TTTTTCATGGATTATATTATCACTGATCAGGAACTTCGCCAGCTGAAGTTGCTGAGCAGTATTCCGAGAAATTGG
CTTATATGCCCCACACTTTTTTTATTGGTGATCATGCTAATATGTTCCCTCACCTGAAGAAAAAGCAGTCATCG
ATTTTAAGTCCAATGGGCACATTTATGACAATCGGATAGTTCTGAATGGCATCGACCTCAAAGCATTTCCTTGATA
GTCTACCAGATGTGAAAATTGTCAAGATGAAGTGTCTGATGGAGGAGACAATGCAGATAGCAGTAACACAGCTC
TTAATATGCCTGTTATTTCCTATGAATACTATTGCAGAAGCAGTTATTGAAATGATTAACCGAGGACAGATTCAAA
TAACAATTAATGGATTAGTATTAGCAATGGACTGGCAACTACTCAGATCAACAATAAGGCTGCAACTGGAGAGG
AGGTTCCCGTACCATTATTGTAACCAACCGTTCTCAGTACGGGTTACCAGAAGATGCCATCGTATACTGTAAC
TTAATCAGTTGTATAAAATTGACCCTTCTACTTTGCAGATGTGGGCAAACATTCTGAAGCGTGTTCCCAATAGTG
TACTCTGGCTGTTGCGTTTTCCAGCAGTAGGAGAACCTAATATTCAACAGTATGCACAAAACATGGGCCTGCCCC
AGAACCGTATCATTTTTTTCACCTGTTGCTCCTAAAGAGGAACACGTCAGGAGAGGCCAGCTGGCTGATGTCTGCT
TGGACACTCCACTCTGTAATGGGCACACCACAGGGATGGATGTCTCTGGGCAGGGACCCCCATGGTGACTATGC
CAGGAGAGACTCTTGCTTCTCGAGTTGCAGCATCCAGCTCACTTGCTTAGGTTGTCTTGAGCTTATTGCTAAAA
ACAGACAAGAATATGAAGACATAGCTGTGAAGCTGGGAACTGATCTAGAATACCTGAAGAAAGTTTCGTGGCAAAG
TCTGGAAGCAAAGAATATCTAGCCCTCTGTTCAACACCAAAACAATACACAATGGAAGTGAAGTCACTGAGTCAGCAT
AAATAAAGACTGCACAGGAGAATTACCCCTAAAAAAGGGCGGCCGAGGGAAGTGAAGTCACTGAGTCAGCAT
CTTCTTACTTGTCTGTACAGTACCTTGTTCAGATGGGTGATATATAATGGTAATAGAATAGCACAGCCAGACTT
GCTTCTGCATGGTAGGGAGAGACACAAAAGATGGGAACTGCTTTTCCACAAGGAATCTCCGTAGAATTTTGCG
GCGACCAGATGGTGCATAGGTCTGGAAGGTCTGATCTCCCTTGGTCTTCCATGGGATGGTTAGTGTGGAGGGGAG
ATATAGATTGTCCGGCCGCTTTGTGATTCCATGGATTGATTGAGTCTTCTGGATTTTTTTTTCTTTATATTTTG
GTACTGGAGCTTTTAAAAATGTTTGGTTTTAGGTATTTTATTTCATGTGAAGTGTATATGATTCTCTTGAGATAA
GGTTTTAAGCTAAAATGTTACTCCCTGTTTTAGTTTCTGAACTCTGACAGATTGACAGGGACTTTGCTGGTGTAG
TCTTTTTATAGTTTTTATAAACCACTTGAGCCTATATCAGTCGTTTTAGTGTCTGACCTAATATTTGGAGCTATC
AGTGCTTTGTGATTAGATGATGACTCAAGATTTTTTCTGGTCCATTTCCATTTCTTTTCTTCCCTGACCCC
CATACCTCACCTTAAATTTCTCTGTAACCTCAACTAACAAAATCAAGCCTGATTCAAAACATCCTAGGGTGT
TTAAACACACCATCTGGTGCCAAATGAAGATTTTTAGGAGTGATTACTAATTATCAAGGGCACAGTTGTGGTACT
GTCATTGATAATAATATAGTTTTTTTTTTTTTCTTAAAAAAGGGCGGCCGAGGGAAGTGAAGTCACTGAGTCAGCAT
AATAAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 802

MLQGHFWLVREGIMISPSSPPPNLFFFPLQIFPPFTSFPSHLLSLTPPKACYLKAIETQPNFAVAWSNLGCVF
 NAQGEIWLAIHHFEKAVTLDPNFLDAYINLGNVLKEARIFDRAVAAYLRALSLSPNHAVVHGNLACVYYEQGLID
 LAIDTYRRAIELQPHFPDAYCNLANALKEKGSVAEAEDCYNTALRLCPTHADSLNNLANIKREQGNIIEAVRLYR
 KALEVFPEFAAAHSNLA SVLQQQGLQEALMHYKEAIRISPTFADAYSNMGNTLKEMQDVQALQCYTRAIQINP
 AFADAHSNLA SIHKDSGNIPEAIASYRTALKLKPDFFDAYCNLAHCLQIVCDWTDYDERMKKLVSIVADQLEKNR
 LPSVHPHHSMLYPLSHGFRKAIAERHGNLCCLKINVLHKPPYEHPKDLKLSDGRLRVGYVSSDFGNHPTSHLMQS
 IPGMHNPDKFEVFCYALSPDDGTNFRVKVMAEANHFI DLSQIPCNGKAADRIHQDGIHILVNMNGYTKGARNELF
 ALRPAPIQAMWLGYPGTSGALFMDYIITDQETSPA EVAEQYSEKLAYMPHTFFIGDHANMFPHLKKKAVIDFKSN
 GHIYDNRIVLNGIDLKAFLD SLPDVKIVKMKCPDGGDNADSSNTALNMPVIPMNTIAEAVIEMINRGQIQITING
 FSISNGLATTQINNKAATGEEVPTIIVTTTSQYGLPEDAIVYCNFNQLYKIDPSTLQMWANILKRVPN SVLWLL
 RFPVAGEPNIQQYAQNMGLPQNRIIFSPVAPKEEHVRRGQLADVCLDTPLCNGHTTGMDVLWAGTPMVTMPGETL
 ASRVAASQLTCLGCELELIAKNRQEYEDIAVKLGTDLEYLKKVRGKVWKQRISSPLFNTKQYTMELERLYLQWWEH
 YAAGNKPDHMIKPVEVTESA

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FIGURE 803

GGAGGAGGAAGCAAGCGAGGGGGCTGGTTCCTGAGCTTCGCAATTCCTGTGTCGCCTTCTGGGCTCCCAGCCTGC
CGGGTCGCATGATCCCTCCGGCCGAGCTGGTTTTTTTGGCAGCCACCGCGAGGCCGGCTGAGTTACCGGCATCC
CCGCAGCCACCTCCTCTCCCGACCTGTGATACAAAAGATCTTCCGGGGGCTGCACCTGCCTGCCTTTGCCTAAGG
CGGATTTGAATCTCTTCTCTCCCTTCAGAATCTTATCTTGGCTTTGGATCTTAGAAGAGAATCACTAACCAGAG
ACGAGACTCAGTGAGTGAGCAGGTGTTTTGGACAATGGACTGGTTGAGCCCATCCCTATTATAAAAAATGCTCAG
AGCAACCGGGAGCTGGTGGTTGACTTTCTCTCTACAAGCTTTCCAGAAAGGATACAGCTGGAGTCAGTTTAGT
GATGTGGAAGAGAACAGGACTGAGGCCCCAGAAGGGACTGAATCGGAGATGGAGACCCCCAGTGCCATCAATGGC
AACCCATCCTGGCACCTGGCAGACAGCCCCGCGGTGAATGGAGCCACTGGCCACAGCAGCAGTTTGGATGCCCGG
GAGGTGATCCCCATGGCAGCAGTAAAGCAAGCGCTGAGGGAGGCAGGCGACGAGTTTGAACGCGGTACCGGCGG
GCATTCACTGACCTGACATCCAGCTCCACATACCCCCAGGGACAGCATATCAGAGCTTTGAACAGGTAGTGAAT
GAACTCTTCCGGGATGGGGTAAACTGGGGTTCGATTGTGGCCTTTTTCTCTTCGGCGGGGCACTGTGCGTGGAA
AGCGTAGACAAGGAGATGCAGGTATTGGTGAGTCGGATCGCAGCTTGGATGGCCACTTACCTGAATGACCACCTA
GAGCCTTGGATCCAGGAGAACGGCGGCTGGGATACTTTTGTGGAACCTCTATGGGAACAATGCAGCAGCCGAGAGC
CGAAAGGGCCAGGAACGCTTCAACCGCTGGTTTCTGACGGGCATGACTGTGGCCGGCGTGGTTCTGCTGGGCTCA
CTCTTCAGTCGAAAATGACAGACACTGACCATCCACTCTACCTCCACCCCCCTTCTCTGCTCCACCACATCCT
CCGTCCAGCCGCCATTGCCACCAGGAGAACCCTACATGCAGCCCATGCCACCTGCCATCACAGGGTTGGGCC
CAGATCTGGTCCCTTGCAGCTAGTTTTCTAGAATTTATCACACTTCTGTGAGACCCCCACACCTCAGTTCCCTTG
GCCTCAGAATTCACAAAATTTCCACAAAATCTGTCCAAAGGAGGCTGGCAGGTATGGAAGGGTTTGTGGCTGGGG
GCAGGAGGGCCCTACCTGATTGGTGCAACCCTTACCCCTTAGCCTCCCTGAAAATGTTTTTCTGCCAGGGAGCTT
GAAAGTTTTCAGAACCTCTTCCCCAGAAAGGAGACTAGATTGCCTTTGTTTTGATGTTTGTGGCCTCAGAATTGA
TCATTTTCCCCCACTCTCCCCACACTAACCTGGGTTCCTTTCTTCCATCCCTACCCCTAAGAGCCATTTAG
GGGCCACTTTTGACTAGGGATTAGGCTGCTTGGGATAAAGATGCAAGGACCAGGACTCCCTCCTCACCTCTGGA
CTGGCTAGAGTCCTCACTCCAGTCCAAATGTCTTCCAGAAGCCTCTGGCTAGAGGCCAGCCCCACCCAGGAGGG
AGGGGGCTATAGCTACAGGAAGCACCCCATGCCAAAGCTAGGGTGGCCCTTGCAAGTTCAGCACCACCTAGTCCC
TTCCCTCCCTGGCTCCCATGACCATACTGAGGGACCAACTGGGCCCCAAGACAGATGCCCCAGAGCTGTTTATGG
CCTCAGCTGCCTCACTTCCTACAAGAGCAGCCTGTGGCATCTTTGCCTTGGGCTGCTCCTCATGGTGGGTTTCAAG
GGACTCAGCCCTGAGGTGAAAGGGAGCTATCAGGAACAGCTATGGGAGCCCCAGGGTCTTCCCTACCTCAGGCAG
GAAGGGCAGGAAGGAGAGCCTGCTGCATGGGGTGGGGTAGGGCTGACTAGAAGGGCCAGTCTGCTGGCCAGGC
AGATCTGTGCCCCATGCCTGTCCAGCCTGGGCAGCCAGGCTGCCAAGGCCAGAGTGGCCTGGCCAGGAGCTCTTC
AGGCCTCCCTCTCTCTTCTGCTCCACCCTTGGCCTGTCTCATCCCCAGGGTCCCAGCCACCCCGGGCTCTCTGC
TGTACATATTTGAGACTAGTTTTTATTCCTTGTGAAGATGATATACTATTTTTGTTAAGCGTGTCTGTATTTATG
TGTGAGGAGCTGCTGGCTTGCAGTGCGCGTGCACGTGGAGAGCTGGTGGCCGAGATTGGACGGCCTGATGCTCC
CTCCCTGCCCCTGGTCCAGGAAGCTGGCCGAGGGTCTGGCTCCTGAGGGGCATCTGCCCTCCCCAACCCCC
ACCCACACTTGTTCAGCTCTTTGAAATAGTCTGTGTGAAGGTGAAAGTGCAGTTCAGTAATAAACTGTGTTTA
CTCAGTGAAAAAAAAAAAAAAAAAAAA

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FIGURE 804

MSQSNRELVVDFLSYKLSQKGYSWSQFSDVEENRTEAPEGTESEMETPSAINGNPSWHLADSPAVNGATGHSSSL
DAREVIPMAAVKQALREAGDEFELRYRRAFSDLTSQLHITPGTAYQSFEQVVNELFRDGVNWGRIVAFFSFGGAL
CVESVDKEMQVLVSRIAAMATYLNHLEPWIQENGGWDTFVELYGNNAAAESRKGQERFNRWFLTGMTVAGVVL
LGSLSRK

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FIGURE 805

GGCACGAGGCGTCCCGGCGCCACTCGGCCAGGGCAGGGACCCCGCCACGGCCGGGACCGCCCGGCCCGGCCCA
GCCCCGCGCTCTCCGCGCCGCCCCGCGCTCCGCACCGCGCCCTCTCCGCGTCCCCGCCCCGCGCGGCCGGACCGGG
CAGCCAGAAAAATCATTCTTTCTTCTCTGGGAAGGTGAACATTTGTAGCATTGATTTCCCGGATCTGGTAAC**ATGG**
CAAAAGATGCCGGTCTAATTGAAGCCAACGGAGAACTCAAGGTCTTCATAGACCAGAACCTTAGTCCCCGGGAAAG
GCGTGGTGTCCCTCGTGGCCGTTACCCCTCCACCGTCAACCCGCTCGGGAAGCAGCTCTTGCCAAAAACCTTTG
GACAGTCCAATGTCAACATTGCCCAGCAAGTGGTAATTGGTACGCCTCAGAGACCGGCAGCGTCAAACACCCCTGG
TGGTAGGAAGCCACACACCCCCAGCACTCACTTGCCTCTCAGAACCAGCCTTCCGACTCCTCACCTTGGTCTG
CCGGAAGCGCAACAGGAAAGGAGAGAAGAATGGCAAGGGCCACGGCATTCTCCATGAAGGTCTGCGAGAAGG
TGCAGAGGAAAGGGACCACTTCTACAACGAAGTGGCAGACGAGCTGGTTGCGGAGTTCAGTGCTGCCGACAACC
ACATCTTACCAAACGAGTCAGCTTATGACCAGAAAAACATAAGACGGCGCGTCTACGATGCCTTAAACGTGCTAA
TGGCCATGAACATCATCTCCAAGGAGAAGAAGGAGATCAAGTGGATTGGTCTGCCACCAACTCGGCTCAGGAAT
GTCAGAACTTAGAGGTGGAAAGACAGAGGAGACTTGAAAGAATAAAACAGAAACAGTCTCAACTTCAAGAACTTA
TTCTACAGCAAATTTGCTTCAAGAACCTGGTGCAGAGAAACCGGCATGCGGAGCAGCAGGCCAGCCGGCCACCGC
CACCAACTCAGTCATCCACCTGCCCTTCATCATCGTCAACACCAGCAAGAAGACGGTCATCGACTGCAGCATCT
CCAATGACAAATTTGAGTATCTGTTAATTTTGACAAACACATTTGAAATCCACGATGACATAGAAGTGCTGAAGC
GGATGGGCATGGCTTGGCGGCTGGAGTCGGGGAGCTGCTCTGCCGAAGACCTTAAATGGCCAGAAGTCTGGTCC
CCAAGGCTCTGGAGCCATACGTGACAGAAATGGCTCAGGGAAGTGTGGAGGCGTGTTTCATCACGACGGCAGGTT
CCACGTCTAACGGCACAAGGTTCTCTGCCAGTGACCTGACCAACGGTGCAGATGGGATGCTGGCCACAAGCTCCA
ATGGGTCTCAGTACAGCGGCTCCAGGGTGGAGACTCCGGTGTCTACGTGCGGGAGGACGACGAGGAGGACGATG
ACTTCAACGAGAATGACGAGGACGACT**TGAC**CGTCTCCCCACTTCAGATTGGGCTTCAGGAAAACGTTTAGCGAAA
AGAAACTTTTTTTTTAATGTGGGTTTTCTGTTTCCTTTTGGCCTACTCCCAAGAAGATATTGGTAAGCTATTGAA
TTTAGATATGCACCTCTGATAAGCAAGGATTGTTTCCCGTAGGATTAGGACGTGCTGTGGATGTGTGTTTTGATA
CCAGTGCTGATGCAGAGCGTTTATTTAGTTGTTAGGATTTTGTGTTTTTCATTTGCTATTTTTCTTTAAGTGCA
GAGTTCATTTTTGCCCCTGAAAAGTTTTTGCTGAGTTTGCTGAAGAAATTGTATTTCAACCACATCCATGAAAAT
AAAACACCTCCTGTTGTGGATGGTGAGCCCCGTATGCCGCTTATTTGCCGTGAGTTTGGACGGCACCCCTGCTGG
CGGATAGCAAGACTCTGTGGAGTTTGTTCAGTGGTACGGTGTCCAAGCAAACAGCAGAATGCAACTTTCTAAACA
GCCCCAAGCAAACAGCAGAAATCAACTTTTTAAACAATAAACACCATCAACCTTATTGACTTTATTGTCCCTTAA
ATTATATTGACTGTTGTGATTCCATCAAGTTTGTACACTCTTTTCTCTCCCTGTTTTGCAGCAACAAATTGCGAA
GTGCTTTTGTGTTTGTGTTTTCGTTTGGTTAAAGCTTATTGCCATGCTGGTGGGCTATGGAGACTGTCTGGAAG
GCTTGGAATGGTTTATTGCTTATGGTAAAATTTGCCGTATTTCTTACAGGCAGCGTTTGGAAACCTTTTATTATA
TAGTTGTTTACATACTTATAAGTCTATCATTTAAAGACATGTACTGAAACAAATGTATTTGTTTCATAAGCATCT
TCCTGTAATCTATTATAAAATTGAAATTAAATATAGAGAATGTTTTAACAAAAAAAAAAAAAAAAAAAAA

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FIGURE 806

MAKDAGLIEANGELKVFIDQNLSPGKGVVSLVAVHPSTVNPLGKQLLPKTFGQSNVNIAQQVVIGTPQORPAASNT
LVVGSPTHPTSTHFASQNQPSDSSPWSAGKRNRKGEKNGKGLRHFSMKVCEKVQRKGTTSYNEVADELVAEFSAAD
NHILPNESAYDQKNIRRRVYDALNVLMAMNIISKEKKEIKWIGLPTNSAQECQNLEVERQRRLERIKQKQSQLQE
LILQQIAFKNLVQRNRHAEQQASRPPPPNSVIHLPFIIVNTSKKTVIDCSISNDKFEYLFNFDNTFEIHDDIEVL
KRMGMACGLESGSCSAEDLKMARSLVPKALEPYVTEMAQGTVGGVFITTAGSTSNGTRFSASDLTNGADGMLATS
SNGSQYSGSRVETFPVSYVGEDDEEDDDFNENEDDD

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FIGURE 807

ACTTATACATCTGTAAAGGTGGTTTCAGGGACCTTTCTGAACTTAGCCCGTATCTCACTGGTGATCCCACTTCTG
GGTATTTGCAAATCAGTTTATTAGGTTTTTAAAAGTATTGTTGCAGGCATGCGAAGGGGCCGATATACTTTTGCC
ATGTCCAGAGTGTATTCAGGTCTTGTAATGATCATATGGGTGTAATATTGAGTAACAGGCAAATGTGGGCAGAAA
ATATCAAATGTGGTTTTTCAGCTAAGAAGTCTGGTTGCTCTTAATTTTCAGTTACTCTCCATTGCATAGAATAAAG
CCCCGAAGAAACGAAGAATAAGATCATGGGGAACTTGGCTTCCATGTTAAACCGTGTAAACCAGGTGTTAGAA
TAGTAGTAAAGGACTTGTTTCTTTCACATCTATATACACTCAAAGACCTCATCGATCTTGGA AAAACATTGTTT
CGAAGACAATGTGTATGACTGATTTGGTTATATGAAGAAATTATTTCTAGGATTTCTGTAATTCTGTGATAAA
CAGTAATACAACTGGAATTTTACAGGTCACTATAGTAGAGGTTTTAGTTTGATTTTGGCTTTGCCTGTCATGC
TCTCTCTGCCTTATAATTCTTTGTGGTGTAATTA AAAACGAACACTNNNNNNNNNNNNNNNNNNNNNNNNNNNN
NNNNNNNNNTGCAAACACATTTTAATTGACAACACTAGGGCTGTTGTACAAAATAGTAATGATAGCCATGGAAG
TTTTACCTTATTCTGTGAGAAGTGTTCTTAAACTTATTAAGTGCTAAACTAAGGTTTAGTGCTTTTTTAAAGGA
AAGTTGTCCCAGGATTCATCCTAAAGAAAGCAAAAGTTAATTCAACTGATCCACCAATGGAATTAGATGGGTAGA
GTTGGGTTCTTGAGTTTTACCACCACTTAGTTCCCACTGAATTTTGTAACCTCCTGTGTTTGCATCCTCTGTTCC
TATTCTGCCCTTGCTCTGTGTCATCTCAGTCATTTGACTTAGAAAAGTGCCCTTCAAAGGACCCTGTTCACTGCT
GCACTTTTCAATGAATTAAATTTATTTCTGTTCTAGTGGGAATGTGTCCTTTGTTTTAGTTTACAAGTAGTAAT
TTTGACAAGATGCTTTCTTCTGATGCAGTTTGTTTTAATCACTCACCTAGTACTAGAAATGGCTTTCTAGTCAGA
TCCTATAGTCTCTACCTGTATAGCTCTTACATACA

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FIGURE 808

MLSSDAVCFNHSPSTRNGFLVRSYSLYLYSSY

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FIGURE 809A

CCGTCCCGGGGCGGACGGGCGCGGGCGGGAGGATGGAGCTGAACTCCCTGCTGATCCTGCTGGAGGCGGCCGAGT
ACCTGGAGCGCAGGGATCGAGAGGCCGAGCACGGCTACGCCTCGGTGCTGCCCTTCGACGGCGACTTCGCCAGGG
AGAAAACAAAGGCGGCCGGCCTGGTGCGAAGGCCCGAACAACAGGTCTTCACACAACGAGCTAGAAAAGCACA
GACGAGCCAACTCAGGCTGTACCTTGAGCAGCTCAAGCAACTGGTGCCCTGGGCCCCGACAGCACCCGCCACA
CCACGCTGAGCCTCCTGAAGCGGGCCAAGGTGCACATCAAGAACTGGAGGAGCAGGACCGCCGGGCACTGAGCA
TCAAGGAGCAGCTGCAGCAGGAGCATCGTTTCTGAAGCGGCGCCTGGAGCAGCTGTGGTGCAGAGCGTGGAGC
GCGTGCACACAGATAGCACGGGCTCTGCTGTCTCCACGGACGACTCAGAGCAAGAAGTGGACATAGAGGGCATGG
AGTTTGGCCCTGGTGGAGCTGGACAGTGTGGCAGCAGCAGTGACGCGGACGACCACTACAGCCTGCAGAGTGGCA
CCGGCGGCGACAGTGGCTTCGGGCCCCACTGCCGGCGGCTGGGCGCCCCGCCCTCTCGTAGGCCGTGCCCTCT
GCTCCTTGGCCTGCCTGCCCCGACCCACGCGTGTGAGCCCTCCAGTTCTCCTTCAGTTGACGCCAGCCTCTCCA
CAGGCCCCACTGCTGTGCCATTCTGGAAGCTCCAGCTGCTGCTGGGCTGCCTGGCACTGCCCCGCTTGCCGGTCAAG
GCCTGCGGAGCTGCCTGCCCCCTTCAGCTGGGCAGAGTCCCCTGCAAGGAGGCAGGGCCCAGCTTCCACATCCGG
AGCCCTGGTCAGCATAGCCGCCACGGTCTGTTCTCAGATTCTAATCATTCCAGAAGTATTAAACGTCATTGCT
GCAAACCTCGGCAGGTGCCGTGTGAGGGGCTTAATGACCACCACAGGGAGCTCAGACCCCAACCCTGGATCCAG
GAGAAAGGAGTGGACCGAGGAAGGAAGGAAGGAAGGCTGTCTGTCCATCCGTCCGTCTGTCCACCTACCTGTCA
GTCCACATAGGCTCCTGGCGTGGACAAGGGGTCTGTGAAGGGCGGGAAGTGGGTGAGCACCTGGGGCAGGTGGGT
GGTTAAGGTCCTTCCCACTTCGCAGGTGTGAGAACCTAGGGCTGGGCTCTCGGGGCCAGGCAGGCCAGCCAGCC
CACGCCGAGCTGGGCAGCGTCTGCTCTGGTAGGACTGTGAGACGCACACGCGCACGCACCTAGACACACCCACTC
ATGTACATGCTCACACATGCAGACACACCTGGGCGTCCCGAGGTCACATGTTCTGGGGATGATGGCCTTCAGGGG
TCATCTGGCAAACAGCCCCCTGGGCTGTGCCTGGATCCCCCTCTAGCTCCTGCTCACCACGCCACCCAGTAGTC
CTGCCTGTCTGCACAGGAGAGGGGCTTCTCTTCTGGCTGGGGCTGGGGTGAAGTGGAGGCTGGTTAAGTTGCAG
CCGCTGGGTCTCGGGGGCTTACTCATCTCCCTTTTTTAAACAAAAAGCAAAAAAGTAAAATGCTGCACTGCCCA
GCAGCCCCGTTAGGGCTCCTGGAGCCACCTTAGGAAAGGGCTTCTCATGAGCTCTGCTGCGGCAGCTTCAGCTGG
CAGAGAGGCTTTCCAGAAAAAAGGCTTCTCATGAGCTCTGCTGCGGCAGCTTCAGCTGG
CGTCCGTGTGTGCCGCTCTGTTTCTGTACCAGATTTTTGTATTCTATTTTCTAGCTGTTGTTGCGTCTTGT
TTGTGAGGGGTGGGAGCCACCCAGCGTCTCAGGGACCTGTCCCTCCGTACGTCGTCAAAGTGTGCCTTGTGTC
TTGTGTCAGGCCCTTGCCCTTCCCACAGCATGTCCCTCGTGGCTCAGGGTGCCCCAGGCCTGCCAGCTAGTGCT
GTCCTCCCATCTCCTGTGGGACGCCCTCCCGGCAGCCAGGGCTTCTGGAGGCGATGCAGCCAGGCCCCCTGTGG
GTGGCAGGAGGGGCTGTGACCTGGTCCCCAGTGTGCCCCCCCCAGTGGCTGGCAGGGGCTGCTTGTCTACTA
GAGAGATGGATTCTACCTGTACCTGACTCGAGCCCCCTGCTTCTGGCCTAGGCGAGGGTTCCAGGTTTTCAGA
CACTGGCAGCCAATGAAGACTGTGCTCGCTGGGTGGTGCAGGCCTGGCACCAGGAGGCTTGACCCGCTTTCTCT
TCCTGACGTCTCTGTCTTGGGGCTGGCCCATAGCAGTGCCTGCCGTGCCTCTGGTACATCTGTAGCCAATTCC
CATATCATGGGGAATTCGTGTCTATTTTTCAGTCGTACGCATAGACGCCCCAGGATGGGGGGCCCACTGTGGCG
GAAGGGGGTCCCTGGAACAACCTTGGCACAGAACCTGCCCTGCAGGCTGTAGGGGGCATGGTGCCTGGAGCTGA
GGGGCATCCGAACGCGTTGCGGGTGGTTGTGAGGAGGCTGTCTGCATCTCCTTCCGGCCCCACTGGGGTCCAGG
GGTGGCCAGAAAGGAGCTTCCCTGCCTGCCTGAGTCTGTCCCCCAGGCTTCATTTCAAACACCGTGGCACCTC
CGAGCAAGGCGGGCCGTGTGTAAAGCTTGCTTCCCCAGCCAGCACTGCAGGGCCCTGAGGTGGTGTGTCTCCCTG
CCCTCAATTCTTGAAGCACCAGCTCCCTGCCCCACCCTCCAGTGCCTGAGGCAGCTAGGGGCTTCTGCTCTCATC
TCTGACCAGCAGAAATCCACCCGTGACCAGTGGTGGCCCCCTCAGCCCCACCCTCCCGGCAGCTCAGCCTGTGGCTC
TTGAGGCCGTGGTTCCACGTGGACTGGGAGGCACTCAGCCACCCGGGTGCTGTTTCACTGCCCCCTCCCTGC
CATCAGCAGGTGGGTGAGGGGTGCCCCACTGGGTGGGGGCCCCGTGCTAGGAGTCACCACATGCTCCAACCTCCCA
CTGCTCCCTGTGAGGGGGCCAGGCTGCCATCACTGGAGGCTGCAGGGACCAAGAGGCCATCACCCTGTCTATAGA
GAGCAGACAGAAGCAGAACAGAGCCCGGGGCTCCTGAGCCTCTGCGTGTGCCCTCCAGCCACACCAGTGCTCT
CGGCCACTGAGCACCCAGACTCAGGCTTGGGTTCGCCAGCCTTATTGGAAGGCAGCTCCCGCATACCAGGATAAC
CCCCGCAAACCACATAGCAGACCCCCGCCATCCTCGCAGAGTGGGAGAGGCTGCAGCAAGGCTTTGCTCTGCAG
ACCCCATCTTAGTGGCACGGTGTGTTGGGCTGTGTCCCCGGGTGGTGAACCCTGTACCGGTCTGTGGCCCTAGG
GTCCCTGCTCTGTCTGCCCCGGCCCGTGTGTCCGCTGGGTGAGGCAGGCTCCCCCGTGCCTGCCTCCCTCTGT
CAGGGAACCTGGGACCCCTCCCCACTGCCTGCACAGAGGACCCCTGACCCTCGGCCAGCAGGGTGGCCCCAGGTC

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FIGURE 809B

CATGTTGGGCACTAGGGCAGGTTCCGTGCCAGAGTCGGGGGCCACACGAGGGCCTGGTGCCGGTGAGGGGGGCGT
GCGCTAGAGGGGAAAGGGCCCCCGGCCACCTGTCCACCGTGTGGGCCGTGCTGTGTCCTTATGTCATTGTAAT
ATAAATACAGATTTTTATATCTC

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FIGURE 810

MELNSLLILLEAAEYLERRDREAHEGYASVLPFDGDFAREKTKAAGLVRKAPNNRSSHNELEKHRRAKLRLYLEQ
LKQLVPLGPDSTRHTTLLKRAKVHIKKLEEQDRRALSIKEQLQQEHRFLKRRLEQLSVQSVRVRTDSTGSAV
STDDSEQEVDIEGMEFGPGELDSVGSSDADDHYSLSQSGTGGDSGFGPHCRRLGRPALS

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FIGURE 811

CGCGGGCGGGAGGATGGAGCTGAACTCCCTGCTGATCCTGCTGGAGGCGGCCGAGTACCTGGAGCGCAGGGATCG
AGAGGCCGAGCACGGCTACGCCTCGGTGCTGCCCTTCGACGGCGACTTCGCCAGGGAGAAAACAAAGGCGGCCGG
CCTGGTGCACAAGGCCCCGAACAACAGGTCTTCACACAACGAGCTAGAAAAGCACAGACGAGCCAAACTCAGGCT
GTACCTTGAGCAGCTCAAGCAACTGGTGCCCTGGGCCCGACAGCACCCGCCACACCACGCTGAGCCTCCTGAA
GCGGGCCAAGGTGCACATCAAGAACTGGAGGAGCAGGACCGCCGGGCACTGAGCATCAAGGAGCAGCTGCAGCA
GGAGCATCGTTTCCTGAAGCGGCGCCTGGAGCAGCTGTCGGTGCAGAGCGTGGAGCGCGTGCACAGATAGCAC
GGGCTCTGCTGTCTCCACGGACGACTCAGAGCAAGAAGTGGACATAGAGGGCATGGAGTTTGGCCCTGGTGAGCT
GGACAGTGTTGGCAGCAGCAGTGACGCGGACGACCACTACAGCCTGCAGAGTGGCACCGGCGGCGACAGTGGCTT
CGGGCCCCACTGCCGGCGGCTGGGCCGCCCCGCCCTCTCGTAGCCCCGTGCCCTCTGCTCCTTGGCCTGCCTGCC
CGCCAGCCACGCGTGTCAGCCCTCCAGTTCTCCTTCAGTTGACGCCAGCCTCTCCACAGGCCCCACTGCTGTGCCA
TTCTGGAAGCTCCAGCTGCTGCTGGGCTGCCTGGCACTGCCCCGCTTGCCGGTCAGGGCCTGCCGAGCTGCCTGCC
CCTTCCAGCTGGGCAGAGTCCCCTGCAAGGAGGCAGGGCCCAGCTTCCACATCC

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FIGURE 812

MEINSLILLILLEAAEYLERRDREAHEGYASVLPFDGDFAREKTKAAGLVRKAPNNRSSHNELEKHRRAKLRRLYLEQ
LKQLVPLGPDSTRHTTLLKRAKVHIKKLEEQDRRALSIKEQLQQEHRFLKRRLEQLSVQSVERVRTDSTGSAV
STDDSEQEVDIEGMEFGPGELDSVGSSDADDHYSLSQSGTGGDSGFGPHCRRLGRPALS

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FIGURE 813A

GTTGGAGCGGCGCTGCTCGGCCGCGGACACACGAGGGACGCGCCCCGAGGAGCTGCAGGTGGCAGCCCAGGCGGTC
CGAACCCGTCGGCCGGCCGAGCCTGGAGTATTGCCTAAGTGTAATCTTGAACATGGGCGGTGCTGTGAGTGCTGG
TGAAGACAATGAAGAGCTGATAGATAATTTGAAAGAAGCACAGTATATCCGGACTGAGCTGGTAGAGCAGGCTTT
CAGAGCTATCGATCGTGACACTATTATCTTGAAGAATTTAAAGAAAATGCTTATAAAGACTTGGCATGGAAGCA
TGGAAACATTACCTCTCAGCCCCGTGCATCTACTCGGAGGTGATGGAAGCCCTAGATCTGCAGCCTGGACTCTC
GTTTCTGAACCTGGGCAGTGGCACTGGGTATCTCAGCTCCATGGTGGGCCTCATTCTAGGTCCTTTTGGTGTGAA
CCATGGGGTGGAACTTCACTCAGATGTGATAGAGTATGCAAAGCAGAACTGGACTTCTTCATCAGAACAAGTGA
TAGTTTTGACAAGTTTGACTTCTGTGAACCTTCCTTTGTTACTGGGAATTGCCTGGAGATTTCTCCGGATTGTTT
TCAGTATGATCGTGATACTGTGGGGCTGGCGTGCAGAAAGAGCATGAAGAGTACATGAAGAATCTTCTCAAAGT
GGGAGGGATCCTTGTGATGCCACTGGAAGAGAAGTTGACTAAGATAACACGCACAGGTCCTTCAGCTTGGGAAAC
CAAAAAGATTCTTGCTGTTTCTTTTGCTCCTCTGATCCAGCCCTGCCATTCAAGAGTCAGGAAAATCAAGACTTGT
CCAGTTACCACCAGTGGCAGTTCGCAGCCTCCAGGACTTGGCTCGCATCGCCATCCGGGGCACCATTAAAAAGAT
TATTCATCAGGAACTGTGAGCAAAACGGAACGGAATAAGAACACCCCCAGGTTTAAACGAAGGAGAGTTTCG
CCGCCGTCGAATGGAACGATTGTCTTTTTGGACAAAGAAGTCTTTGCCAGTCGGATTTCCAACCCCTCAGATGA
CAACAGCTGTGAAGACTTGAAGAGGAACGGAGGGAAGAAGAAGAGAAGACCCCGCCGGAACAAAGCCAGACCC
CCCAGTGAACCTCTACGCCAGAAGTCTCTGAGCCTCCCTCTGCCAGATCCCTGAAATACTACTTGCTTTATTA
CAGAGAAAATTAAGTCTCCTGTTTGAAGGGGGAATAGGAAGAGCAGATTGCTGAGTGTGAAGTTCGTGCTGCC
TGTGTGCTGTTGAAGGGTCACCTGGAGGCAGACGTTGTGGGGAAGGGAAGTGTGGGCTCATCCACACCATGGTT
TTCTTCTAGTTCTGATTGACCTCTAAAATTCTATTAGTTGTATGATTGTTTACATAGTTCCACAAGACCTTC
ATTGCATAGAAGATTGTTTTCCCAAAGTGGAGAGAATCTTCATAGAGAAAAAGAGAAGGCTGTTTCTTTTCGGC
TCTGACGAAACACTGAAGTCTGCGTAAGAGAGACTGTTTGATGACCGTCCCTCATGCAACATGCACGGTACTCAC
TAAAAATGAAAACACTGAAGTGGAACTAACCTGTGTTGCTTATAAAGTGTGAAAGCACAAGCTTATAAATGTATAA
AATCTTTTCTGGGTGTGACGCACCTGCGTCCAAGTTTGAATTTTTATGATATGTACCACTTAATTACTGGCACTG
AGTATCACTGAATTTCTTAGTTTTCTAGTGGGGAACATTATTGAGAAGCCCTCCCTTATTTTAAGTAAGTTGAT
TAAATCTTATGTGAGTTGCCAGTTGTAATTTTTCAAAGGAAAAATTTTGATGGGGTGGAGGAATGAATTGCCAGA
TAATCTTTCTGGAATTCGAGAGAATTCCAAAGAGGGTTTTTTTTTTTTTTTTTTTAGGACATCTTTTGATACCT
TTAAAGAACCCTGTCAAGTAATCCTTAAAAAATATCTTGGAAAAGGAAACAGATTTTTCTGTGTGTAAGC
AATAAGTGAAGTTACATTTGCCCTAACCTAGGGATGATTCTTTACCCAGTTTTAAAGCCCATCATGGTATTCTA
AGGTGTTGACACCCTCCATCCTCAGAGCAGGTGCAAAATATTAAATAGACTGGGGACTCTATGATGGGCAGCCTG
TGCTTTTGACTTCAGTTTGCTATTTTTCTGTGATCATTAGTACTGATTCAATAGATTCTATCTTTTATAATTC
TGGAGAAAAAGATTTGTTAGTTTTGTAATTTTTTGTAAAGACCAAATGTATGTATTTTAGTAGCTCCATTGCATG
AGAAGAGTGTAACCTCACACTGACTTGTGATATCAGCCTTCTCTGGGCCTTGTGTGGAGAGCTTTCTATCTTAC
CAAGTGGTAGGGCTAAAAGAACACAGCCTTTTTGGTAGTCACATAGCAGAATGATCAGAGTTACATTGCTTATT
CCAAAACATTGGTCTTTTTTAAACATTTTTTTTTTACCCAAAGAAAAGAATAATAGAAATTACTAACAATAAATA
TAAATTCAGAGTGTTGATATAGGATTAGTATCCAGAGTTTATTTTTAATCTTAATCCTCAGCTTCTTGGGAGTT
GCTGGGCTTCAGTGTCTCTGTGGTTTACCAGCTTAGCTTGAGCTCTGGTTATTTTGGATCTTTCTGCTTTTTT
TAAGTAACTGAGTCATTTTTACCACACAGTCCAGTTTGCATGTATAGCTAGGAAACATGTATTGCTCTAGATTGG
GCAGTTTAAAGTCATTTTAAAGAAAGTTAGTTTCATAGTTGTTGCCTTTTAACTCATAGTCAAGCTTCAGTCTTTCA
AAGAGAAATGTGTGATTTTCATTTACTTGCTGATATTTTGTAGTTTGGAGATCCTTGTGGGCATTATTCTAACTG
ATACGTAGACACTTACTTGGAAATTTTTGGACATTATATTAAATGAGTGCTATCTGTGAAATTGGTTATATTAGG
TGGCTTGACTAATGTTTTTCTATAATTGTATATGGACTGCATTTTTAAAAAAACCGCATTGCTTTTATGCTAG
ATTGTAAAAAATTATATTAGAATGCATAAGACATGTTTTTCTTCATATGCTAGACTTTTCTAGCATTTCGTAT
TTCTGTGTTGTCAGTGTGTGATTTTTAAACCGGAATTTGGTTTTAAAAAAATCTGGTGGTAATATATGTGAGAAA
TACTTTGGTGTTTACCTTATGAAAATAAAGGATTGTAAGTAAAGTTTCTGCGCACCTTATACCAGAATTCAGTA
TAATACACTACTTTCTGTTTTCAACAGATAAATCATAATATAGTCTGTATTATCTGTAAGATCTGTCTTGTA
CCACATTCTTGACAACATTTTGTCTTTGAGTAGTTGTATTTTAAATATGTGACTTTTGTCTTGAAAAGTAGTAA
GCCATAGACTTGTGCAAAACAAGTTTCAAGTTTATAGATATTAAGTTTGTAAATGTGAGCATCAAATGTGTATGTA
AAAATACTTTTTACCAGTCTGGAACCTGGGAAAATCCAGGGAATTTGAAACATAGATTTTAAATGAGCTGGTAAAC

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FIGURE 813B

ACAAATCATGTCAATAAAGGTAGTCAGGATATTTTATCCTTAGCATTGCTTCTGC

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FIGURE 814

MGGAVSAGEDNEELIDNLKEAQYIRTELVEQAFRAIDRADYYLEEFKENAYKDLAWKHGNIHLSAPCIYSEVMEA
LDLQPGLSFLNLGSGTGYLSSMVGLILGPGVNHGVELHSDVIEYAKQKLDFFIRTSDFSDFKDFCEPSFVTGNC
LEISPDQSQYDRVYCGAGVQKEHEEYMKNLLKVGILVMPLEEKLTITRIGPSAWETKKILAVSFAPLIQPCHS
ESGKSRLVQLPPVAVRSLQDLARIAIRGTIKKIIHQETVSKNGNGLKNTPRFKRRRVRRRRMETIVFLDKEVFAS
RISNPSSDDNSCEDLEERERREEEKTTPETKPDPPVNFRLQKVLSPDPDPLKYLLLYREK

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FIGURE 815

CGAGGGCAGCGCCGGTCGGGAGCGCAGCGCGGCAGCTCGGCGCGCACGGCGGGAGCGGCGCGCAGTGGTCGG
GCCTGGCGGGCTGGACGGGCGCCCCCTCGCTGCCCCGCGCGCTCCCCGCCGCCCCCATGAGCGCAGCCCCGCGCGG
CCCGGGTCCGTAGGCGGGCGGGGCGCCCCCATGCTGCTGCAGCCCCGCGCGGTGCGCCCCGAGCGCGGGCTTCCCG
CGGCCCCCTGGCCGCCCCCGGCGCCATGCACGGCTCGCAGAAGGACACCACGTTACCAAGATCTTCGTGGGCGGC
CTGCCGTACCACACTACCAGCGCTCGCTCAGGAAGTACTTCGAGGGCTTCGGCGACATCGAGGAGGCCGTGGTC
ATCACCGACCGCCAGACGGGCAAGTCCCGCGGCTACGGCTTCGTGACCATGGCCGACCGGGCGGCAGCTGAGAGG
GCTTGCAAAGACCCGAACCCCATCATCGACGGCCGCAAGGCCAACGTGAACCTGGCATATCTGGGCGCCAAGCCG
CGGAGCCTCCAGACGGGCTTTGCCATTGGGGTGCAGCAGCTGCACCCACCTTGATCCAGCGGACTTACGGGCTG
ACCCCGCACTACATCTACCCACCAGCCATCGTGCAGCCCAGCGTGGTGATCCCAGCCGCCCTGTCCCGTCGCTG
TCCTCGCCCTACATTGAGTACACGCCGGCCAGCCCGGCCTACGCCAGTACCCACCGGCCACCTATGACCAGTAC
CCATACGCCGCTCGCTGCCAGGCTGCCAGCTTCGTGGGCTACAGCTACCCTGCCGCCGTGCCCCAGGCCCTC
TCAGCCGCAGCACCCGCGGGCACCACTTTCGTGCAGTACCAGGCGCCGAGCTGCAGCCTGACAGGATGCAGTGA

GGGGCGTTCTTGCCCCGAGGACTGTGGCATTGTACCTTCACAGCAGACAGAGCTGCCAGGCCATGATGGGCTGG
CGACAGCCCCGGCTGAGCTTTAGTGAGGTGCCACCAGCACCCGTGCCTCCGAAGACCGCTCGGGCATTCCGCCTGC
GCCCTGGGACAGCGGAGAGATGGCTTCTCTTTAATCTAGGTCCCATTTGTGTCTTGAGGGAGGACTTTAAGAATGA
CTGAGAACTATTTAAAGACGCAATCCCAGGTTCTTGCACACCATGGCAGCCTCTTCTTGACCTTCTCCTGCCT
CTCCACACTCCAGGTTCCCTCAGGCTTGTGTCCCCACTGCTGCATCGTGGCGGGGTGTACAGACCCTCTGCAGC
CCCTGGCTGCCCTGGACTGTGCAGAGATGCCTGACTCCAGGGAAACCTGAAAGCAAGAAGTTAATGGACTGTTTA
TTGTAACCTTGATCCTCCCGAGCTGTGAGCGCAGTCTGAGGTGTGAGGACACGGCCTCCTGTTGGAGTCCCATTTT
CTCCATCAGGGCACGTGGGCGGCTTCTCAAGCCCGGAGGAGCTCCCAGGCGCACAGGGGCCGCGGTAACAGGG
GCCGCCGGCCAAAGGCCCTTTCCAGTCATAGCACTGAAGTTGCAACTTTTTTCTTGTAATTGTTTTGCTACTAA
GATAATTTTCAAGAAGTTTCACTATTTTTTTTTCAGCGGATACTGCCGCCACCAAGAATCCAAAACCTATTTTTGACTT
GGAGAGACTTGCTTTTGTGGTTCCGCCCCGTGGAGACGACGACAGTGTCTGTATAATAAAGTGTCTGCCGGCT
CGCGGGCCAGGATCCTCTCGGTGGGATGGGCACCACAGACAGGAGGCCCTCAGGCCCGTGCGGGCCACTGTCTG
CTGCCGCTGCCGGGGTGGCAGAGTGAGTTGTCTCAGGACCCCGTCACTGCGACGTTGACACTCTCTCCTTCTT
CCTTCCCCAACTCCCCAAACACTGTGGAAGGGAAGAAGGAAGTGATCCACAGCATTAGGCCACTTGGGGTCTAG
ACCATGGTGGTGCCAGCCTGGGGGGGCGAGTGGCCCTCAGCTCTGCCCGCTGGAGCGGTTGAGTGCAGAAGGGTG
CGCTCTTCCCTCTACCCCCGCACCACCTGCTGTGTGCCAGCCTGAGACGGTTCCTGCCTGTCTTGGGGGTGGT
GGAGGGTGGAGGCAGTTCTGCCAGCCGTGGCAGGGCTGCTATGGGGCATCCAGGGCTGTGGGGGTCTGGAGGAGG
GGACATGAGGTGAGAGGTATCCTGGCCGAGGGCGGGGGGCAGCGGGGGTCTCCCTCCGGACCTACCTCAGGGAG
CTGAGCGTGCAGGCGCTCCAGGGCAGGCCTGGGACAGAGTCAAGGCTCAGAGAATAAAGGTAGCTAATCTCATCA
TAATATTTTTATTAGAATGTTCTGATGATAAAAATAAACTTGTTTTCTTT

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FIGURE 816

MHGSQKDTTFTKIFVGGLPYHTTDASLRKYFEGFGDIEEAVVITDRQTGKSRGYGFVTMADRAAAERACKDPNFI
IDGRKANVNLAYLGAKPRSLQTGFAIGVQQLHPTLIQRTYGLTPHYIYPPAIVQPSVVIPAAPVPSLSSPYIEYT
PASPAYAQYPPATYDQYPYAASPATAASFVGYSYPAAVPQALSAAAPAGTTTFVQYQAPQLQPDRMQ

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FIGURE 817

GAGCCCAGCCGAGCGTCCGCCGCTGCCCGTGCGCCTCTGCGCTCCGCGCCATGGCCGGCCTCAACTCCCTGGAGG
CGGTGAAACGCAAGATCCAGGCCCTGCAGCAGCAGGCGGACGAGGCGGAAGACCGCGCGCAGGGCCTGCAGCGGG
AGCTGGACGGCGAGCGCGAGCGGCGGAGAAAGCTGAAGGTGATGTGGCCGCCCTCAACCGACGCATCCAGCTCG
TTGAGGAGGAGTTGGACAGGGCTCAGGAACGACTGGCCACGGCCCTGCAGAAGCTGGAGGAGGCAGAAAAAGCTG
CAGATGAGAGTGAGAGAGGAATGAAGGTGATAGAAAACCGGGCCATGAAGGATGAGGAGAAGATGGAGATTCAGG
AGATGCAGCTCAAAGAGGCCAAGCACATTGCGGAAGAGGCTGACCGCAAATACGAGGAGGTAGCTCGTAAGCTGG
TCATCCTGGAGGGTGAGCTGGAGAGGGCAGAGGAGCGTGCGGAGGTGTCTGAACTAAAATGTGGTGACCTGGAAG
AAGAACTCAAGAATGTTACTAACAATCTGAAATCTCTGGAGGCTGCATCTGAAAAGTATTCTGAAAAGGAGGACA
AATATGAAGAAGAAATTAACTTCTGTCTGACAACTGAAAGAGGCTGAGACCCGTGCTGAATTTGCAGAGAGAA
CGGTTGCAAACTGGAAAAGACAATTGATGACCTGGAAGAGAAAAGTTGCCAGGCCAAAGAAGAGAACGTGGGCT
TACATCAGACACTGGATCAGACACTAAACGAACCTTAAGTGTATATTAAGCAAAAACAGAAGAGTCTTGTTCACAG
AAACTCTGGAGCTCCGTGGGTCTTTCTCTTCTTGTGAAGAAGTTCCTTTTGTATTGCCATCTTCGCTTTTGCTG
GAAATGTCAAGCAAATTATGAATACATGACCAAATATTTTGTATCGGAGAAGCTTTGAGCACCAGTTAAATCTCA
TTCCTTCCCTTTTTTTTTTCAAATGGCACCAGCTTTTTCAGCTCTCTTATTTTTTCCCTTAAGTAGCATTTATTCCT
AAGGTAGGCAGGGTATTTTCCTAGTAAGCATACTTTCTTAAGACGGAGGCCATTTGGTTCCTGGGAGAATAGGCAG
CCCCACACTTTGAAGAATACAGACCCCAGTATCTAGTCGTGGATATAATTAAAACGCTGAAGACCATAACCTTTT
GGGTCAACTGTTGGTCAAACATATAGGAGAGACCAGGGACCATCACATGGGTAGGGATTTTCCATCCAGAGCCAAT
AAAAGGACTGGTGGGGGCCGGGGTGGCTATTGTGGGAAGTCATAACCCACAGATAGATCAACCTAAGAATCCTG
GCCTTCTCCACTCTCCACCATGCAGGACAAACATCTTCTCAAGCAGTCAACGTAGAATGCTTGGGAAATAGTCA
TAATTACCCACATATAGTAATTAATAGATGGTAATTAATTGATCCTTGATGTGATGTTCTTTGCATATTTCTT
CATTCTAAAGTTGTTCCCTGGCCGGGAGCGTTTGCTTTTCGCCTGTAATCCCAACACTTTGGGAGGCCAGGACAGA
TCACTTGAGGTCAGGAGTTCGAGACCAGCCCAGCCAACATGGCGAAAACCATGTCTCTACTAAAAATACAAAATT
ATGGTGACGCCTGCCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGAGGATCGCTTGAACCCAGGAAGTGGAG
ACTGCAGTGAGCCGATATCGCACCACAGCGCTCCAGCCTGGTCGACAGAGTGAGACTCCATCTCAAGAAAAATA
AAAAATAAGTTGTTCTCTGAAGAGCAAATGTCTCATTCCAGTAATGACCCACTCAGCAGGAATATGGTGGAGTTC
AGTCCAATTCAGGTCAGCCATATCCAAAAGACCACAAGTCATTACTAAGTTGAGCAAAAGAGTTTTTATCTATTA
GCAGAAAGGGCCTCTCTGGCAGCAGAGATTAAAACTGGCCCAACTTCATTTCCTACTTCAGGGAACAGCAAAT
TGAGGATTTACTTATCTAGGACTT

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FIGURE 818

MAGLNSLEAVKRRIQALQQQADEAEDRAQGLQRELDGERERREKAEGDVAALNRRIQLVEEELDRAQERLATALQ
KLEEAEKAADESERGMKVNIENRAMKDEEKMEIQEMQLKEAKHIAEEADRKYEEVARKLVILEGELERAEEAEVS
ELKCGDLEEELKNVTNNLKSLEAASEKYSEKEDKYEEEIKLLSDKLKEAETRAEFAERTVAKLEKTIDDLEEKLA
QAKEENVGLHQTLDQTLNELNCI

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FIGURE 819A

CGGCACCGTCGTAGGTGCGGGCCGCATGAATGGAGCGCCGGCGTAAGGCAAAGCCTGGCACCGTCTGCGCGGCC
GCTATCTGCTCCCGGAGCGTGAGTGCGGGGTGTGGGGCGTGCGCGCTCAGAGGGGGCTCAAGGCGAGCG
CGCCGGGCAGTTGCGGGCGCGTGCGTGTGAGGTTGGCGCGGTGCCGCGCGCCGACGGGCCGGTGGTTGCGGG
GCCTCCCGCCTCGACCCGGGCTGGGGGCAGCCGTGGCGGGCGCCGGGGACCGCAAGGGGCGGAGGAAAGGAGGGG
GCCGGTCCCGGCACGCAGAGGAGCAGCCGACCATGCCCCGAGACAACATGGCCTCCTTGATCCAACGGATCGCCC
GCCAGGCTTGCTCACCTTCCGGGGCAGCGGGGGCGGCCGCGCGCTTCCGATCGCGACGCGGCTTCTGGCGCGG
AGGCGCCGATGCAGCCGGGCTTCCCCGAGAACCTGAGCAAGCTGAAGAGCCTCCTGACCCAGCTCCGCGCCGAGG
ACTTGAACATCGCCCCGCGCAAGGCCACACTGCAGCCGCTGCCGCCAACCTGCCGCCAGTCACCTACATGCACA
TCTACGAGACGGACGGCTTCAGCCTGGGCGTGTTCTGCTCAAGAGCGGCACGTCCATCCCGCTGCACGACCACC
CGGGCATGCACGGCATGCTCAAGGTGCTGTACGGCACCGTGCGCATCAGCTGCATGGACAAGCTAGACGCGGGCG
GCGGGCAACGGCCGCGGGGCTTGCCGCCCGAGCAGCAGTTGAGCCGCCGCTGCAGCCCCGGGAGCGAGAAGCCG
TGCGGCCGGGCGTGCTGCGTTGCGGGGCCGAGTACACCGAGGCCAGCGGCCCTGCATCCTCACACCGCACCGGG
ACAACCTGCACCAGATCGACGCCGTGGAAGGGCCTGCCGCCCTTCTGGACATCCTGGCCCCGCCCTACGACCCGG
ACGATGGCCGGGACTGCCACTATTACCGGGTGCTGGAGCCGGTCAGGCCCAAGGAGGCCTCCAGCTCGGCCTGTG
ACCTGCCTCGAGAGGTGTGGCTCCTGGAGACCCACAGGCCGATGACTTCTGGTGCGAGGGAGAACCCTATCCAG
GTCCAAGGTCTTCCCTTGAAGCCACTGGCGCCAGGAGCGGTGGGCCGAAGACGTGCCCTACCCTACCACAAGG
GCTGTGTCTTACCCCTAGCCTGGGCGTTGGATCTACTGGAATGAGCAGCAGCCGCTTCTCGGCAGCCTTGGG
AAGCACGGGCGACTGGACAGCAGCCGCCGGGCACGGTTATGGGGGCGGGGTGGGCGGGGAGGCTAGATTGTTTCC
TGGTACTGTCACTGCCACTGGGGCTTTGATTTGGAGGAATGGGGCAGGGGACTATCTGAAGCGCTTCCATCTAA
AGCCATAATGAAAATATCTTCTCTCTTCCCCATTCTATACAAAATACTAAGTGGTTTTCTTGCTCCCACTCCCT
ACCCCTTAGTTAAATAGGGTTTTATTTTCCACTCATGCCCTTATGCCTTTTTTTCTTATAGTTTTTTAACTTATTG
ACTGTGCATGACCCAGTGGTTTGAATTGTTTTTAGTTCAAGTCATTGGTAAAACTAGGTTTAAAGGAGATGAGCT
ACTGTTTAAAGTGAGCTGGCCTGCCTAATTAATTCTTGTGAAAATAAATGATTTTTTTCAGTTTGGGGATCATT
CTCACAACTAATATGATGTAGAGGACAAGATTTATTTTCTTTTCTCCCTTTGCCAGTAGCCACATCTGGTT
TACTCAGGCAGCATCTACTAAGAAATTCAGCACCTGCATATCTCTGTGACATGGTCACTTAGAGCTTATCTTCCC
TATGAATCTCCAGATCTGTGAGTCGAGCAGATTTTATGTTGCAGATTCACCTTTAATGCAAAGACTGTATTATCC
TCACATGACTTTTTTTCTTGCTTACTGTACCTTAAAAGGTGATAGAGTAATTCTGTATTTTTCTAACGGGAAGAT
TCAAAGGAGCTGAATGTGTTATGCTTCAAACAACCTGAATGTAAAACACTCCTAGCCAGTTGTTGCATTCCCTAT
ATTTATTTACTTCCAATATTTTACTGTAAAGTAGGGAGAAATATTATGTTGATAGTTGTTTCATATTCTCTCAG
GAACCTTAAATGTTCCCGACTCGGGTGATTCCAGCTGTGTTGCTGGCAGTGTTGTCTCAACCTCTCCCTAAAATG
ACTGAGCCCTGGGTTTCTAATGTGGTTTTCTTAGGAAGAGATAGAAGGCACAGAAGATCACAGCTAGAGAAT
TGAGAATTAATACTACTAGCCATTTTAGGGCACAAAACCTGGGATTAAACACTTCTACTTCCCACTCCCA
ACTCCTGAAATGAAGTCTTGCTATCTGTGACTAGTTTTATTTTGTGCTTTTAAATAGTCCGAGCAGTCTTACCTT
GTTTACACATGTATTGACACCATTTGCTTCAGGCCATGGAGCACTGTTTCTCCCTTTTACTATTTATAGGATTC
CGTTTTTTCACAAGACTTTTAAATAAAAAGAAATTGTAGAAATAAACACATTAAATTTGCCAGCTGTCGTCTAA
GCCCTCTTGATTGACTTGCCCAAGTGGCAATAGAGTTCTAATATCTATAATAAAGGGAGATTGTCTATTATTAGT
GGAATGTTGACCCCGTATGTAGAGAAACAGTACGTGCCTTTGCCTCTTATGCACACAGAGACCCAGGGTGAGGG
AGTATTTGTTCCAGTTTTTAAAGATAGTATAAAAAAGCAAATACTTGGTGAGTGATTTAAAAATAAAACCAAAC
AAAACACAAAAAGATATTCCACAGGACATGCCACTTTATTATAAAACCTGACACAGGCATAGTACCAAGTATTTT
CTGCATTGTTGCTAAAATTGTTTTATTGTAGCTCCACATTCTGGTGATGTTTAAATGCCTTTGGGGGCAGTTTG
AAGCAGTTCTTCATGCCACTTAGTTTGAATAAAAATTCTAGATATGCAAATGATTTTCTTAGAAAACCTTCACAA
AATAAAAGATCTTGTTTTTTTTTCCATAGCACAGTAATGAATGTGGTTATCAATCACATACTTTTTTGGATTATA
TTGTAGCAAAAAGTTGATTAGCTTACCAAGATTATTAATAGCAATGTATGTGTTATAATACTTAGTACATTA
AAGCTACGAAAACCTATCCTGGCTGTAGGATAGTAATAAAGGAAGAATTATGACTTCATTATGAAAAAAGAAGT
TTTAAAGTTTTCAATTACGAGCAATTTGGAAGAAAAAACCTAAGGTGCTTTTCAAAGAGTAAGTGAATTTGTTG
CAGGCCAAAACAGCAATATGATATCTCAGATTTAGTTCAATAAGAACAGTGAAACTTTTGGTTCACTAATAAATT
CTGAGTAAATTAGTGGTGAAGACAAAATATAACTTGTTTTAGTGAGCCACTGAGGAAAGAATATGCTTATTACAA
AGACAAAATGTGGTGCAGAACTATCTTGACCTGTGTGCATAAACTGTTAGTCGTGACTGACTTGGTGTGTTGC

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FIGURE 819B

TATTGTGTTTCTATATACTCCGTCCAATATAGATAATGTTTTAATAACAACGTGTTGGGATAAAAGTTATCTTCCCC
TTGGAAAGACTAATGAGCACAATGATATTAATCACTTTTATGGTGAATAATAAATGCAATAATTGCCTCATGGGT
GAGAAATTGTCTGTCC

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FIGURE 820

MPRDNMASLIQRIARQACLTRGSGGGRGASDRDAASGAEAPMQPGFPENLSKLKSLLTQLRAEDLNIAPRKATL
QPLPPNLPPVTYMHYETDGFSLGVFLLKSGTSLPLHDHPGMHGMLKVLYGTVRISCMDKLDAGGGQRPRALPPE
QQFEPPLQPREREAVRPGVLRSAEYTEASGPCILTPHRDNLHQIDAVEGPAAFLDILAPPYDPDDGRDCHYYRV
LEPVRPKEASSACDLPREVLLETTPQADDFWCEGEPYPGPKVFP

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FIGURE 821

GGGGGAGAGGGGGCTCAAGGCGAGCGCGCCGGGCAGTTGCGGGCGCGTGGCTGCTGAGGTTGGCGGGCGGTGCCGC
GCGCCCCGACGGGGCCGGTGGTTGCGGGGCTCCCGCCTCGACCCGGGCTGGGGGCAGCCGTGGCGGCCGCCGGGGA
CCGCAAGGGGCGGAGGAAAGGAGGGGGCCGGTCCCGGCACGCAGAGGAGCAGCCGACCATGCCCGAGACAACAT
GGCCTCCTTGATCCAACGGATCGCCGCCAGGCTTGCTCACCTTCCGGGGCAGCTGGGGCGGCCGCGGCGCTTC
CGATCGCGACGCGGCTTCTGGCGCGGAGGCGCCGATGAGCCGGGCTTCCCCGAGAACCTGAGCAAGCTGAAGAG
CCTCCTGACCCAGCTCCGCGCCGAGGACTTGAACATCGCCCCGCGCAAGGCCACACTGCAGCCGCTGCCGCCAA
CCTGCCGCCAGTCACCTACATGCACATCTACGAGACGGACGGCTTCAGCCTGGGCGTGTTCCTGCTCAAGAGCGG
CACGTCCATCCCGCTGCACGACCACCCGGGCATGCACGGCATGCTCAAGGTGCTGTACGGCACCGTGCGCATCAG
CTGCATGGACAAGCTAGACGCGGGCGGCGGGCAACGGCCGCGGGCCTTGCCGCCCGAGCAGAGTTTCGAGCCGCC
GCTGCAGCCCCGGGAGCGAGAAGCCGTGCGGCCGGGCGTGTGCGTTCGCGGGCCGAGTACACCGAGGCCAGCGG
CCCCCTGCATCCTCACACCGCACCGGGACAACCTGCACCAGATCGACGCCGTGGAAGGGCCTGCCGCCTTCCTGGA
CATCCTGGCCCCGCCCTACGACCCGGACGATGGCCGGGACTGCCACTATTACCGGTGCTGGAGCCGGTCAGGCC
CAAGGAGGCCCTCAGCTCGGCCTGTGACCTGCCTCGAGAGGTGTGGCTCCTGGAGACCCACAGGCCGATGACTT
CTGGTGCAGGGAGAACCCTATCCAGGTCCCAAGGTCTTCCCTTGAAAGCCACTGGCGCCCAGGAGCGGTGGGCCG
AAGACGTGCCCTACCCTACCACAAGGGCTGTGTCTCTACCCCTAGCCTGGGCGTTGGATCTACTGGAATGAGCA
GCAGCCGCTTCCTCGGCAGCCTTGGAAGCACGGGCGACTGGACAGCAGCCGCCGGGCACGGTTATGGGGGCGGG
GTGGGCGGGGAGGCTAGATTGTTTCTGTTACTGTCACTGCCACTGGGGCTTTGATTTGGAGGAATGGGGCAGGG
GACTATCTGAAGCGCTTCCATCCTAAAGCCATAATGAAAATATCTTCTCTTCCCCATTCTATACAAAATACT
AAGTGGTTTTCTTGCTCCCACTCCCTACCCCTTAGTTAAATAGGGTTTATTTTCCACTCATGCCCTTATGCCTTT
TTTTCTTATAGTTTTTTAACTTATTGACTGTGCATGACCCAGTGGTTTGAATTGTTTTTAGTTCAAGTCATTGGT
AAAACTAGGTTTAAAGGAGATGAGCTACTGTTTAAAGTGAGCTGGCCTGCCTAATTAATTCTTGTGAAAATAA
ATGATTTTTTTCAGTTTGGGGATCATTCTCACAACATAACTATGCATGTAGAGGACAAGATTTATTTTCTTTCCTC
CCTTTGCCCAGTAGCCACATCTGGTTTACTCAGGCAGCATCTACTAAGAAATTCAGCACCTGCATATCTCTGTGA
CATGGTCACTTAGAGCTTATCTTCCCTATGAATCTCCAGATCTGTGAGTCGAGCAGATTTTCATGTTGCAGATTCA
CCTTTAATGCAAAGACTGTATTATCCTCACATGACTTTTTTTCTTGTCTTACTGTACCTTAAAGGTGATAGAGT
AATTCTGTATTTTCTAACGGGAAGATTCAAAGGAGCTGAATGTGTTATGCTTCCAAACAACCTGAATGTAAACAC
TCCTAGCCAGTTGTTGCATTCCCTATATTTATTTACTTCCAATATTTTACTGTAAAAGTAGGGAGAAATATTATG
TTGATAGTTGTTTCATATTCTCTCAGGAACCTTAAATGTTCCCGACTCGGGTGATTCCAGCTGTGTTGCTGGCAGT
GTTGTCTCAACCCTCTCCCTAAAATGACTGAGCCCTGGGTTTCTCTAATGTGGTTTTCTTAGGAAGAGATAGAA
GGCACAGAAGATCACAGCTAGAGAATTGAGAATTAATACTACTAGCCATTTTAGGGCACCAAACTTGGGAT
TAAACACTTCTACTTCCCACTCCCACTCCTGAAATGAAGTCTTGCTATCTGTGACTAGTTTTATTTTTGTGCT
TTAATAGTCCGAGCAGTCTTACCTTGTTTACACATGTATTGACACCATTTGCTTCAGGCCATGGAGCACTGTTT
CTCCCTTTTTTACTATTTATAGGATTCCGTTTTTTCACAAGACTTTAATAAAAAGAAATTGTAGAAATAAACAC
ATTAATAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 822

MQPGFPENLSKLKSLTQLRAEDLNIAPRKATLQPLPPNLPPVTYMHYETDGFSLGVFLLKSGTSIPLHDHPGM
HGMLKVLYGTVRISCMDKLDAGGGQRPRALPPEQQFEPPLQPREREAVRPGVLRRAEYTEASGPCILTPHRDNL
HQIDAVEGPAAFLDILAPPYDPDDGRDCHYYRVLEPVRPKEASSACDLPREVWLETPQADDFWCEGEPYPGPK
VFP

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FIGURE 823

ATGCCCCCTAGGTCTCCTGTGGCTGGGCCTAGCCCTGTTGGGGGCTCTGCATGCCCAGGCCCAGGACTCCACCTCA
GACCTGATCCCAGCCCCACCTCTGAGCAAGGTCCCTCTGCAGCAGAACTTCCAGGACAACCAATTCCAGGGGAAG
TGGTATGTGGTAGGCCTGGCAGGGAATGCAATTCTCAGAGAAGACAAAGACCCGCAAAAGATGTATGCCACCATC
TATGAGCTGAAAGAAGACAAGAGCTACAATGTCACCTCCGTCTGTTTAGGAAAAAGAAGTGTGACTACTGGATC
AGGACTTTTGTTCAGGTTGCCAGCCCGGCGAGTTCACGCTGGGCAACATTAAGAGTTACCCTGGATTAAACGAGT
TACCTCGTCCGAGTGGTGAGCACCAACTACAACCAGCATGCTATGGTGTCTTCAAGAAAGTTTCTCAAAACAGG
GAGTACTTCAAGATCACCTCTACGGGAGAACCAAGGAGCTGACTTCGGAACTAAAGGAGAAGTTTCATCCGCTTC
TCCAAATATCTGGGCCTCCCTGAAAACCACATCGTCTTCCCTGTCCAATCGACCAGTGTATCGACGGCTTGA

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FIGURE 824

MPLGLLWLGLALLGALHAQAQDSTSDLIPAPPLSKVPLQQNFQDNQFQGKQWYVVGLAGNAILREDKDPQKMYATI
YELKEDKSYNVTSVLFRKKKCDYWIRTFVPGCQPGFTLGNIKSYPGLTSYLVRVSTNYNQHAMVFFKKVSQNR
EYFKITLYGRKELTSELKENFIRFSKYLGLPENHIVFPVPIDQCIDG

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FIGURE 825

CACCGTCCGCAGCCCCGAGCGCCCCGGAGCCGCAGGCGCCGCCGCGCAGAGACGCCGCGGCTGCGACTAGGCGCGC
CCAGCCGCACGTGGCGGACCCGCCCCAGGCCCGCAGTGTCTTGACCCCGCAGGCCTCCGCTCTCCTGTCTCTG
GCCCCGTCCCCAGGGCCGCGATGAGCTTCTTGAGCCGACAGCAGCCGCCGCCACCCGCGCGCCGGGGCGGCCT
GCACCTTGCGGCAGAAAGCTGATCTTCTCGCCCTGCAGCGACTGTGAGGAGGAGGAAGAAGAGGAGGAGGAGGAGG
GCAGCGGCCACAGCACCGGGGAGGACTCGGCCTTTCAAGAGCCCGACTCGCCGCTGCCGCCGAGCGGAGCCCCA
CGGAGCCCCGGGCCGAGCGCCCGCTCGCCCGGGCGGCCCGCCGAGCCCGGCGAGCTGGAGGAGGACCTGT
TGCTGCCCGGCGCCTGCCCGGGCGCGGACGAGGCGGGCGGTGGGGCGGAGGGCGACTCGTGGGAGGAGGAGGGCT
TCGGCTCCTCGTCGCCGGTCAAGTCGCCGGCGGCCCTACTTCTGGGTAGCTCTTTCTCGCCGGTGCCTGCG
GCGGCCAGGAGATGCGTCGCCCGGGGTGCGGGGCGCGCCGGGCGGGCGAAGGCCCGCGCTCGCCGCGGCCGG
ACCACCCGGGCACCCCGCCACACAAGACCTTCCGCAAGCTGCGACTCTTCGACACCCCGCACACGCCCAAGAGTT
TGCTCTCCAAAGCTCGGGGAATTGATTCCAGCTCTGTTAAACTCCGGGGTAGTTCTCTCTTTCATGGATACAGAAA
AATCAGGAAAAAGGAATTTGATGTGCGACAGACTCCTCAAGTGAATATTAATCCTTTTACTCCGGATTCTTTGT
TGCTTCATTCTCAGGACAGTGTCTGTCGTAGAAAGAGAACGTATTGGAATGATTCTGTGGTGAAGACATGGAAG
CCAGTGATTATGAGCTTGAAGATGAAACAAGACCTGCTAAGAGAATTACAATTACTGAAAGCAATATGAAGTCCC
GGTATACAACAGAAATTTTCATGAGCTAGAGAAAATCGGCTCTGGAGAATTTGGTTCTGTATTTAAGTGTGTGAAGA
GGCTGGATGGATGCATTTATGCCATTAAGCGATCAAAAAAGCCATTGGCGGGCTCTGTTGATGAGCAGAACGCTT
TGAGAGAAGTATATGCTCATGCAGTGTGGACAGCATTCTCATGTAGTTCGATATTTCTCTGCGTGGGCAGAAG
ATGATCATATGCTTATACAGAATGAATATTGTAATGGTGAAGTTTAGCTGATGCTATAAGTGAAACTACAGAA
TCATGAGTTACTTTAAAGAAGCAGAGTTGAAGGATCTCCTTTTGCAAGTTGGCCGAGGCTTGAGGTATATTCATT
CAATGTCTTTGGTTCACATGGATATAAAACCTAGTAATATTTTCATATCTCGAACCTCAATCCCAAATGCTGCCT
CTGAAGAAGGAGACGAAGATGATTGGGCATCCAACAAAGTTATGTTTAAATAGGTGATCTTGGGCATGTAACAA
GGATCTCCAGTCCACAAGTTGAGGAGGGCGATAGTCGTTTCTTGCAAATGAAGTTTACAGGAGAATTATACCC
ATCTACCAAAAGCAGATATTTTTGCGCTTGCCCTCACAGTGGTATGTGCTGCTGGTGTGAACCTCTTCCGAGAA
ATGGAGATCAATGGCATGAAATCAGACAGGGTAGATTACCTCGGATACCACAAGTGCTTTCCCAAGAATTTACAG
AGTTGCTAAAAAGTTATGATTATCCAGATCCAGAGAGAAGACCTTCAGCAATGGCACTGGTAAAGCATTACAGTAT
TGCTGTCCGCTTCTAGAAAGAGTGCAGAACAATTACGAATAGAATTGAATGCCGAAAAGTTCAAAAATTCATTTT
TACAAAAAGAACTCAAGAAAGCACAGATGGCAAAAGCTGCAGCTGAGGAAAGAGCACTCTTCACTGACCGGATGG
CCACTAGGTCCACCACCCAGAGTAATAGAACATCTCGACTTATTGGAAAAGAAAATGAACCGCTCTGTACGCTTA
CTATATACTGAGCTACTCCTTTCCACCTCCCCCTGAACACTGTGACAAGAGGAAGCTAGGTTGAAATCACTGAT
AGAATCCAGTTTGCAATTACTTTCTCGATTGGTGTGAGTAGTTTTACTGATTAGGACTTTTATTGTGAATTACAG
TTGAAAGCTGTATTTTGATGATTGCTATGTGAGGCTTTCATCTAATCTTACCAGTCTGTCTTCTGTAGGATGTGT
CACTGTTGGATGTTACACCAGCCTTTCCAGGGTTAACCCTGTGGTGGTGTGCTGCTTATAGTTTGCTGTTGCAT
TGTAATAAAAGGTGTCTTTCCCTGTAGTGACCTGTAAAAAGTACTCAAGGGCTTTATTACAGACATACCCTCCCT
TTGAAAAGGGACATGCTAAAAGACTCATTACTACTCAGCCTTCAATGTACCTGTGTGTCCATCTTATATTTCTTT
TTTTTTAATTGTGAATTAGACTTGTATATCCCACTGGGAGCACTTTGTAGGCATTGCATGAACCATGGGATGAT
GATTCTGTGGAGGATTGCCTTGTGAATTTGCTGCTATTTTAGTTTTGTCTTTGCTGTAACTTGTAGCATTAAA
CAATCATTGTTGTTAATAGGTCTTCTTTTTGAAACAATTATGTGAAATGTATAGCTGCTTTTGATGGAAAGCAGC
TATTTGCCTTTTTTTTTTCTTTGAACTTTGAAGCTAGTGCAATGGAAAAATGCACCTTTCCCTCCTTTGGAA
TGCTGTATTAATGTAGTATAATAATTACTGGTTTTGTAACCTGTTCTGGTAATGTCCTTCCCGGACTCTTTTTAA
ATGTCTCCCCCTAAGTTTTATACTTGATTGTATTATTAGTCTGTTTTAAATGTTTTGCCCGTTTTTCTCTTCA
ATATTTGTGTATATAAACCGATCTTCGTGATACTGTACATAGCTGTTTGAAATGCCAGAATGACTTCTGACATTC
CAAGTTTTTTCACAAAATATATTTATCTGTGATTAGCCATTTGACTAATAACTGGCTAACAGATGTTGAAAAA
AATTGTCTGTTTTCTCATTAATTTTGGTCTAAAACATGTTTGCACCTGTCTTTGACTTGTGTTTTATTAACATTG
ATTGGCATATTAAGTCACTCTGAGCTT

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FIGURE 826

MSFLSRQQPPPPRRAGAACTLRQKLIFSPCSDCEEEEEEEEEEGSGHSTGEDSAFQEPDSPLPPERSPTTEPGPER
RRSPGPAPGSPGELEEDLLLPGACPGADEAGGGAEGDSWEEEGFGSSSPVKSPAAPYFLGSSFSPVRCGGPGDAS
PRGCGARRAGEGRRSPRDPHGTTPHKTFRKLRLFDTPHTPKSLLSKARGIDSSSVKLRGSSLFMDTEKSGKREF
DVRQTPQVNINPFTPDSLLHSSGQCRRRKRTYWNDSCGEDMEASDYELEDETRPAKRITITESNMKSRYTTEFH
ELEKIGSGEFGSVFKCVKRLDGCIIYAIKRSKKPLAGSVDEQNALREVIYAHAVLGQSHVVRYSAWAEDDHMLIQ
NEYCNGGSLADAISENYRIMSYFKEAELKDLLQVGRGLRYIHMSLVHMDIKPSNIFISRTSIPNAASEEGDED
DWASNKVMFKIGDLGHVTRISSPQVEEGDSRFLANEVLQENYTHLPKADIFALALTVVCAAGAEPLPRNGDQWHE
IRQGRLPRIPQVLSQEFTELLKVMIHDPERRPSAMALVKHSVLLSASRKSAEQLRIELNAEKFKNSLLQKELKK
AQMAKAAAEERALFTDRMATRSTTQSNRTSRLIGKKMNRSVSLTIY

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FIGURE 827A

TTGCTGCGTCAACTGTGTTCCCTTTGGCCTGGCTGAGTTTGATACTGTGGGGATTTCAGTTTAGGCGCTGGCCCGA
GGATATCCACGCGGTGGTACTTCGGAGACACCTGTCTGCATCTGACTGAGCCGGCTCTCCTGGCCTCGCGCTGCA
CATTCTCTCCTGGCGGGCGGCCACCTGCAGTAGCGTTTCGCCCCGAACATGGCGACACGGAGCAGCAGGAGGGAGT
CGCGACTCCCGTTCCCTATTACCCCTGGTTCGCACTGCTGCCGCCCGGAGCTCTCTGCGAAGTCTGGACGCAGAGGC
TGCACGGCGGCAGCGCGCCCTTGCCCCAGGACCGGGGCTTCCTCGTGGTGCAGGGCGACCCGCGCGAGCTGCGGC
TGTGGGCGCGCGGGGATGCCAGGGGGGCGAGCCGCGCGGACGAGAAGCCGCTCCGGAGGAAACGGAGCGCTGCC
TGCAGCCCCGAGCCCATCAAGGTGTACGGACAGGTTAGTCTGAATGATTCCACAATCAGATGGTGGTGCAGTGGG
CTGGAGAGAAAAGCAACGTGATCGTGGCCTTGCCCCGAGATAGCCTGGCATTGGCGAGGCCCAAGAGCAGTGATG
TGTACGTGTCTTACGACTATGGAAAATCATTCAAGAAAATTTTCAGACAAGTTAACTTTGGCTTGGGAAATAGGA
GTGAAGCTGTTATCGCCAGTTCTACCACAGCCCTGCGGACAACAAGCGGTACATCTTTGCAGACGCTTATGCCC
AGTACCTCTGGATCACGTTTGACTTCTGCAACACTCTTCAAGGCTTTTCCATCCCATTTGCGGCAGCTGATCTCC
TCCTACACAGTAAGGCCTCCAACCTTCTCTTGGGCTTTGACAGGTCCCACCCCAACAAGCAGCTGTGGAAGTCAG
ATGACTTTGGCCAGACCTGGATCATGATTTCAGGAACATGTCAAGTCTTTTCTTGGGGAATTGATCCCTATGACA
AACCAAATACCATCTACATTGAACGACACGAACCTCTGGCTACTCCACTGTCTTCCGAAGTACAGATTTCTTCC
AGTCCCGGGAAAACCAGGAAGTGATCCTTGAGGAAGTGAGAGATTTTCAGCTTCGGGACAAGTACATGTTTGCTA
CAAAGTGGTGCATCTCTTGGGCAGTGAACAGCAGTCTTCTGTCCAGCTCTGGGTCTCCTTTGGCCGGAAGCCCCA
TGAGAGCAGCCAGTTTGTGACAAGACATCCTATTAATGAATATTACATCGCAGATGCCTCCGAGGACCAGGTGT
TTGTGTGTGTCAGCCACAGTAACAACCGCACCAATTTATACATCTCAGAGGCAGAGGGGCTGAAGTTCTCCCTGT
CCTTGGAGAACGTGCTCTATTACAGCCAGGAGGGGCGGCAGTGACACCTTGGTGAGGTATTTTGCAATGAAC
CATTGCTGACTTCCACCGAGTGGAAGGATTGCAAGGAGTCTACATTGCTACTCTGATTAATGGTTCTATGAATG
AGGAGAACATGAGATCGGTATCACCTTTGACAAAGGGGGAACCTGGGAGTTTCTTCAGGCTCCAGCCTTCACGG
GATATGGAGAGAAAATCAATTGTGAGCTTTCCAGGGCTGTTCCTTCATCTGGCTCAGCGCCTCAGTCAGCTCC
TCAACCTCCAGCTCCGAGAAATGCCATCCTGTCCAAGGAGTCGGCTCCAGGCCTCATCATCGCCACTGGCTCAG
TGGGAAAGAACTTGGCTAGCAAGACAAACGTGTACATCTCTAGCAGTGCTGGAGCCAGGTGGCGAGAGGCACTTC
CTGGACCTCACTACTACACATGGGGAGACCACGGCGGAATCATCACGGCCATTGCCAGGGCATGGAAACCAACG
AGCTAAAATACAGTACCAATGAAGGGGAGACCTGGAAAACATTATCTTCTCTGAGAAGCCAGTGTTTGTGTATG
GCCTCCTCACAGAACCTGGGGAGAAGAGCACTGTCTTACCATCTTTGGCTCGAACAAGAGAATGTCCACAGCT
GGCTGATCCTCCAGGTCAATGCCACGGATGCCTTGGGAGTTCCCTGCACAGAGAATGACTACAAGCTGTGGTCAC
CATCTGATGAGCGGGGAATGAGTGTTTGTGTTGGACACAAGACTGTTTTCAAACGGCGGACCCCCCATGCCACAT
GCTTCAATGGAGAGGACTTTGACAGGCCGGTGGTTCGTGTCCAAGTCTCTGACCCGGGAGGACTATGAGTGTG
ACTTCGGTTTCAAGATGAGTGAAGATTTGTGATTAGAGGTTTGTGTTCCAGATCCGGAATTTTCTGGAAAGTCAT
ACTCCCCTCCTGTGCCTTGCCCTGTGGGTTCTACTTACAGGAGAACGAGAGGCTACCGGAAGATTTCTGGGGACA
CTGTAGCGGAGGAGATGTTGAAGCGCGACTGGAAGGAGAGCTGGTCCCTGTCCCCTGGCAGAAGAGAACGAGT
TCATTCTGTATGCTGTGAGGAAATCCATCTACCGCTATGACCTGGCCTCGGGAGCCACCGAGCAGTTGCCTCTCA
CCGGGCTACGGGCAGCAGTGGCCCTGGACTTTGACTATGAGCACAACTGTTTGTATTGGTCCGACCTGGCCTTGG
ACGTCATCCAGCGCCTCTGTTTGAATGGAAGCACAGGGCAAGAGGTGATCATCAATTCTGGCCTGGAGACAGTAG
AAGCTTTGGCTTTTGAACCCCTCAGCCAGCTGCTTTACTGGGTAGATGCAGGCTTCAAAAAGATTGAGGTAGCTA
ATCCAGATGGCGACTTCCGACTCACAATCGTCAATTCTCTGTGCTTGATCGTCCCAGGGCTCTGGTCTCTCGTGC
CCCAAGAGGGGGTGATGTTCTGGACAGACTGGGGAGACCTGAAGCCTGGGATTTATCGGAGCAATATGGATGGTT
CTGCTGCCATACCTGGTGTCTGAGGATGTGAAGTGGCCCAATGGCATCTCTGTGGACGACCAGTGGATTTACT
GGACGGATGCCTACCTGGAGTGATAGAGCGGATCACGTTTCAGTGGCCAGCAGCGCTCTGTCAATTCTGGACAACC
TCCCGCACCCCTATGCCATTGCTGTCTTTAAGAATGAAATCTACTGGGATGACTGGTTCACAGCTCAGCATATTCC
GAGCTTCCAAATACAGTGGGTCCAGATGGAGATTCTGGCAAACAGCTCACGGGGCTCATGGACATGAAGATTT
TCTACAAGGGGAAGAACACTGGAAGCAATGCCTGTGTGCCAGGCCATGCAGCCTGCTGTGCCTGCCCAAGGCCA
ACAACAGTAGAAGCTGCAGGTGTCCAGAGGATGTGTCCAGCAGTGTGCTTCCATCAGGGGACCTGATGTGTGACT
GCCCTCAGGGCTATCAGCTCAAGAACAATACCTGTGTCAAAGAAGAGAACACCTGTCTTCGAACCAAGTATCGCT
GCAGCAACGGGAACGTATCAACAGCATTTGGTGGTGTGACTTTGACAACGACTGTGGAGACATGAGCGATGAGA
GAAACTGCCCTACCACCATCTGTGACCTGGACACCCAGTTTCGTTGCCAGGAGTCTGGGACTTGTATCCCACTGT

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FIGURE 827B

CCTATAAATGTGACCTTGAGGATGACTGTGGAGACAACAGTGATGAAAGTCATTGTGAAATGCACCAGTGCCGGA
GTGACGAGTACAACCTGCAGTTCCGGCATGTGCATCCGCTCCTCCTGGGTATGTGACGGGGACAACGACTGCAGGG
ACTGGTCTGATGAAGCCAACCTGTACCGCCATCTATCACACCTGTGAGGCCTCCAACCTCCAGTGCCGAAACGGGC
ACTGCATCCCCCAGCGGTGGGCGTGTGACGGGGATACGGACTGCCAGGATGGTTCGGATGAGGATCCAGTCAACT
GTGAGAAGAAGTGCAATGGATTCCGCTGCCCAAACGGCACTTGATCCCATCCAGCAAACATTGTGATGGTCTGC
GTGATTGCTCTGATGGCTCCGATGAACAGCACTGCGAGCCCCCTCTGTACGCACTTCATGGACTTTGTGTGTAAGA
ACCGCCAGCAGTGCCGTGTTCCACTCCATGGTCTGTGACGGAATCATCCAGTGCCGCGACGGGTCCGATGAGGATG
CGGCGTTTGCAGGATGCTCCCAAGATCCTGAGTTCCACAAGGTATGTGATGAGTTCGGTTTCCAGTGTCAGAATG
GAGTGTGCATCAGTTTGATTGGAAGTGCGACGGGATGGATGATTGCGGCGATTATTCTGATGAAGCCAACCTGCG
AAAACCCACAGAAGCCCCAACTGCTCCCGCTACTTCCAGTTTCGGTGTGAGAATGGCCACTGCATCCCCAACA
GATGGAAATGTGACAGGGAGAACGACTGTGGGGACTGGTCTGATGAGAAGGATTGTGGAGATTACATATTCTTC
CCTTCTCGACTCCTGGGCCCTCCACGTGTCTGCCCAATTACTACCGCTGCAGCAGTGGGACCTGCGTGATGGACA
CCTGGGTGTGCGACGGGTACCGAGATTGTGCAGATGGCTCTGACGAGGAAGCCTGCCCTTGCTTGCAAACGTCA
CTGCTGCCTCCACTCCCACCAACTTGGGCGATGTGACCGATTGAGTTCGAATGCCACCAACCGAAGACGTGTA
TTCCCAACTGGAAGCGCTGTGACGGCCACCAAGATTGCCAGGATGGCCGGGACGAGGCCAATTGCCCCACACACA
GCACCTTGACTTGATGAGCAGGGAGTTCCAGTGCGAGGACGGGGAGGCCTGCATTGTGCTCTCGGAGCGCTGCG
ACGGCTTCCTGGACTGCTCGGACGAGAGCGATGAAAAGGCCTGCAGTGATGAGTTGACTGTGTACAAAGTACAGA
ATCTTCAGTGGACAGCTGACTTCTCTGGGGATGTGACTTTGACCTGGATGAGGCCCAAAAAATGCCCTCTGCAT
CTTGTGTATATAATGTCTACTACAGGTGGTTGGAGAGAGCATATGGAAGACTCTGGAGACCCACAGCAATAAGA
CAAACACTGTATTAAAGTCTTGAAACCAGATACCACGTATCAGGTTAAAGTACAGTTTCAAGTGTCTCAGCAAGG
CACACAACACCAATGACTTTGTGACCCTGAGGACCCAGAGGGATTGCCAGATGCCCTCGAAATCTCCAGCTGT
CACTCCCCAGGGAAGCAGAAGGTGTGATTGTAGGCCACTGGGCTCCTCCCATCCACACCCATGGCCTCATCCGTG
AGTACATTGTAGAATACAGCAGGAGTGGTTCCAAGATGTGGGCCTCCCAGAGGGCTGCTAGTAACTTTACAGAAA
TCAAGAACTTATTGGTCAACACTCTATACACCGTCAGAGTGGCTGCGGTGACTAGTCGTGGAATAGGAACTGGA
GCGATTCTAAATCCATTACCACCATAAAAGGAAAAGTGATCCCACCACCAGATATCCACATTGACAGCTATGGTG
AAAATTATCTAAGCTTCACCCTGACCATGGAGAGTGATATCAAGGTGAATGGCTATGTGGTGAACCTTTTCTGGG
CATTTGACACCCACAAGCAAGAGAGGAGAACCTTTGAACCTCCGAGGAAGCATATTGTACACAAAGTTGGCAATC
TGACAGCTCATACTCTATGAGATTTCTGCCTGGGCCAAGACTGACTTGGGGGATAGCCCTCTGGCATTGAGC
ATGTTATGACCAGAGGGGTTTCGCCACCTGCACCTAGCCTCAAGGCCAAAGCCATCAACCAGACTGCAGTGGAA
GTACCTGGACCGGCCCCCGGAATGTGGTTTATGGTATTTCTATGCCACGTCCTTTCTTGACCTCTATCGCAACC
CGAAGAGCTTGACTACTTCACTCCACAACAAGACGGTCATTGTAGTAAGGATGAGCAGTATTTGTTTCTGGTCC
GTGTAGTGGTACCTACCAGGGGCCATCCTCTGACTACGTTGTAGTGAAGATGATCCCGGACAGCAGGCTTCAC
CCCGTCACCTGCATGTGGTTCATACGGGCAAAACCTCCGTGGTCATCAAGTGGGAATCACCGTATGACTCTCCTG
ACCAGGACTTGTGTATGCAATTGCAGTCAAAGATCTCATAAGAAAGACTGACAGGAGCTACAAAGTAAATCCC
GTAACAGCACTGTGGAATACACCCTTAACAAGTTGGAGCCTGGCGGGAAATACCACATCATTGTCCAACCTGGGGA
ACATGAGCAAAGATTCCAGCATAAAAAATTACCACAGTTTCATTATCAGCACCTGATGCCTTAAAAATCATAACAG
AAAAATGATCATGTTCTTCTGTTTTGGAAAAGCCTGGCTTTAAAGGAAAAGCATTTTAATGAAAGCAGGGGCTATG
AGATACACATGTTTGATAGTGCCATGAATATCACAGCTTACCTTGGGAATACTACTGACAATTTCTTTAAATTT
CCAACCTGAAGATGGGTCTAATACACGTTACCGTCCAAGCAAGATGCCTTTTGGCAACCAGATCTGTGGGG
AGCCTGCCATCCTGCTGTACGATGAGCTGGGGTCTGGTGCAGATGCATCTGCAACGCAGGCTGCCAGATCTACGG
ATGTTGCTGCTGTGGTGGTGCCCATCTTATTCTGATACTGCTGAGCCTGGGGGTGGGGTTTGCCATCCTGTACA
CGAAGCACCGGAGGCTGCAGAGCAGCTTACCGCCTTCGCCAACAGCCACTACAGCTCCAGGCTGGGGTCCGCAA
TCTTCTCCTCTGGGGATGACCTGGGGGAAGATGATGAAGATGCCCTATGATAACTGGATTTTTCAGATGACGTCC
CCATGGTGATAGCCTGAAAGAGCTTTTCTCACTAGAAACCAATGGTGTAAATATTTTATTTGATAAAGATAGTT
GATGGTTTATTTTAAAGATGCATTTGAGTTGCAATATGTTATTTTATATGGGCCAAAAACNNNNNNNNNNNN
NNNNNNNNNNNNNNNNNNNNNGAATGAATAAACTTTGTAGTAATCAACTGTGAACCTCAAACCAGGTTGATTTTA
GTAACCAATGCTTTGATTTGACATTAATGTAGTCTTACAGGCTGTGCTTGCTGGGCATGCTTTTACGTCTGT
GAGATAATTCGGTTCAGTAAATTGGCCAATCTTTTATTTTCTAAGACACAGAAATGTATTTAATAAAAACCT

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FIGURE 827C

CGAGAGAGTGATGGGTGGAACCCCTTCTCCTTGAAAGTGTGTACAGATATTCCATTTTGTGGATATAGTTTAT
AGGAAAGTGTGTGGATGTATTATGGCGGAAGGTTTCTTTATGTTATTTTGTAAATTTATTGGGACTCTGTGTAAG
GCCAGGCTTTAGTGGTCATTAGACACCACATGTGTTATGAGCCCTTACCCATAGGGTTGGGGGTGGGAAGAGAA
GCATATTTTTTGGCATTCCGGAAGCAATCCATTTTTATTCACTTGTGTGTATGTAATGGTCTTTGGCAGGAGA
GAGCACTGAGTCATTGCTGGAGTTCAGTTCAACAGAGCTGCAGCTTGGGAAGCCCTGTAAGCCACAGCTTCCTC
TCTTATATTAATTGATGGAATTTTACTGTATGTGCCTCTGTACAAGATGTAGCTTTGAGAGCTACAAAATGATAA
CACTGCTTTATTACACACTGGTTTCATTGTCAATGCAAAAACCTTACCCTGGTTGTGGGGGAGAGTTCTAGATCTG
TGCCATGATCCATACACTGGCTAATAGAGTACATAATTTTCCATTTTCCATTTTTTGTTTTTACTTACTACTGA
AGGATCTCAGATGTAAAATTATGTATTTGGTTTGAGATGGCCACTTATTGTCCTTAAAAATCCATACTGATATAT
GCAGTCATTTTGAATTGGACAGTGCCTTCTCTTTTTTTTTCTCCTCTTCTTCCATCTCCCTCACCCATGCCCCA
CCCAATCTAAAGAGACAGTGTGTACATTCTCATAGAGATAGAGAAGATCTAAAAAGTTGAGACTACTCAATCCA
GTTAAACAACAGCAGGAGCACTAGAGTTTGTTCATTTATTCTCTCTGTAAAACAAGCTGTGCTTTTTTTCTTCTGC
CTTTAAAAATGCCACCCGTGTATTCAAACCATGGCCACTTGATACTTATGTAGAATCCATCGTGGGCTGATGCAAG
CCCTTTATTTAGGCTTAGTGTTGTGGGCACCAATGTGCGAGCATCGTTGTGACTTGTGCTGTATGATTCTCACTGA
AGAATTTCTTTTCCAGCCAAGAAGCAGTGAGGTCTGGGAATATTCCAAAGTCATGTCTCTGAATATGTGTCTTGA
CGTGCAAGCTTTGTAAAACCCCATCCCCGCTTAGGTGCGAGGCATCACCTTCTCACAAGTGTTTAGTTTCTTTTA
ACCACAAGTATCATTCTTGGGTGATAATATAGTTTCACTTACTTAGGGATTGTTTAGAAAACAAAGAAAGAGCC
AATTAAATTTTTTAGTTTTTGAATTTTTATTTATATGTATACTTAGATGAGTATTTTAAAGCTGTGACCTTTAG
TTTGCCATACGGGTAGGACTGTATTTTCATGTTAAACAACCTGGTGGTAATGATAAGCCTTCTTCTAGCGTATTTTCT
CTTCTTCTGTCACTTTTCTAAGTTTTTTTTTTTTTAAAGACTGGAATTTTTTTTTGGCTTTATCTTGCTTACCGT
AGAGATTTGTTCAAACCTCTAAGCCCTACCACCTCCCCTTAAATAAGCTCTTTAAATAGTTGAATCATTAAACAAC
CTGGTGGGAGGCAAGTCATTTAATTGAACCACTAGGAAGTGATTTTTCTTTTCTTTTCTGCCAAGCTTTTGGTG
GCATTTGTAAAAGCTGATATAAAAGGCTCTGAGATGTTATTTTCAGTTATTCCATAGGCAAGCCTTTTACAGAG
CATATGTCTCCAGTTGGCAGCTTGAGATATTTCCGAGCATCCGGTCTAGCTACCAGTGCCTCCCAATGCTTAGT
GCACAGTACTGTAGACTGGCCATCACCCCTCTCCTTGAAAAATGCCACTGTGCTGTTTGAAAAAAGCAGCCTTT
TAGGGCTAGAGTATTTTATATAAACAGAAGAGCTAAGTTCTGAAGACTAAGCTAGATAGCTGCAGCTATATGTA
AATTGTATATTTTTATGAACTTTTGAAGCACACACTCCTGTTTCCCTCTGTGTAGCTTTGTGGGGATTTTCATGTA
TATATGCTGTCTGAAAGAATCCAGAGGTTGGAGTGCCAATAGAAAATGAAAACAAATGCCTTGTACTACAGGCAG
CCTCTGAAGGTGACCACATAACTGTCTTCACTGTGACCAATCGGAGTCCCTGCTTGCTTGTGAAGAAGGGCTTT
TGTACCTTGTGGAGATGCCACCTCAGAAGTTACACTGTGCGAGGAAAAAGGTTTTATTCTCTCCTGGCATAACAT
TAGAATGTCAGATGCCTGCATCCATGTGGACCACGATGGGCCTCTAAAAATTGGTGGGCAGGGGGTTTTGCTTATG
AGTTTCTCTGAAACCGATTTTACTCCTGGATGTATTGAATGCCCTTGAGCTTTATGAGATACGAGTCCACAT
GGATAAAATGTTAGAGAGTGGAGTTCTACAGAGGATTCCAGGAAGAGGCCATGTCTGTGCAGTCCAGTTCCAGA
CAGGTGAGAAGCTCCAGGAACCTACTGGCTACCTTGACAAGCTGGGTAAATAGTTATCATTCTGGGTAAGTGGTTG
AAACTCTGACTTTTGGACAAGTAATTCCTGGGGTCTGTCTTTGGTAGCATCACCAGGGATATTTGGGTGGGACA
GACAGAAGACACACAGCTGCCTGTTCTCTCCTGCCCATCATGTTTGGCCACTAGATGAAGCTGTACTCAGCAAT
TTAGGGAATGTAACCTTCTCAGAACCTGGCCATTTTCAAGGGGAAGCTTGGGAGAGCAATAGTATGGTGAGCCCT
TAGAGATGAGCGCCTACTCCTTCTTGGCGAATGCTGCCTTCAGATGCTTACCAAGTGGTCACTGCATCTAGTAAG
ATTATATTTCCAGTACACTTCTTAGGGCAGAAACACCATCCTATCAGGTTTGGTCAGTCCCTTCTTCATGAAGG
GAGTCATGGGGAATTCCTGAAAATTTTCTTCTCTGTCAGACAGTTGGATGAGTCCCTTAGAGAAGGCATCCAGA
GACATAACTAACTGAATATCATCCATATTGATTTTAGGAATTGACTCTAAACTCTGTGCAGAATCTTGTGTT
GGGATTGTATCTTGACATTCTGTTGTGTTATTTTTCTTAACTGGAGTGTGTGCTGCCTTTTCAAGGTACAATTTTT
GTGTAATAAAAGCCAGTGCAATTAAGTTTATATAGACTACTTTCTATGCAAGACTGAGATATGGAATAGATAGGAA
GAGATATGTAAGTGTGGGTACATGGACAGTAAGTGTGTTTTTCAGATGGAGTACCAGCACCGAAAATGGGTTGAGG
GAGGATGGGTTGTATGTATGTTTCTGCCCACTAATTTTGGAGCAGCCATATTATGAATTAATCGTCACAGCCAAG
TAATAACCCAAGAATGGTATGAGTTTCATGTGTAATAGCTCAAATGGAATAAGCATGAATGCTGGAGTGGACCAT
TATCCTCAAATATTCTATGTCACTTCTCATTTAAAGACTCTTGTATGAATATTAGAACTTTAGGCAAAATCA
AAAGTATTTGCGGCAAAATAAAGGCCTATTCTACTCTTATTTAAAGTGAACACTGTATACTTGTCTCTCCAA

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FIGURE 827D

AGCGAAATTAAGTATTTATAATTTCAATTGCCTCGATAAGTTTCCAAGTCACTGAAATCTGCTGAAGGTTTTACT
GTATTGTTGCACAACTTTAAGATAATTTTTGTCTCAATGTCAACTTTTTTCACTGAATAAAAAATTTAACTGGGTC
AAGAAAACACCTCTTTGAAAATCCACTGTCTCTGTGTGTCTCGAGCTGTTCTTTAGAGCGCAATAAAGATGGCTG
ACGCAGTCTCCAAACCCC

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FIGURE 828

AASTVFPLAWLSLILWGFSLGAGPRISQRWYFGDTCLHLTEPALLASRCTFSPGGGATCSSVRPNMATRSSRRES
RLPFLFTLVALLPAGALCEVWTQRLHGGSAFLPQDRGFLVVQGDPRELRLWARGDARGASRADEKPLRRKRSAAAL
QPEPIKVYGVVSLNDSHNQMVVHWAGEKSNVIVALARDSLALARPSSDVVSYDYGKSFKKISDKLNFGNGNRS
EAVIAQFYHSPADNKRYIFADAYAQYLWITFDFCNTLQGFSSIPFRAADLLHASKANLLLGFDNRSHPNKQLWKSD
DFGQTWIMIQEHVKSFSWGIDPYDKPNTIYIERHEPSGYSTVFRSTDFQSRNQEVILEEVDRDFQLRDKYMFAT
KVVHLLGSEQQSSVQLWVSFGRKPMRAAQFVTRHPINEYYIADASEDQVFVSVSHSNRNTNLYISEAEGKFSLS
LENVLYYSPGGAGSDTLVRYFANEFFADHRVEGLQGVYIATLINGSMNEENMRSVITFDKGGTWEFLQAPAFGTG
YGEKINCELSQGC SLHLAQRSLQLNLQLRRMPLSKESAPGLIIATGSGVGNLASKTNVYISSSAGARWREALP
GPHYTTWGDHGGIITAI AQGMETNELKYSTNEGETWKTFIFSEKPVFVYGLLTPGEEKSTVFTIFGSNKENVHSW
LILQVNATDALGVPCTENDYKLWSPSDERGNELGLHKT VFKRRTPHATCFNGEDFDRPVVSVNCSCTREDYECD
FGFKMSEDL SLEVCVPDPEFSGKSYSPVPCPVGSTYRRTRGYRKISGDTCSGGDVEARLEGEVLVPCPLAEENE
ILYAVRKSIIYRYDLASGATEQLPLTGLRAAVALDFDYEHNCLYWSDALDVIQRLCLNGSTGQEVINSGLTVE
ALAFEPLSQLLYWVDAGFKKIEVANPDGDFRLTIVNSSVLDRPRALVLPQEGVMFWTDWGD LKPGIYRSNMDS
AAYHLVSEDVKWPNGISVDDQWIYWTDAYLECIERTFSGQQRSVILDNLPHYAI AVFKNEIYWDWSQLSIFR
ASKYSGSQMEILANQLTGLMDMKIFYKGKNTGSNACVPRPCSLCLPKANNRSRSCPCPEDVSSSVLPSSGDLMDCC
PQGYQLKNNTCVKEENTCLRNQYRCSNGNCINSIWWCDFDND CGDMSDERNCPTTICDLDTQFRCQESGTCIPLS
YKCDLEDDCGDNDSESHCEMHQCRSDEYNCSSGMCIRSSWVCDGDND CRDWSDEANCTAIYHTCEASNFCQRNGH
CIPQRWACDGD TDCQDGSDEDPVNCEKKCNCFRCPNGTCIPSSKHCDGLRDCSDGSDEQHCEPLCTHFMDFVCKN
RQQCLFHSMVCDGIIQCRDGSDEDAAFAGCSQDPEFHKVCDEFQFQCNQVCISLIWKCDGMDDCGDYSDEANCE
NPTEAPNCSRYFQFRCENGHCIPNRWKCDREND CGDWSDEKDCGDSHILPFSTPGPSTCLPNYYRCSSGTCVMDT
WVCDGYRDCADGSDEEACPLLANVTAASTPTQLGRCDRFEFECHQPKTCIPNWKRCDGHQDCQDGRDEANCP THS
TLTMSREFQCEDEGEACIVLSERCDGFLDCSDESDEKACSDELTVYKVQNLQWTADFSGDVTLTWMRPKKMP SAS
CVYNVYYRVVGESIWKTLETHSNKTNTVLKVLKPD TTYQVKVQVQCLSKAHNTNDFVTLRTPEGLPDAPRNQLS
LPREAEGVIVGHWAPP IHTHGLIREYIVEYSRSGSKMWASQRAASNFT EIKNLLVNTLYTVRVA AVTSRGIGNWS
DSKSITTIKGVIPPPDIHIDSYGENYLSFTLTMESDIKVNQYVNVNLFWAFDTHKQERRTLNFRG SILSHKVGNL
TAHTSYEISAWAKTDLGDSPLAFEHVMTRGVRPPAPSLKAKAINQTAVECTWTGPRNVVYGIFYATSFLDLYRNP
KSLTTS LHNKTVIVSKDEQYLFLVRVVVPYQGPSSDYVVVKMIPDSRLPRLHVVHTGKTSVVIK WESP YDSPD
QDLLYAI AVKDLIRKTD RSYKVKSRNSTVEYTLNKLEPGGKYHIIVQLGNMSKDSSIKITTVSLSAPDALKIITE
NDHVLLFWKSLALKEKHFNESRGY EIHMFDSAMNITAYLGNTTDNFFKISNLKMGHNYTFTVQARCLFGNQICGE
PAILLYDELGSGADASATQAARSTDVA AVVVPILFLILLSLGVGFAILYTKHRRLOSSFTAFANSHYSSRLGSAI
FSSGDDLGEDDEDAPMITGFSDDVPMVIA

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FIGURE 829

AGGCGCTGCGGAGACGCGTAGAGGAGCGCGCCCCCGCCGCGTCCGCMCCCTGGCCCGTGCCGTCACCCCGCTTC
TCCGCGCCTCGGGCGGTACCCAGCCAGTCCCCAGCGCCGCGCTACCGCGCTGACCGGCCCTCCAGACGCCTCCCG
GTACCCGGGACCCAGCCCGCGCGCTCGCCCGAGCCCGCGGCCGACACGTCCCCGGAGCCGGGCTAGGGCG
GGCGGCAGGGCGGCTCGGCGCAGTCAGGCTGGGCTCTGTAGCGTCCCCATGGCCGCGGCCGGCTGGCGGGACGGC
TCCGGCCAGGAGAAGTACCGGCTCGTGGTGGTGGCGGGGGCGGCGTGGGCAAGTCGGCGCTCACCATCCAGTTC
ATCCAGTCCTATTTTGTAAACGGATTATGATCCAACCATTGAAGATTCTTACACAAAGCAGTGTGTGATAGATGAC
AGAGCAGCCCGGCTAGATATTTTGGATACAGCAGGACAAGAAGAGTTTGGAGCCATGAGAGAACAGTATATGAGG
ACTGGCGAAGGCTTCCTGTTGGTCTTTTCAGTCACAGATAGAGGCAGTTTGAAGAAATCTATAAGTTTCAAAGA
CAGATTCTCAGAGTAAAGGATCGTGATGAGTTCCCAATGATTTTAATTGGTAATAAAGCAGATCTGGATCATCAA
AGACAGGTAACACAGGAAGAAGGACAACAGTTAGCACGGCAGCTTAAGGTAACATACATGGAGGCATCAGCAAAG
ATTAGGATGAATGTAGATCAAGCTTTCCATGAACCTTGTCGGGTTATCAGGAAATTTCAAGAGCAGGAATGTCTCT
CCTTACCAGAACCAACACGGAAAGAAAAGACAAGAAAGGCTGCCATTGTGTCAATTTTCTAGAATCCCTTCAGT
TTTAGCTACCAACGGCCAGGAAAAGCCCTCATCTTCTCTTCTCTCTCCTCAGTTTACATCTTGTGGTACCTTTCT
AGCCTTAGACAAATGATCACCATGTTAGCCTTAGACGAAGAAGCTGGCTAGTCCTTTCTGTGAAGCTAATACAAT
GGTCATTTCCAGACAAATTTAAAGGAAACACTAAGGCTGCTTCAAAGATTATCTGATTCCTTTAAAATATATGTC
TATATACACAGACATGCTCTTTTTTTAAGTGCTTACATTTTAATAGAGATGAATCAGTTTTGGAATCTAAGCTGT
TTGCCAAGCTGAAGCTACAGGTTGTGAATAATTTTAACTTTTGAATCATACTGCCTACTGTTACTCTAAATA
GAAATATAGGGTTTTTTTTAATGTGAATTTTGCCTATCTTTAAACATTTCAATGTCAGCCTTTGTTAACCTTAA
ATACACTGAATTGAATCTACAAAAGTGAACCATCTCAGACCTTTACTGATACTACAACCTTTGTTTTCTGATGGC
CAAAATACCAATGCCTGTTGTATTTATGGATTAAAACTGCTTATAAAACCCTGTGTACTACTCCTACTCTTG
GAGATGATAATATTCTATGTGGTCAATATTTGGACTCATTTAGGACTTAGATATTTTCAGTGTACTTTGATTTTTT
AATTTAACTCTTTTTTACAGCCACGCTAAGGGTAAAAAGGAATAATTTCTCTCTGTCTTCTTTTCAAGTATTTT
TGGGTAAGGGATTCAAAAACTAAAAGTGTTTTTGTTTGTAAATATAAAATATGGAATTGATCTTTCCAGGGTCAG
AGATGATTAATGTTTTTGTATATACCTTTTATACATTATTTTCTTATCAAACCTAGTTAACAAGTATTTTTATATG
TTTGTAAGCAGATATGCTTTTATAGCATACCTTGTGTATATGTAAAGATAAGTATTTAATTCTCACTGTTCACTT
TTAACTGACAAAAGAAAACAAGTGGAACCTACAGAACTGTGGTAGAACTTTTACTTGTCTGGTCTGGTCTTGTT
GTACCCATCTTTGGCCAGTCACATAACTACTCAAGAAACCTTCCCAATAGAGTACAACAGGATGAGACTCTGAAA
TCACCTTTCAGTATTCCTGCTAGATATTGATTGTTATTTCAAGTATTAAGTGTAAGCTTTTAAATGGATAATTAGT
ATAACTGTGGATGGCATCTGATTTTTGTTTTTAATCTGTGGATTGTGTTTAAAGCAATTCAATAGTAIGTTCTGA
TTTTGAGATGCTAAGTGGTATTGCACAGTTGTCACTTTATCAAGTGTGTACAACAGTCCCATGAAGTTTATAGAG
CATACCCTTGTATAGCTTCAGGTGCTAGAATTAAAATTGATCTGTTATCACAAAAAAAAAAAAAAAAAAAAAAGG
CTCTTTAATTAGGCG

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FIGURE 830

CGCGCCTCGGGCGGTACCCAGCCAGTCCCCAGCGCCGCGCTACCGCGCTGACCGGCCCTCCAGACGCCTCCCGGT
ACCCGGGACCCCAGCCCGGCCGCTCGCCCGCAGCCCGCCGGCCGCACACGTCCCCGGAGCCGGGCCTAGGGCGGG
CGGCAGCGGCGGCTCGGCGCAGTCAGGCTGGGCTCTGTAGCGTCCCCATGGCCGCGGCCGGCTGGCGGGACGGCT
CCGGCCAGGAGAAGTACCGGCTCGTGGTGGTCGGCGGGGGCGGCGTGGGCAAGTCGGCGCTCACCATCCAGTTCA
TCCAGTCCTATTTTGTAACGGATTATGATCCAACCATTGAAGATTCTTACACAAAGCAGTGTGTGATAGATGACA
GAGCAGCCCGGCTAGATATTTTGGATACAGCAGGACAAGAAGAGTTTGGAGCCATGAGAGAACAGTATATGAGGA
CTGGCGAAGGCTTCCTGTTGGTCTTTTCAGTCACAGATAGAGGCAGTTTGAAGAAATCTATAAGTTTCAAAGAC
AGATTCTCAGAGTAAAGGATCGTGATGAGTTCCCAATGATTTTAATTGGTAATAAAGCAGATCTGGATCATCAA
GACAGGTAACACAGGAAGAAGGACAACAGTTAGCACGGCAGCTTAAGGTAACATACATGGAGGCATCAGCAAAGA
TTAGGATGAATGTAGATCAAGCTTTCATGAACCTTGTCGGGTATCAGGAAATTTCAAGAGCAGGAATGTCCTC
CTTCACCAGAACCAACACGGAAAGAAAAAGACAAGAAAGGCTGCCATTGTGTCATTTTCTAGAATCCCTTCAGTT
TTAGCTACCAACGGCCAGGAAAAGCCCTCATCTTCTCTTTCTCTCCTCAGTTTACATCTTGTTGGTACCTTTCTA
GCCTTAGACAAATGATCACCATGTTAGCCTTAGACCAAGAAGCTGGCTAGTCCTTTCTGTGAAGCTAATACAATG
GTCATTTCCAGACAAATTTAAAGGAAACACTAAGGCTGCTTCAAAGATTATCTGATTCCTTTAAATATATGTCT
ATATACACAGACATGCTCTTTTTTTAAGTGCTTACATTTTAATAGAGATGAATCAGTTTTGGAATCTAAGCTGTT
TGCCAAGCTGAAGCTACAGGTTGTGAAATAATTTTAACTTTTGAATCATACTGCCTACTGTTACTCTAAATAG
AAATATAGGGTTTTTTTTAATGTGAATTTTGCCTATCTTTAAACATTTCAATGTCAGCCTTTGTTAACCTTAA
TACACTGAATTGAATCTACAAAAGTGAACCATCTCAGACCTTTACTGATACTACAACTTTGTTTTCTGATGGCC
AAAATACCAATGCCTGTTGTATTTATGGATTAAAAACTGCTTATAAAAAAAAAAAAAA

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FIGURE 831

MAAAGWRDGSQGEKYRLVVVGGGGVGKSALTIQFIQSYFVTDYDPTIEDSYTKQCVIDDRAARLDILD
TAGQEEF
GAMREQYMRGTGEGFLLVFSVTDGRSFEEIYKFQRQILRVKDRDEFPMILIGNKADLDHQRQVTQEEGQQLARQLK
VTYMEASAKIRMNVDQAFHELVRVIRKFQEQECPPSPEPTRKEKDKKGCHCVIF

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FIGURE 832

TTAAGCACTTGTTTTGGGTACAAGGCATTTCTGACATTTTATAAACCTACATTTAAGGGGAATTTT**TAA**AGGAAA
TGTTTTTCTTTTTTTTTTIGTTTTTCGAGGGGGCAAGGAGGGACAGAAAAGTAACCTCTTCTTAAGTGGAATATT
CTAATAAGCTACCTTTTGTAAGTGCCATGTTTATTATCTAATCATTCCAAGTTTTGCATTGATGTCTGACTGCCA
CTCCTTCTTTCAAGGACAGTGTTTTTTGTAGTAAATCACTGGTTTATACAAAGCTTTATTTAGGGGGTAAAGT
TAAGCTGCTAAAACCCCATGTTGGCTGCTGCTGTTGAGATACTGTGCTTTGGGAGTAAAAAAGAAAGTTATTTT
TTTGTCTTAAAGAATTTTAAAAAATTAGTCATGAGACTTATTCATCTTTCCAGGGAACATACTGATTGGTCTTA
AAAGACTAGACAGTTAAGTAAAAGGTGGCTGGAACATCTATTTTCTACAAAACCTGGAAAAATGAACCTGGTTCT
AGAAGAATGTACACCAAATAAAACATGTGAAGCAGTATTGATTCTTT

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FIGURE 833

LSTCFGYKAFLTFYKPTFKGNF

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FIGURE 834

GCACGAGCATAGACTTTTAAACTGGTACGGTTCTTAGAGATGTCCTTGGCCTTCTGTTGTTGTTGTKGTTTTTT
TCTTTTCTTCTTCTCCTTCTCCTTCTTCTTCTTCTCCTTCTTCTTTTTTTTTTTCAGAGTCTTGCTCTG
TCACCAAGACTGGAGTGAAGTGATGTGATCTCGGCTTACTGCAACCTGGGAGGCAGAGGTTGCAGTGAGTCGAGA
TGGTGCCATTGCTCTCGTTTGGGCAACAAGAGTGAACTCTTGTCTCAAAAAAAAAAAAAAAAAATGAGGTTTAAGA
CAGTTTTGTCATTACTGGTGGGATCTGGTCACACAAGATAGCATTAAACGTGACATGGCACATAAAATTGGTTAA
AAAATTTGTTTTTTAATTACGTAATGTAAAAGCCCAACAAACACTTTATGCAAGATTGGAATGTATCTTCAAAT
TCAGATTTAATAAACATGTAAAGATCCTCTGTATATAAAAGTTGTATTTAATCCCTTGTGCCCCAAGAATGCTAT
AAAAGATCCCAAGAATGTTATCTATGAAAAGATAGCAATAGGGAATGGTGAACAAATAATTTAATTTGCCAATTC
TAAAAAACATGGACTTAAACCCCATGAAAACCTTGGTTCCATAGTTTTAACTGTTTTATGGTTCCAATACAAACC
AGAGTGGTTTACATTCCACAATXACCAATTTGCATCCAATXTTGGGGTAATTTTXGGTATTTGCCATGGGATAC
TATTCATTTTT

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FIGURE 835

MVLGLLLLLXFFSFSSSPSPSSLLLLSSFFFQSLALSPRLE

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FIGURE 836

TGTCGGGGACGGTAACCGGGACCCGTGCTCTGCTCCTGTCGCCTTCGCCTCCTGAATCCCTAGCCAT**ATG**CGTGA
 GTGCATCTCCATCCACGTTGGCCAGGCTGGTGTCCAGATTGGCAATGCCTGCTGGGAGCTCTACTGCCTGGAACA
 CGGCATCCAGCCCGATGGCCAGATGCCAAGTGACAAGACCATTGGGGGAGGAGATGACTCCTTCAACACCTTCTT
 CAGTGAGACGGGCGCTGGCAAGCACGTGCCCCGGGCTGTGTTTGTAGACTTGGAACCCACAGTCATTGATGAAGT
 TCGCACTGGCACCTACCGCCAGCTCTTCCACCCTGAGCAGCTCATCACAGGCAAGGAAGATGCTGCCAATAACTA
 TGCCCGAGGGCACTACACCATTGGCAAGGAGATCATTGACCTTGTGTTGGACCGAATTCGCAAGCTGGCTGACCA
 GTGCACCCGCTCTTCAGGGCTTCTTGGTTTTCCACAGCTTTGGTGGGGGAAGTGGTTCTGGGTTACCTCCCTGCT
 CATGGAACGCCTGTCAGTTGATTATGGCAAGAAATCCAAGCTGGAGTTCTCCATTTACCCGGCACCCCAGGTTTC
 CACAGCTGTAGTTGAGCCCTACAACCTCCATCCTCACCACCCACACCACCCTGGAGCACTCTGATTGTGCCTTCAT
 GGTAGACAATGAGGCCATCTATGACATCTGTCTGTAGAAACCTCGATATCGAGCGCCCAACCTACACTAACCTTAA
 CCGCCTTATTAGCCAGATTGTGTCTCCATCACTGCTTCCCTGAGATTGTGATGGAGCCCTGAATGTTGACCTGAC
 AGAATTCCAGACCAACCTGGTCCCCTACCCCGCATCCACTTCCCTCTGGCCACATATGCCCCTGTCTCTCTGC
 TGAGAAAAGCCTACCATGAACAGCTTTCTGTAGCAGACATCACCAATGCTTGCTTTGAGCCAGCCAACCAGATGGT
 GAAATGTGACCCCTGGCCATGGTAAATACATGGCTTGCTGCCTGTTGTACCGTGGTGACGTGGTTCCCAAAGATGT
 CAATGCTGCCATTGCCACCATCAAAACCAAGCGCACGATCCAGTTTGTGGATTGGTGCCCCACTGGCTTCAAGGT
 TGGCATCAACTACCAGCCTCCCACTGTGGTGCCTGGTGGAGACCTGGCCAAGGTACAGAGAGCTGTGTGCATGCT
 GAGCAACACCACAGCCATTGCTGAGGCCTGGGCTCGCCTGGACCACAAGTTTGACCTGATGTATGCCAAGCGTGC
 CTTTGTTCACCTGGTACGTGGGTGAGGGGATGGAGGAAGGCGAGTTTTCAGAGGCCCGTGAAGATATGGCTGCCCT
 TGAGAAGGATTATGAGGAGGTTGGTGTGGATTCTGTTGAAGGAGAGGGTGAGGAAGAAGGAGAGGAATACT**TAAT**
 ATCCATTCCTTTTGGCCCTGCAGCATGTCATGCTCCCAGAATTCAGCTTCAGCTTAACTGACAGATGTTAAAGC
 TTTCTGGTTAGATTGTTTTCACTTGGTGATCATGTCTTTTCCATGTGTACCTGTAATATTTTTCCATCATATCTC
 AAAGTAAAGTCATTAACATCA

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FIGURE 837

MRECISIHVGQAGVQIGNACWELYCLEHGIQPDGQMPSDKTIGGGDDSFNTFFSETGAGKHVPRAVFVDLEPTVI
DEVRTGTYRQLFHPEQLITGKEDAANNYARGHYTIGKEIIDLVLDRIKRLADQCTRLQGFLVFHSFGGGTGSFT
SLLMERLSVDYGKKSLEFSIYPAPQVSTAVVEPYNSILTTHTTLEHSDCAFMVDNEAIYDICRRNLDIERPTYT
NLNRLISQIVSSITASLRFDGALNVDLTEFQTNLVPYPRIHFPLATYAPVISAEKAYHEQLSVADITNACFEPAN
QMVKCDPGHGKYMACECLLYRGDVVPKDVNAAIATIKTKRTIQFVDWCPTGFKVGINYQPPTVVPGGDLAKVQRAV
CMLSNTTAIAEAWARLDHKFDLMYAKRAFVHWYVGEGMEEGEFSEAREDMAALEKDYEYEVGVDSVEGEHEEEGEE
Y

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FIGURE 838

GGGCTTCCTGGGGAGGGTGTGGCAGGGTGGTGGGCATCCCCTCCCTCACCAAAGCATGGGCTCTTTGTTTCCTCT
 TTGCCAGGCCTGGGTCCTTCCCAGTGACCCCTCAGCCTTCACTTCCTCCTCACTCCCGGGGAGCTGTGACAGGTG
 TTTGGGGGAGGGGAGGGGGGTATGATAAGCTGGGACAGCTGCACCCACCGGTGCTCTGGTGAGATGGGGGGCCCG
 GATGTTGGGGAGACACATCTGCTGGGTTCCCAGCCCAAGGTCCCCAACCCCTGGCTGTCTGGCCTTGCTGTCAAC
 CCCCCGTGCCCCTGGCAGGGACAGGAAGCTCCCCCCCCACCCCGCTTTGGGCAGTTTGCCTTGGCACGGGCCTGA
 TCTGTTTTCTCCCCAGAGCAGCTGCTGTTCTGTCTGCTGGGCAGAGGGCTGGGTTCCCTCCGAGGTAGGCAGGGG
 CCTCAACCCAGAGCCCCTCTCACACCCTCTTTCAACTCAGGCTTATGTCTCTCCCTCCTCCCCACCCCCACCCC
 AGGAAGAGGAGATCCCAGAACTGGAGATTGACGTGGATGAGCTCCTGGACATGGAGAGTGACGATGCCCGGGCTG
 CCAGGGTCAAGGAGCTGCTGGTTGACTGTTACAAACCCACAGAGGCCTTCATTTCTGGCCTGCTGGACAAGATCC
 GGGGCATGCAGAAGCTGAGCACACCCCAGAAGAAGTGAGGGTCCCCGACCCAGGAGAACGGTGGCTCCACAGGA
 CAATCGCTGCCCCCAACCTCGTAGCAACAGCAATACCGGGGGACCCTGCGGCCAGGCCTGGTGCCATGAGCAGG
 GCTCCTCGTGCCCCCTGGCCCAGGGGTCTCTTCCCCTGCCCCCTCAGTTTTCCACTTTTGGGGTTTTTTATTGTTA
 TTAAACTGATGGGACTTTAAAAAAAAAAAAAAAAAAAAA

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FIGURE 839

MLGRHICWVSPRSPTLAVWPCLSPVPTGRDRKLPPHPALGSLPWHGPDFSSPEQLLFCLLGRGLGSSEVGRG
LNPEPLSHPLSTQAYVSPSSPTPTPGRGDPRTGD

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FIGURE 840A

AAGTCAGCGCTGGAGTCGGCTAGGCGGCTGGAAACGGCGGCTGCCGCCGTGACTCAGGGAGGCGGGAGGCGGGG
GAGGAGCTCTTCCTGCAGGCGTGAAACC**ATGG**TGCTCACGCTCGGAGAAAGTTGGCCGTTATTGGTGGGAGGA
GGTTTCTCAGTCTGTCCGACGCCACGGCAGCGATGGCAGCCACGACAGCTGGGACGTGGAGCGCTGCCGAGT
GGCCCTGGCTCTCCGGGACCATTCGAGCTGTTTCCACACCGACGTTACCAAGAAGGATCTGAAGGTGTGTGTGG
AATTTGATGGGGAATCTTGAGGAAAAGAAGATGGATAGAAGTCTACAGCCTTCTAAGGAGAGCATTTTTAGTAG
AACATAATTTGGTTTTAGCTGAACGAAAGTCACCTGAAATTTCTGAACGAATTGTACAGTGGCCTGCAATAACGT
ACAAACCTCTGTTGGACAAAGCTGGTTTGGGATCCATAACTTCTGTTGCTTTCTGGGAGATCAACAAAGAGTAT
TTCTTTCTAAAGACCTTTTGAAGCCTATACAGGATGTAAACAGTCTTCGACTTTCTCTTACGGATAATCAGATTG
TCAGTAAAGAATTTCAAGCTTTGATTGTGAAGCATTTAGATGAAAGCCATCTTTTAAAAGGTGACAAAACTTAG
TTGGTTCAGAAGTAAAAATTTATAGCTTGGACCCATCTACTCAGTGGTTTTTCAGCAACCGTTATAAATGGAACC
CAGCATCAAAAACTCTTCAAGTCAACTGTGAGGAGATTCCAGCACTGAAAATTGTTGATCCGTCCTGATTTCATG
TTGAAGTTGTACACGATAACCTTGTGACATGTGGTAATTCTGCAAGAATTGGAGCTGTAAAACGCAAGTCTTCTG
AGAATAATGGAACCTTGGTTTTCCAAACAAGCAAAATCTTGCTCTGAGGCCTCTCCCAGTATGTGTCTGTGCAGT
CTGTACCTACAACAGTTTTTAAAGGAGATACTGCTTGGCTGTACTGCGGCAACTCCACCTAGTAAGGACCCAAGAC
AGCAAAGTACTCCCAGGCTGCCAACTCTCCACCTAACCTTGGAGCAAAAATTCCTCAAGGATGTCATAAAACAAA
GTTTACCAGAGGAAATTTCTTCTGTCTAAATACAAAGTCTGAAGCTCTGAGAACAAAACCAGATGTCTGCAAAAG
CAGGGTTGCTCTCAAAGTCCTCTCAGATTGGAACCTGGAGACTTGAAAATTTCTGACTGAGCCAAAAGGCAGCTGTA
CTCAGCCTAAGACAAACACTGATCAGGAAAACAGATTGGAGTCTGTTCCACAAGCATTGACTGGCCTTCCTAAGG
AGTGCTTACCTACAAAGGCTTCTTCTAAGGCAGAATTGGAATTGCCAATCCTCCTGAAGTGCAGAAGCACCTAG
AACATGCACCTTCCCATCGGATGTTTCAAATGCACCAGAAGTGAAAGCAGGTGTCAATAGTGATAGCCCTAATA
ACTGTTCAAGAAAAAGGTAGAACCTTCAGCTTTAGCTTGGCGATCACAGAATTTAAAGGAATCTTCAGTAAAG
TAGATAATGAAAGCTGTTGTTCAAGAAGCAACAATAAAATCCAGAATGCCCCATCCAGGAAGTCGGTTTTGACAG
ACCCAGCTAAACTCAAAAAGCTGCAACAGAGTGGCGAGGCTTCGTACAGGATGATTCTTGTGTGAACATCGTGG
CACAGTTGCCATAATGCCGAGAGTGTGCTTGGACAGTCTCCGCAAGGATAAGGAGCAACAGAAGGACTCACCTG
TGTTTTGCCGCTTCTTTCACTTCAGGAGGTTACAATTCAACAAACATGGTGTGTTGCGGGTAGAAGGCTTCTTAA
CACCAAAACAAGTATGACAATGAAGCAATTGGCTTGTGGTTACCTTTAACCAAAAACGTTGTGGGGATTGATTGG
ACACAGCAAAAGTACATCTTGGCCAACATTGGAGACCCTTCTGTCAAATGGTGATTTCTGAAAAGGAAGCTATGT
CAACTATTGAGCCACACAGACAGGTTGCTTGGAAAGCGAGCTGTCAAAGGTGTTGAGAAATGTGTGATGTGTGCG
ACACCACCATCTTCAACCTGCACTGGGTGTGTCTCGGTGTGGGTTTGGAGTATGTGTGGACTGCTACCGGATGA
AGAGAAAAGATTGCCAACAGGGTGCTGCTTACAAGACTTTCTCTTGGCTAAAATGTGTGAAGAGTCAGATACATG
AACCAGAGAACTTAATGCCCACACAGATCATTCTGGAAAAAGCACTCTATGATGTTGGAGACATTGTTCAATTCTG
TAAGAGCGAAATGGGGAATAAAGGCAAACTGCCCTTGTTCAAAACAGGCAATTCAAACCTTTTTCAAAGCCAGCCT
CAAAGGAAGACCTAAAACAGACTTCTTTAGCTGGAGAAAAACCGACTCTTGGTGCAGTGCTCCAGCAGAATCCCT
CAGTGTTGGAGCCAGCAGCTGTGGGTGGGGAAGCAGCCTCCAAGCCAGCCGGCAGCATGAAGCCTGCCTGTCCAG
CCAGCACATCTCTTAACTGGCTGGCCGACCTAACCCAGCGGAATGTCAACAAGGAAAACAAGGAAAAACAAC
CAACAATGCCAATTTTAAAGAATGAAATCAAATGCCTTCCACCCCTCCACCTTTAAGCAAATCCAGCACAGTCC
TCCATACGTTTAAACAGCACAAATTTTGACACCCGTAAGCAACAACAATTCTGGTTTCTCCGGAATCTCTTGAATT
CTTCTACAGGAAAAGACAGAAAATGGACTCAAGAATACACCAAAAATCCTTGATGACATCTTTGCCTCTTTGGTGC
AAAATAAGACGACTTCTGATTTATCTAAGAGGCCTCAAGGACTAACCATCAAGCCCAGCATTTCTGGGCTTTGACA
CTCCTCACTATTGGCTTTGTGATAATCGCTTGTGTGCTTGCAAGACCCCAACAATAAGAGCAACTGGAATGTGT
TTAGGGAGTGCTGGAAACAAGGCGAGCAGTGTGGTGTCTGGAGTGCATCATAAATTGAACTCTGAACTTTGGA
AACCTGAATCCTTCAGGAAAGAGTTTGGTGAGCAGGAAGTAGACCTAGTTAATTGTAGGACCAATGAAATCATCA
CAGGAGCCACAGTAGGAGACTTCTGGGATGGATTTGAAGATGTTCCAAATCGTTTGA AAAATGAAAAAGAACCA
TGGTGTGAAACTTAAGGACTGGCCACCAGGAGAAGATTTTAGAGATATGATGCCTTCCAGGTTTGATGATCTGA
TGGCCAACATTCCACTGCCCAGTACACAAGGCGAGATGGCAAACTGAATTTGGCCTCTAGGCTGCCAACTACT
TTGTTCCGCCAGATCTGGGCCCCAAGATGTATAATGCTTATGGATTAATCACTCCTGAAGATCGGAAATATGGAA
CAACAAATCTTCACTTAGATGTATCTGATGCAGCTAATGTGATGGTCTATGTGGGAATTCCCAAAGGACAGTGTG
AGCAAGAAGAAGAAGTCCTTAAGACCATCCAAGATGGAGATTCTGACGAACTCACAATAAAGCGATTTATTGAAG

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FIGURE 840B

GAAAAGAGAAGCCAGGAGCACTGTGGCACATATATGCTGCAAAGGACACGGAGAAGATAAGGGAATTTCTTAAAA
 AGGTATCAGAAGAGCAAGGTCAAGAAAACCCAGCAGACCACGATCCTATTCATGATCAAAGCTGGTATTTAGACC
 GATCATTAAAGAAAACGTCTTCATCAAGAGTATGGAGTTCAAGGCTGGGCTATTGTACAGTTTCTTGGGGATGTGG
 TGTTTATCCCGGCAGGAGCTCCACATCAGGTTTCATAACTTATATAGCTGCATCAAAGTGGCTGAAGATTTTGTTT
 CTCCAGAGCATGTTAAACACTGCTTCTGGCTTACTCAGGAATTCGATATCTGTACAGACTCATACCAATCACG
 AAGATAAATTACAGGTGAAGAATGTTATCTACCATGCAGTGAAAGATGCAGTTGCTATGCTGAAAGCCAGTGAAT
 CCAGTTTTGGCAAACCT**TAA**TCTCCCTGCACATTGGAAATGAATTACAGGCAGCTGTTCAAACCTCTTCAGGCAGG
 ATTCCTGTGGACTTTGAGATTCATGTTACCTCATCTTCTTTTTTAAACTGTACCCAACCTGTGAGGGTACTCTGT
 CTAATGTATATTTCTAGTGTTTACAGACAGTAAATGTGTATATGTAGTAACTATTTACAGAACATGCATCCTTAA
 ACTGTGACTTCTCACCTAGTGCAGAACTTTTACCAGGCTGTAAAAGCAAACCTCGTATCAGCTCTGGAACAATA
 CCTGCAGTTATTCTTCAGCTGTTTGGACAACCTAGATTGGGTTTATAACTATTAGGAATCACTGCACAGTTTATT
 TGGGTTGTGTTTTGTGTCTGAGTCCCTCCCTCATCCCTTAGGGTCCAGAAGAGCAATGGAGGAAGTGACAGCTA
 ATGTTGCAGTTCTTATTGTATGGCATAGGACTGGCATTATATAGCAGAAATCACTACTGTACAATTTCTTGGGG
 TTAACCATCTTTAGTTAAATGGAATTTTAATTTAAATGACGCTTTGCTAATTTTAAGTGTTAAGCATTTTGCATT
 AAAATATTCATATAAT

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FIGURE 841

MVLTIGESWPVLVGRFLSLSAADGSDGSHDSWDVERVAEWPWLSGTIRAVSHTDVTKKDLKVCVEFDGESWRKR
RWIEVYSLRRRAFLVEHNLVLAERKSPEISERIVQWPAITYKPLLDKAGLSITSVRFLGDQQRVFLSKDLLKPI
QDVNSLRSLTDNQIVSKEFQALIVKHLDESHLLKGDKNLVGSEVKIYSLDPSTQWFSATVINGNPASKTLQVNC
EEIPALKIVDPSLIHVEVVHDNLVTCGNSARIGAVKRKSSENNGLTVSKQAKSCSEASPSMCPVQSVPTTVFKEI
LLGCTAATPPSKDPRQQSTPQAANSPPNLGAKIPQGCHKQSLPEEISSCLNTKSEALRTKPDVCKAGLLSKSSQI
GTGDLKILTEPKGSCSTQPKTNTDQENRLESVPQALTGLPKECLPTKASSKAELEIANPPELQKHLEHAPSPSDVS
NAPEVKAGVNSDSPNNCSGKKVEPSALACRSQNLKESSVKVDNESCCSRSNKIQNAPSRKSVLTDPAKLKKLQQ
SGEAFVQDDSCVNIVAQLPKCRECRLDSLKDKKEQQKDSPVFCRFFHFRRLLQFNKHGVLVEGFLTPNKYDNEAI
GLWLPLTKNVVGIDLD TAKYILANIGDHFCQMVISEKEAMSTIEPHRQVAWKRAVKGVREMCDVCDTTIFNLHWV
CPRCGFGVCVDCYMRKRNCCQGAAYKTF SWLKCVKSQIHEPENLMPTQIIPGKALYDVGDIVHSVRKWKIGAN
CPCSNRQFKLFSKPASKEDLKQTS LAGEKPTLGAVLQQNP SVLEPAAVGGEAASKPAGSMKPACPASTSPLNWL
DLTSGNVNKENKEKQPTMPILKNEIKCLPPLPPLSKSSSTVLHTFNSTILTPVSNNNSGFLRNLLNSSTGKTENGL
KNTPKILDDIFASLVQNKTTSDLSKRPQGLTIKPSILGFDTPHYWLCNRLCLQDPNNKSNWNVVFRECWKQGP
VMVSGVHHKLNSSELWKPESEFRKEFGEQEVLDVNCRTNEIITGATVGDFWDGFEDVPNRLKNEKEPMVLKLDWPP
GEDFRDMMPSRFDDL MANIPLPEYTRRDGKLN LASRLPNYFVRPDLGPKMYNAYGLITPEDRKYGTTNLHLDVSD
AANVMVYVGIPKGQCEQEEVLKTIQDGDSELTIKRFIEGKEKPGALWHIYAAKDTEKIREFLKKVSEEQGOEN
PADHDP IHDQSWYLDRLRKLHQEYGVQGWAI VQFLGDVVFIPAGAPHQVHNLYSICKVAEDFVSPHEVVKHCFW
LTQEFYLSQTHTNHEDKLQVKNVIYHAVKDAVAMLKASESSFGKP

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FIGURE 842

CTAACCCAGTATGTTCTTCTTTTTTATGTAAGGNACAGCTTTCTCCACAGAGTCCTTTCTGCTGGTGAGGACAGC
ATTTCTGAGCAGGGCTTTGTTCTCTATGTGCATTAGGACTTTTATCATGCCCTTGTTCTGTGTGTAGTTACTTGA
CAGCATCAAATGCCGCCTCTTCCTAATGTCCTTCAAGTTTTTCATGAACTAGCAACCCACCTTCCACCATGGTTC
TGGGCGCCTGATTTTGCTGTGACTC

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FIGURE 843

GAAGGGGGCTGGGCCGGAGCCCCAGGCTCAGAGGAGGAGGAGGAGGAGCAGGAGGAGAGCCTGGCGGTGGCGGA
GCAGGGAAAGGGGCGCAGGGAGTCTGAAAGCTCCAGGAGCAGCAGAAGGCCAGTGGCCGGTCTCCAACCAGTAC
TGAGAAGCGCATGAGCTTCGAGTCCATTTCTTCCCTGCCAGAGGTTGAGCCGGACCCTGAGGCTGGGAGTGAGCA
AGAGGTATTTCTGCTGTGGAAGGGCCAGTGCCGAGGAGACGCCTTCAGACACAGAATCTCCAGAAGTCCTGGA
GACACAGCTTGATGCCCACCAGGGCCTTCTGGGGATGGACCCCCCAGGTGACATGGTGGACTTCGTGGCAGCTGA
GAGCACTGAGGACCTTAAGGCCCTGAGCAGCGAGGAGGAAGAAGAAAATGGGAGGTGCCGCCAGGAGCCTGAGAG
CCTTCTGCCACCCTCTGTGCTGGACCAGGCCAGCGTCATTGCGGAGCGATTGTCTCAGCAGCTTCTCTCGGCGGAG
CAGCGTGGCACAGGAGGACAGCAAGTCCAGTGGCTTTGGGAGCCCCGCGGTGGTCAGCCGGAGCAGCAGCGTGCT
CAGCCTGGAGGGCAGCGAGAAGGGCCTGGCCCCGGCATGGCAGTGCCACAGACTCCCTCAGCTGTCTCAGCTCTCCCC
AGAAGTGGACATCAGTGTGGGGGTGGCCACAGAGGACAGCCCTTCTGTCAATGGGATGGAGCCCCCAAGCCCAGG
CTGCCCAGTGGAGCCTGACCGGTCTTCTGCAAGAAGAAGGAATCAGCACTCTCCACCCGAGACCGGTGTTGCT
AGACAAGATTAAGAGCTGGTGGCCCCACTGCACCCCCGCATCGTGCAGCTCTCCACGTAATGGACAGCCACGTG
AGCGAGCGCGTCAAGAACAAGGTCTACCAGCTGGCCCCGCCAGTACAGCCTCCGGATCAAGAGCAACAAGCCAGTG
ATGGCCAGGCCACCCTGCAGTGGGAAAAGGTGGCCCCCTGAGAGGGATGGGAAGAGCCCCACTGTGCCCTGTCTA
CAGGAAGAGGCTGGAGAGCCATTAGGTGGCAAAGGTAAGAGGAAGCCGGTGCTGTCTCTATTTGACTATGAGCAG
CTGATGGCCCAGGAGCACAGCCCTCCCAAGCCCTCCTCGGTGGGGAGATGTCACCACAGCGTTTCTTCTTCAAC
CCGTCTGCTGTCTAGCCAGAGGACCACCTCGCCTGGGGGCCGGCCCTCCGCCCGGAGCCCCCTCAGCCCCACAGAG
ACCTTCAGCTGGCCCCGACGTCCGTGAGCTCTGCTCCAAGTATGCCTCCCGCGATGAGGCACGCCGAGCAGGGGGC
GGCCGGCCCCCGCGGCCACCCGTCAACAGGAGCCACTCGGTGCCGAGAACATGGTAGAGCCACCTCTGTCTGGGC
AGGGTGGGCCGCTGCCGAGCCTGAGCACCAAGAGGGGCCGGGGAGGCGGAGAGGCTGCCAATCCCTGGGCCT
CTGCCCCAGAGCAAGCCGGATGGAGGCGAGACCCTGTATGTCACTGCAGACCTCACCTGGAGGACAACCGGCGG
GTGATTGTCTATGGAGAAGGGACCCCTTCCAGCCCCACTGCAGGGCTGGAGGAGAGCAGTGGCCAGGGACCAAGC
TCACCGGTGGCCCTGCTGGGGCAGGTTTCCAGACTTCCAGCAGTCTGCAGAGTGCCAGCCGAAGGAAGAGGGTTCC
AGGGACCCGGCAGACCCGAGCCAGCAGGGCAGAGTGAGAAACCTTAGAGAGAAGTTCCAGGCCTTGAACCTCTGTC
GGTTGATGCTGACTCCTGGGGGAGGGAGGAGTCATGTTGGAGGTTGGGGAAGAACCTGGGCATCCTTCCCCTCAA
GCCTGGGCTCATGGAGCCCCTGCCCAGGGCCCTCAGGTGGGCGGAAAGTCCATCCCCTCCGCCCTTCAGGAAGGA
TGCTCCCGTGTGCAGGGGTCTCCTGCCTGTGCCATCCACTGGGGCTCGAGACAATTTCCCACTCACCTGTGAGGC
CGGTGTGGCTGCTTCCCTTGTAATAGTTGTTCTCTGGTAAGAAGCCAAATATTTAAGCTCACTTCTTCCCAGAG
AGAGGAAGCTCTGCTCAGGCCTCCAGCGTTGGCTGGCCATGGCCACAGCCAGATGGAGGAGCCCATCCCCAGGAG
ACTCAGGCAGTGGCCTGGAGAGGCTTTGTTCTGTAAACGGTGCCTTTTCTTAGGGTCCAGGCAGGAATGAAGCCAA
TAATTTATTGCTTTCCATTCTGTGGTATGATGTGCGTGTGCGTGAGTGTGTGGCCCCTGTTTATTCCCCTCCTGT
CAAGAATGAAGTGGATTTCAGTTTCAAGTACTTTTGAGGGTTGTTGTGCTGACCCTGTGGTTGTGCTGATGTACAC
ACATTTTATTATTTGCCAATGGTGAATAACCACTGCTGACCAACAAAAAAAAAAAAAAAAAAAAA

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FIGURE 844

AATCCAACTCACCTCC**ATG**TTCAAGGATGTCCCTCTGACTGCAGAAGAGGTGGAATTTGTGGTGAAAAAGCATT
GAGCATGTTCTCCAAGATGAATCTTCAAGAAATACCACCTTTGGTCTATCAGCTTCTGGTTCTCTCCTCCAAGGG
AAGCAGAAAGAGTGTTTTGGAAGGAATCATAGCCTTCTTCAGTGCCTAGATAAGCAGCACAATGAGGAACAGAG
TGGTGACGAGCTATTGGATGTTGTCAGTGTGCCATCAGGTGAACTTCGTCTATGTGGAAGGCACCATTATTCTACA
CATTGTGTTTGCCATCAAATTGGACTATGAACTAGGCAGAGAAGCTCGTGAAACACTTAAAGGTAGGACAGCAAGG
AGATTCCAATAATAACTTAAGTCCCTTCAGCATTGCTCTTCTTCTGTCTGTAACAAGAATACAAAGATTTTCAGGA
CCAGGTGCTTGATCTTTTAAAGACTTCGGTTGTAAAGAGCTTTAAGGATCTTCAACTCCTCCAAGGCTCAAAATT
TCTTCAGAATCTAGTTCCTCATAGATCTTATGTTTCAACCATGATCTTGGAAGTAGTGAAGAATAGCGTTCATAG
CTGGGACCATGTTACTCAGGGCCTCGTAGAACTTGGTTTCAATTTTGATGGATTTCATATGGGCCAAAGAAGGTTCT
TGATGGAAAACTATTGAAACCAGCCCAAGTCTTTCTAGAATGCCAAACCAGCATGCATGTAAGCTCGGAGCTAA
TATCCTGTTGGAACTTTTAAAGATCCATGAGATGATCAGACAAGAAATTTTGGAGCAGGTCTCAACAGGGTTGT
TACCAGAGCATCTTCTCCCATCAGTCATTTCTTAGACCTGCTTTCAAATATCGTCATGTATGCACCCTTAGTTCT
TCAAAGTTGTTCTTCTAAAGTCACAGAAGCTTTTGACTATTTGTCCTTTCTGCCCCCTTCAGACTGTACAAAGGCT
GCTTAAGGCAGTGACGCCCTTCTCAAAGTCAGCATGTCAATGAGAGACTGCTTGATACTTGTCTTTCGGAAAGC
TATGTTTGCCAACCAGCTTGATGCCCCGAAATCTGCAGTTGCTGGGTTTTTGCTGCTCCTGAAGAACTTTAAAGT
TTTAGGCAGCCTGTCATCCTCTCAGTGCAGTCAGTCTCTCAGTGTGAGTTCAGTTCATGTGGATGTTTCACAGCCA
TTACAATTCTGTCGCCAATGAACTTTTTGCCTTGAGATCATGGATAGTTTGAGGAGATGCTTAAGCCAGCAAGC
TGATGTTGACTCAGCTTTATGAGGGTTTTATGATGTTCTTCGAAGGAAGTCTCAGCTGGCTAATTCAGTCAT
GCAAACCTGCTCTCACAGTTAAACAGTTCTATGAGCCAAACCTGATCTGCTGCCTCCTCTGAAATTAGAAGC
TTGTATTCTGACCCAAGGAGATAAGATCTCTCTACAAGAACCAGTGGATTATCTGCTGTGTTGTATTACAGCATTG
TTTGGCCTGGTATAAGAATACAGTCATACCCTTACAGCAGGGAGAGGAGGAAGAGGAGGAGGAAGAGGCATTCTA
CGAAGACCTAGATGATATATTGGAGTCCATTACTAATAGAATGATTAAGAGTGAGCTGGAAGACTTTGAACTGGA
TAAATCAGCAGATTTTTCTCAGAGCACCAGTATTGGCATAAAAAATAATATCTCTGCTTTTCTTGTGATGGGAGT
TTGTGAGGTTTTAATAGAATACAATTTCTCCATAAGTAGTTTCAGTAAGAATAGGTTTGAGGACATTCTGAGCTT
ATTTATGTTGTTACAAAAACTCTCTGACATTCTTAATGAAAAAGCGGGTAAAGCCAAACTAAAATGGCCAACAA
GACAAGTGATAGTCTTTTGTCCATGAAATTTGTGTCCAGTCTTCTCACTGCTCTTTTCAGAGTCTTGCTATGGAG
ATACACTTCAATTCCTACTTCAGTGGAAGAGTGGGAAAGAAAGAGAAAGGAAAGAGCATCTCACTGCTGTGCTT
GGAGGGTTTACAGAAAATATTAGTGCTGTGCAACAGTTCTATCAGCCCAAGATTACAGCAGTTTCTCAGAGCTCT
GGATGTCACAGATAAGGAAGGAGAAGAGAGAGAAGATGCAGATGTCAGTGTCACTCAGAGAACAGCATTCCAGAT
CCGGCAATTTACAGAGTCTTGTGTAATTTACTTAGCAGTCAAGAGGAAGATTTAATAGCAAAGAAGCCCTCCT
GCTAGTCACGGTCTTACCAGTTTGTCCAAGTTACTGGAGCCCTCCTCTCCTCAGTTTGTGCAGATGTTATCCTG
GACATCAAAGATTTGCAAGGAAAACAGCCGGGAGGATGCCTTGTTTTGCAAGAGCTTGATGAACTTGCTCTTCAG
CCTGCATGTTTCGTATAAGAGTCTGTCATTCTGCTGCGTGACTTGTCAGGATATCCACGGGCATCTGGGAGA
TATAGACCAGGATGTAGAGTGGAGAAAACAAACCACTTTGCAATAGTGAATTTGAGAACGGCTGCCCCCACTGT
CTGTTTACTTGTCTGAGTCAGGCCGAGAAGGTTCTAGAAGAAGTGACTGGCTAATCACCAGCTTAAGGGACA
AGTGAGCCAAGAAACCTTATCAGAGGCCTCTTCTCAGGCAACCTTACCAAATCAGCCTGTTGAGAAAGCTATCAT
CATGCAACTGGGAACCTCTGCTTACATTTTCCACGAGCTGGTGCAGACAGCTCTGCCATCAGGCAGCTGTGTGGA
CACCTTGTTAAAGGACTTGTGCAAAATGTACACCACACTTACAGCCCTTGTCAGATATTATCTCCAGGTGTGTCA
GAGCTCCGGAGGAATTCCAAAAATATGAAAAAGCTGGTGAAGCTGTCTGGTTCTCATCTGACCCCCCTGTGTTA
TTCTTTTCAATTTCTTACGTACAGAATAAGAGTAAGAGCCTGAACTATACGGGAGAGAAAAAGGAGAAACCTGCTGC
CGTTGCCACAGCCATGGCCAGAGTTCTTCGGGAAACCAAGCCAATCCCTAACCTCATCTTTGCCATAGAACAGTA
TGAAAAATTTCTCATCCACCTTTCTAAGAAGTCCAAGGTGAACCTGATGCAGCACATGAAGCTCAGCACCTCACG
AGACTTCAAGATCAAAGGAAACATCCTAGACATGGTTCTTCGAGAGGATGGCGAAGATGAAAATGAAGAGGGCAC
TGCATCAGAGCATGGGGGACAGAACAAAGAACAGCCAAGAAG

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FIGURE 845

MFKDVPLTAEVEFVVEKALSMFSKMNLEIPPLVYQLLVLSKGSRKSVLEGIIAFFSALDKQHNEEQSGDELL
DVVTVP SGELRHVEGTIILHIVFAIKLDYELGRELVKHLKVGQQGDSNNNLSPFSIALLLSVTRIQRFDQVLDL
LKTSVVKSFKDLQLLQGSKFLQNLVPHRSYVSTMILEVVKNSVHSWDHVTQGLVELGFILMSYGPKKVLDGKTI
ETSPSLSRMPNQHACKLGANILLETFKIHEMIRQEILEQVLNRVVTRASSPISHFLDLLSNIVMYAPLVLQSCSS
KVTEAFDYLSFLPLQTVQRLLKAVQPLLKVSMSMRDCLILVLRKAMFANQLDARKSAVAGFLLLLKNFKVLGSL
SSQCSQSLSVSQVHVDVHSHYNSVANETFCLIMDSLRRCLSQQADVRLTYEGFYDVLRRNSQLANSVMQTLLS
QLKQFYEPKPDLLPPLKLEACILTQGDKISLQEPLDYLLCCIQHCLAWYKNTVIPLQQGEEEEEEAFYEDLDD
ILESITNRMIKSELEDFELDKSADFSQSTSIGIKNNISAFVLMGVCEVLEYNFSISSFSKNRFEDILSLFMCYK
KLSDILNEKAGAKATKMANKTSDSLLSMKFVSSLLTALFRVLLWRYTSIPTSVESGKKEKGKISLLCLEGLQK
IFSAVQQFYQPKIQQFLRALDVTDKERGEEREDADVSVTQRTAFQIRQFQRSLLNLLSSQEEDFNSKEALLVTVL
TSLSKLLEPSSPQFVQMLSWTSKICKENSREDALFCKSLMNLFSLVHSYKSPVILLRDLSDIHGHLGDIDQDV
EVEKTNHFAIVNLRATAAPTIVCLLVLSQAEKVLEEVDWLITKLKGQVSQETLSEASSQATLPNQPVKAIIMQLGT
LLTFFHELVTALPSGSCVDTLKDLCKMYTTLTALVRYYLQVCQSSGGIPKNMEKLVKLSGSHLTPLCYSFISY
VQNKSKSLNYTGEKKEKPAAVATAMARVLRETKPIPNLIFAIEQYEKFLIHLSKSKSVNLMQHMKLSTSRDFKIK
GNILDMVLREDGEDENEETASEHGGQNKPAKK

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FIGURE 846A

GGACGAGTCGAGCCTCCTGCGGCGCCGCGGGCTCCAGAAGGAGCTGAGCCTGCCACGCCGAGGACGTGGCTGCCG
CAGCGGGAACCGCAAGAGCTTGGTGGTAGGAACGCCCTCCCCGACCTCTCCCGGCCCTGTGCCATTGTCCGT
CCCAACGGCAGGCAGCAGCCCCCTTGGATAGTCCTCGGAATTTCTCGGCTGCCTCTGCCCTAAATTTCCCTTTGC
CCGGAGGGCAGACGGCAGAAGATGGTCCCTCGCGTCTCTCCCATCTTCCGGCTATGGAACCAACACACCCAGCTC
CACCTCTCGTCAAGCTCATCCTCCCGGGAACGTCTCCACCAGCTTCCCTTCCAGCCGACGCCGGACGAGCTGCA
CTTCTGTCCAAGCACTTCCGCAGCTCAGAGAATGTGCTTGATGAGGAAGGCGGCCGGTACCCCGCTCCGACC
CCGCTCTCGCAGTCTCAGCCCGGGCCGTGCAACGGGGACCTTCGACAATGAGATTGTATGATGAATCACGTGTA
CCGGGAGAGGTTCCCCAAGGCCACAGCACAGATGGAGGGCCGTCTGCAGGAGTTCCTGACGGCCTACGCGCCCGG
CGCCCGGTGGCGCTGGCTGATGGCGTCTTGGGCTTCATCCACCACCAGATCGTCGAGCTGGCCCGAGACTGCTT
GGCCAAGTCTGGCGAGAACCTCGTCACCTCCCGCTACTTCTAGAGATGCAGGAGAAGCTGGAGCGGCTTCTGCA
GGATGCCCCATGAGCGTTCGGACAGTGAGGAGGTGAGCTTCATCGTCCAGCTTGTCCGAAACTGCTGATCATCAT
CTCACGGCCAGCTCGGCTGCTGGAGTGTCTGGAGTTTGACCTGAGGAATTTTACCACCTGCTGGAGGCGGCTGA
GGGCCATGCGCGGGAGGGCCAAGGCATTAAGACTGACCTTCCACAGTACATCATTGGGCAGCTGGGCCTGGCCAA
GGACCCCTGGAGGAGATGGTGCCACTGAGTCACCTCGAAGAAGAACAGCCCCCAGCACCTGAGTCCCCAGAGAG
CCGCGCCCTGGTTCGGCCAGTCACGGAGGAAGCCATGCGAAAGCGACTTTGAGACCATCAAACCTCATTAGCAACGG
AGCCTATGGGGCCGTCTACCTGGTTCGGCACCGTGACACACGGCAGCGCTTTGCCATCAAGAAGATCAACAAACA
GAACTTGATCCTGCGTAACCAGATCCAGCAGGTCTTTGTGGAGCGTGACATTCTCACCTTTGCCGAGAACCCCTT
TGTGGTCAGCATGTTCTGCTCCTTTGAGACCCGGCGCCACCTATGTATGGTCATGGAATACGTGGAAGGCGGCGA
CTGCGCCACGCTCCTGAAGAACATGGGCCCCGTGCCCCGTGGACATGGCCCGCCTGTACTTCGCCGAGACGGTGTT
GGCGCTGGAGTACCTGCATAACTATGGCATCGTGACCGTGACCTCAAACCAGACAATCTGCTCATCACCTCGCT
TGGCCACATCAAGCTCACGGACTTCGGCCTGTCCAAGATCGGCCTCATGAGCATGGCCACCAACCTCTATGAGGG
CCACATCGAGAAGGACGCCCCGAGAGTTTCATCGACAAGCAGGTGTGTGGGACGCCGGAGTACATAGCCCCCAGGT
GATCTTCCGCCAGGGCTATGGGAAGCCAGTGGACTGGTGGGCCATGGGCGTCGTCCTCTATGAGTTTCTGGTGGG
CTGCGTGCCTTTCTTTGGAGATACCCCCGAGGAACCTTTCGGTTCAGGTGGTCAGCGATGAGATCATGTGGCCAGA
GGGAGATGAGGCCCTTCCAGCAGACGCCCAGGACCTCATCACAGGTTGCTCCGGCAGAGCCCGCTGGACCGTCT
GGGCACTGGTGGCACCCACGAAGTGAAGCAGCACCCCTTTTTCTGGCCCTGGACTGGGCAGGGCTTCTCCGACA
CAAAGCCGAGTTCGTGCCCCAGCTCGAAGCCGAGGATGATACCAGCTACTTTGACACACGTTCCGAACGTTACCG
CCATCTGGGCTCCGAGGACGACGAGACCAATGATGAAGAATCGTCCACAGAGATCCCCAGTTCTCCTCCTGCTC
CCACCGGTTTCAGCAAGGTCTACAGCAGCTCTGAGTTCTTGGCCGTCCAGCCCACTCCTACCTTCGCTGAAAGGAG
CTTCAGTGAAGACCGGGAGGAGGGGTGGGAGCGCAGCGAAGTGGACTATGGCCGCCGGCTGAGTGCTGACATCCG
GCTGAGGTCTTGGACATCCTCTGGATCCTCCTGTGAGTCATCTTCGTCCCAGCCGAGCGGGGTCCAGCCCATC
TCTCCTGAATACCATCAGCCTGGACACAATGCCAAGTTTGCTTCTCATCAGAGGATGAGGGGGTAGGCCCAGG
CCCTGCAGGCCCCAAGAGGCCCGTCTTCAATTCTAGGGGAGCCTGACCCCCACCAGCGGCCACCCAGTGATGCC
CAAGCCCTCGAGCCTTTCTGCCGACACAGCTGCTCTCAGCCACGCCCCCTACGGAGCAATAGCATCGGCGCCCG
ACACTCCACACCAAGGCCTCTGGATGCCGGCCGGGGCCCGCCCTTGGGGGCCCAAGAGACCCAGCCCCTGAGAA
GTCCAGAGCCTCCTCCAGCGGTGGCAGTGGTGGCGGCAGTGGGGGCCGCGTGCCCAAGTCAGCCTCTGTCTCTGC
CCTGTCCCTCATCATCACGGCAGATGATGGCAGCGCGGCCCCCTCATGAGCCCCCTTTCCCCGCGCTCTCTGTC
CTCGAACCCGTCGTCCCGTGACTCTTCGCCGAGCCGAGACCCGTCCCCCGTGTGTGGCAGCCTGCGGCCCCCAT
CGTTATCCACAGCTCTGGCAAGAAGTACGGCTTCAGCCTGCGGGCGATCCGCGTCTACATGGGTGATAGCGACGT
CTACACTGTGCACCACGTCTGTCTGGAGTGTGGAGGACGGAAGCCCCGCCAGGAGGCGGGCTGCGGGCTGGGGA
CCTCATCACCCACATCAACGGGGAGTCACTGCTGGGGCTGGTGACATGGACGTCGTGGAGCTGCTGCTGAAGAG
CGGCAACAAGATATCCCTGCGGACCACAGCCCTGGAGAACACCTCCATCAAGGTGGGCCCCGCCCGGAAGAATGT
GGCCAAGGGCCGCATGGCACGCAGGAGCAAGAGGAGCCGTGGCGGGGAGACCCAGGATCGGCGGAAGTCACTTTT
CAAGAAGATCTCCAAGCAGACCTCCGTGCTGCACACCAGCCGAGCTTCTCCTCCGACTCCACCACTCACTGTC
ATCCAGTGAGAGCCTCCCCGGCTCGCCACCCACAGCCTCTCCCCAGCCCCACCACTCCCTGCCGAAGCCCAGC
CCCTGATGTCCCAGCAGATACCACTGCATCCCCACCCAGCGCATCCCCGAGCTCCAGCAGCCCCGCCTCCCCAGC
TGCTGCTGGCCACACCCGCCCCAGCTCCCTGCACGGCCTGGCTGCCAAGCTTGGGCCACCCCGCCCCAAGACTGG
CCGCCGAAGTCCACCAGCAGCATCCCGCCCTCCCCGCTGGCCTGCCCGCCCATCTCCGCGCCCCCACCCCGCTC

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FIGURE 846B

GCCCTCGCCCCCTGCCCCGGGCACCCGCCCGCACCTGCCCGATCCCCGCGGCTGCGCCGGGGCCAGTCAGCTGACAA
GCTGGGCACAGGGGAGCGGCTGGATGGGGAGGCGGGGCGGCGCACTCGTGGGCCAGAGGCCGAGCTCGTGGTCAT
GCGGCGGCTGCACCTGTCCGAGCGCCGAGACTCCTTCAAGAAGCAGGAGGCCGTGCAGGAGGTTAGCTTCGATGA
GCCGAGGAGGAGGCCACTGGGCTGCCACCTCAGTGCCACAGATCGCCGTGGAGGGCGAGGAAGCCGTGCCAGT
AGCTCTCGGGCCACCGGAAGAGACTGATCCCCCTGCCAGGTCTCTCCCTGGCATCAAAGTTACGCGTTTTCTTGT
GCAATGTTTTTCCGTAAAGTCATGCCTGGATGGGGACTGAGCCACCAGCCTGACACCCAGAAGGCGAGAAGCCA
TCTCGGTCTTGTGCTGGAAGGTGGAGACATCGCTTGTGTTCTGGTGTCATCAGGGGGCTGGATGGGGCAAGAATG
GGGGACAAGGGTGGCTTTGTAAATAGCAGCAAATCCCTGCAACTAATTTATTACTTTTTTTTTCTTTTTTTTTT
TTTTTTTGAGACAGAGTCTCACTCTGTTGCCCGGCTGGAGTGACGCGCGTGATCTCAGCTCACTGCAACCTCC
GCCTCCCAAGTTCAAGCGATTGCTCTGCCTCAGCTTCCCAAGTGGCTGGGATTACAGGCGCCCACTATGCCC
AGCTAATTTTTTGTATTTTTAGTACAGACGGGGTTTACCATTGTTGGTCAGGCTGGTCTCGAACTCCTGACCTCA
TGATTTGCCTGCCTTTGCCTCCCAAAGTGCTGGGATTACAGGCGTGAGCCACTGGGGCCAGCCTAATTTATTACT
TTTTATAAGCGATAGCCGTACTGAGCCGCCCCCTGAAGGCGGCTGCCAGGTCTTGCCCCAGGCACCTGGGACTCT
GTTTGACAGGCCCTGCCCTCTGGGCTGAGAAGGATGCACTTTGGACAAGTCATCTGTGTTTGTGTTTTCCAGTTTT
TCTGTACTTTTTAAGTGTTTTGTGTTACCTGGTCTCATTCCCTCCCCACACCTACCCATTTGAGGGGATGGAGT
TGAAGTCACCTGGTCACCTGTACCGGCCAGTTCGGCTACAACCTGGAGTGTCCGTAAACAATTCTCTCACCCA
CAAAACAATGTAATCCCAGCGATGGACTGGATTCTGAAGGCCACTTCCACCATCATAGCTGCCATGCCCAGGCA
GTGCCTGCTCTATATATAGAGTCTGCCTCCAATCTGCTGGCTTCAGCCTGGAGAAGGGATATGGGAGCTGGAGC
TTTGATGGATGAATAGGTGTTACCGGATCTGGGCAGAGGGGTCATCCGCTCCCCAGGTGGGCACTGATAAAGGA
AGGTACAGGCCTCACCTGGAAGTCCAAGGCAGCCTCCAGAAATGCTCGGCTGTCTCGGGGCACGCTCCAGTATG
CCAGTCTGCGGGATTACGTCCAGCTACTTCCAGAAACACTCAGTGTCCCCTCCCCTCAGGCTCTGCCTTGGCCT
GGCCTTGTCCAGTCTACCCTGGACAAGATGCCGTGTGTTTGGAGGCCAGCAGAGTAAGCCCTTGCCGTGATGTG
TCTGAAACACCTGTTAGGGGTTCCCTCCATATGTGAGAGCCTCTCTGGGATGAAGTTCAAGCCAGAAAACCCAGT
CGAGGCTCAAGTTTGAATTTAGCTTCACTGTGTGGCTCTGGGAAAATGGCTTTCCCACTCTGTGCCTCAGTTTC
CTTGTGTTTACAAGACTAATCCCATTGACTGTTTATTAAGCACCTACTGTGTGCCAAGCGTTTTACGTGGCTTC
TCCCTCAGCCAGCCTTGAGAAGGCTGGAGGTGGTGTGTCATCACCTCCATTTTACAGACAAAGCAGCTGAGACCCCA
GCGAGGGGCGGAGACCTGTCCACGATCACCCAGCAGGAGTCGTGGCAGAACGGAGCATCAGCCAGACCCTGTTG
TGGGCGTTGTCATCAAGGGAGCTTGAATGGAGGGTCTGGTGTGATACAGCCGACTCCAGCCCCAGCTCATCCC
CCATGATGCTGTGTGACCCACTGGGCACTCTGGTGAGGGAGCTTCCAGACATCAACAGCCCCTCTGCTTCCCT
TTCTGAGTCCCCTGTCCAGCACTGCCTAGTGTGGAGGGTAGACCAAGGCTGTGCATGATTACCCCCCTCCTTCC
ATCCTGGAGCTGGCAGTGAATAAAAGCCCGTATTTAC

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FIGURE 847

DESSLRRRGLQKELSLPRRGRGCRSGNRKSLVVGTPSPTLSRPLSPLSVPTAGSSPLDSPRNFS AASALNFPFA
RRADGRRWSLASLPSSGYGTNTPSSTLSSSSSSSRERLHQLPFQPTPDELHFLSKHFRSSENVLDEEGGRSPRLRP
RSRSLSPGRATGTFDNEIVMMNHVYRERFPKATAQMEGRLOEFLTAYAPGARLALADGVLGFIHHQIVELARDCL
AKSGENLVTSRYFLEMQEKLRLQDAHERSDSEEVSFIVQLVRKLLIIISRPARLLECLEFDPEEFYHLLAEAE
GHAREGQGIKTDLPQYIIGQLGLAKDPLEEMVPLSHLEEEQPPAPESPESRALVGQSRRKPCESDFETIKLISNG
AYGAVYLVHRDTRQRFIAKKINKQNLILRNQIQQVFVERDILTFAENPFVVSMTFCSEFETRRHLCMVMEYVEGGD
CATLLKNMGPLPVDMARLYFAETVLALEYLHNYGIVHRDLKPDNLLITSLGHIKLTDFGLSKIGLMSMATNLYEG
HIEKDAREFIDKQVCGTPEYIAPEVIFRQGYGKPVDDWAMGVVLYEFLVGCVPFFGDTPEELFGQVVSDEIMWPE
GDEALPADAQDLITRLLRQSPDLRLGTGGTHEVKQHPFFLALDWAGLLRHKAEFVPLEAEDDTSYFDTRSERYR
HLGSEDDDETNDDEESSTEIPQFSSCSHRFSKVYSSSEFLAVQPTPTFAERSFSEDREEGWERSEVDYGRRLSADIR
LRSWTSSGSSCQSSSSQPERGPPSPSLLNTISLDTMPKFAFSSSEDEGVGPGPAGPKRPVFI LGEPDPPPAATPVMP
KPSSLSADTAALSHARLRNSIGARHSTPRPLDAGRGRRLGGPRDPAPEKSRASSSGGSGGGSGGRVPKSASVSA
LSLIITADDGSGGPLMSPLSPRSLSSNPSSRDSSPSRDPSPVCGSLRPPIVIHSSGKKYGFSLRAIRVYMGDSDV
YTVHHVVWSVEDGSPAQEAGLRAGDLITHINGESVLGLVHMDVVELLKSGNKISLRTTALENTSIKVGPAKKNV
AKGRMARRSKRSRRRETQDRRKSLFKKISKQTSVLHTSRFSGLHHSLSSESLEPGSPTHSLSPSPTTPCRSPA
PDVPADTTASPPSASPSSSSPASPAAAGHTRPSSLHGLAAKLGP RPKTGRRKSTSSIPPSPLACPPISAPPPRS
PSPLPGHPPAPARSPRLRRGQSADKLGTGERLDGEAGRRTRGPEAELVVMRRHLHLSERRDSFKKQEAQVEVSFDE
PQEEATGLPTSV PQIAVEGEEAVPVALGPTGRD

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FIGURE 848

AGAAGAAGCTGGCCAAGGATATGGGAGCAACCACC**ATG**GACCAGAAGTCTCTCTGGGCAGGTGTAGTGGTCTTGC
TGCTTCTCCAGGGAGGATCTGCCTACAACTGGTTTGCTACTTTACCAACTGGTCCCAGGACCGGCAGGAACCAG
GAAAATTCACCCCTGAGAATATTGACCCCTTCCTATGCTCTCATCTCATCTATTTCATTGCGCCAGCATCGAAAACA
ACAAGGTTATCATCAAGGACAAGAGTGAAGTGATGCTCTACCAGACCATCAACAGTCTCAAAACCAAGAATCCCA
AACTGAAAATTCTCTTGTCATTGGAGGGTACCTGTTTGGTTCCAAAGGGTTCCACCCTATGGTGGATTCTTCTA
CATCACGCTTGGAATTCATTAACCTCCATAATCCTGTTTCTGAGGAACCATAACTTTGATGGACTGGATGTAAGCT
GGATCTACCCAGATCAGAAAGAAAACACTCATTTCACTGTGCTGATTCATGAGTTAGCAGAAGCCTTTCAGAAGG
ACTTCACAAAATCCACCAAGGAAAGGCTTCTCTTGACTGCGGGCGTATCTGCAGGGAGGCAAATGATTGATAACA
GCTATCAAGTTGAGAACTGGCAAAAGATCTGGATTTTCATCAACCTCCTGTCCTTTGACTTCCATGGGTCTTGGG
AAAAGCCCCCTTATCACTGGCCACAACAGCCCTCTGAGCAAGGGGTGGCAGGACAGAGGGCCAAGCTCCTACTACA
ATGTGGAATATGCTGTGGGGTACTGGATACATAAGGGAATGCCATCAGAGAAGGTGGTCATGGGCATCCCCACAT
ATGGGCACTCCTTCACACTGGCCTCTGCAGAAACCACCGTGGGGGGCCCCTGCCCTCTGGCCCTGGAGCTGCTGGAC
CCATCACAGAGTCTTCAGGCTTCCTGGCCTATTATGAGATCTGCCAGTTCCTGAAAGGAGCCAAGATCACGCGCC
TCCAGGATCAGCAGGTTCCCTACGCAGTCAAGGGGAACCAAGTGGGTGGGCTATGATGATGTGAAGAGTATGGAGA
CCAAGGTTGAGTTCTTAAAGAATTTAAACCTGGGAGGAGCCATGATCTGGTCTATTGACATGGATGACTTCACTG
GCAAATCCTGCAACCAGGGCCCTTACCCTCTTGTTCCAAGCAGTCAAGAGAAGCCTTGGCTCCTTG**TGA**AGGATTA
ACTTACAGAGAAGCAGGCAAGATGACCTTGCTGCCTGGGGCCTGCTCTCTCCAGGAATTCTCATGTGGGATTCC
CCTTGCCAGGCTGGCCTTTGGATCTCTCTTCCAAGCCTTTCCTGACTTCCTCTTAGATCATAGATTGGACCTGGT
TTTGTCTTCTGCTGAGCTGTTGACTTGTTGCCCTGAAGTACAATAAAAAAATTCATTTTGCTCCAGTA

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FIGURE 849

MDQKSLWAGVVLLLLQGGSAYKLVCYFTNWSQDRQEPGKFTPENIDPFLCSHLIYSFASIENNKVIIKDKSEVM
LYQTINSLKTKNPKLKILLSIGGYLFGSKGFHPMVDSSSRLEFINSIILFLRNHNFDGLDVSWIYPDQKENTHF
TVLIHELAEAFQKDFTKSTKERLLLTAGVSAGRQ MIDNSYQVEKLAKDLDFINLLSFDFHGSWEKPLITGHNSPL
SKGWQDRGPSSYYNVEYAVGYWIIHKGMPSEKVVMGIPTYGHSFTLASAETTVGAPASGPGAAGPITESSGFLAYY
EICQFLKGAKITRLQDQQVPYAVKGNQWVGYYDDVKSMETKVQFLKNLNLGGAMIWSIDMDDFTGKSCNQGPYPLV
QAVKRSLGSL

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FIGURE 850A

GGAATAACAAAACATGCTCTTAACCATCATCCCCCTCCAGAGAAGCTGGAGGAAATTTCCCCACCAGTGACAGT
CATGAGAAAGACACAAGTTCCCAAAGCAAGTCTGACATCACAAGAGAATCATCTTTTACATCAGCCGACACTGGG
AATTCAGTGTCTGCTTTTCCAAGTTATACAGGCGCAGGGATATCTACTGAAGGAAGCTCGGACTTCTCCTGGGGA
TATGGTGAAGTTCGATCAAAATGCCACTGAAAAAGTCCAGACAATGTTACAGCCATTGATGAAGTCTTGATGAG
CAGAAGTTGAGTGTGCATACCAAGAGTCTACAAGAAGAGTGCCAACAGTGGACAGCTAGCTTTCTCACCTCAGG
ATTCTAGGTAGGCAGATAATCACTCCAAGTGAAGGTTATAGATTGTATCCTAGATCCCCCTTCTGCTGTTTCCGCT
TCATATGAAACAACCTTGTCTCAAGAAAGAGATTCTACTATATTTGGTATAAGGGGAAAGAAGTTACATTTTTCA
TCTTCTTATGCTCATAAAGCATCTTCCATTGCCAAATCCTCCAGCTTTTGTTCATGGAAGAGATGAGGAAGAC
TCTATAATCGTCTCAGAAGGAATAATTGAGGAATACCTAGCATTCGATCACATAGATATAGAAGAGGGATTTCAT
GGGAAGAAATCAGAAGCAGCTACAGAGAAACAGAAATTAGGGTATCCTCCCATTGCTCCATTTTACTGCATGAAA
GAAGATGTCTTGTCTTATGTGTTTGACAGTGTATGGTGCAAGGTTGTGAGCTGTATGGAGCAGTTGACACGTAGT
CACTGGGAAGGATTGCTCTGATGATGAGAGTAATGTTGCAGTTACCAGACCCGATTGAGAAAGTTTCTGTGTG
CTGAGTGAAGTACATCCTTTGGTGTTACCGCGAGTGCCACAGTCTAAGGTGCTGTACATTACCTCAAATCCGATG
AGTCTCTGTCAAGCAAGCAGACATCAGCCAAATGTGAATGATCTCTTGGTTCATGGAATGCCTCTACAGCCAAGA
AATCTCTCCCTAATGGACAAGCTCCTAGATCTTGATGACAAGCTACTTATGAGGCCTGGGTCCAGTACCATCCTT
TCAACTCGAAATGGCCAAATCGAGCTGTGGAGTTTGTACATCATCTCTGTGCATACACAGTGCAGTCCACCAGG
AGACGCAATCCACCACCACGAAGTCTTTCATCCGATCAGCAGAGCCATTGATGTGCTGAAACACCAAGATCTGTG
GAAGAAATCCTCAGAGGAGCCCGAGTCCCAGTGGCAGCCGACTCGCTCTCCTCTCCCTCAGGACGCCCCCTGAGT
CGAAATAATCTGCTACCACCTATTGGCACAGCTGAAGTGAACATGTGAGCACTGTGGGGCCACAAAGACAGATG
AAACCCCATGGCGACTCTAGTCGAGCTCAAAGTGCAGTGGTGGATGAACCTAACTATCAGCAGCCACAAGAAAGG
CTCCTTTTGGCCGACTTTTTTCCCCAGGCCCAACACAACCTCAATCATTTTTTGTGCTGGATACACAGTATCGTCGCTCA
TGTGCAGTTGAGTATCCTCATCAGGCCCGACCTGGCAGGGGATCTGCAGGTCTCAGTTACATGGGTCTACAAAA
TCTCAAAGCGGAGGCAGACCAGTCTCTCGAACCAGGCAGGGACCA~~TAA~~GGCAAATGAGAAGAATCTATCAGGCTG
CAGGAAACACGAGATTTTATGAAGCAGTATTCAGTCATCAAGTGATGCAGAGCTTGATAGAAGATCGACTAGAA
ATCATCTTCATGAAGAGTGATTTTGGCACAAGTGACCGAAGAACAAAACACCATAGCAGCCAAAAATGACATGAG
TGTTGTTTCTATCTCCAGTTACTGTCTCTTTTTCAGCAGAAATTAACCTATCCCATTGGAAGGCAAGTTTGTACCC
AAAGATGCAACAGTGAATAATACCCAAATCACTGCTCATGTTATCTCTTAACAATGATCAGTTCAATCATATAGG
ATTTGATGAGCTCACACATACACAAAAGCAGCAAAATCATCAGTGACAATATCACTGGCTTCAGAATACTTCAGC
CTGTGTTTCAATTTCTGGAGAGTTGTACTCAGTTTTAAGTCATTTTGTGTTGAAAATCTGACCTCATCAAATAGAT
GTCATTCCCTAAACTCTCTTTAGATGTCTACCTATCAGCAGATTAAATGGAAGGGGTGTGTAATACTAAAAACA
TAAATGTTAAGCATTAGTATAAAGTAACTTCTGTAATAAATTATATCGCATATTTTTTTCAGATAGGACAGCTCAA
CCTTACGATGCCTACCTGATGCCAGGTGATGCTTATTTTCTTCTAAAGTAGGTTACTGGTCATATCTTTTTTCC
AAATATTAAATGCACCTTGCCAGATATTCTCTGTCAGCTCTAAGGAAAGGAAATCAATTTAAAAATAATTTGTAG
AATCTACTATTGAGCCACCAAAGTATAATTCCCTAAAAGTTAAGAAACCCTGGCAATTAATTCAGCATAAACAT
ATCCTATAAACAGCAGGAGAGGTTTCTGATTTTACTGTGGACCTTTTCTAAGGGCATTTCATGAATGCA
GCAACAGTTTTAACTATGGCTTACATTTATTTTAAATTTCACTAAATACAAATCTTGATTGTCATGCCAGTTTAA
GATCTTATTAATTTTTCAGAAATGGATAAATTCAAATAATCATAAATTACGGTAACCTTTTTATTATACCAAGGTGTT
CTAATGCCATCATATGAAGACAGATGCTTCAAACAACCTGCATTAAATTTATTTTTTAAATAAAATTTAAATCTAT
TTTTAACCTATTTGTAGTCACAAACCGAAAACGTGTGCTCTTTACCTTAGAGCTAAAGGCTTACTTTATGCATAC
GGTATATTTAATAGTCTACAAATCAAAGATTTAAACAGTCCCTTAAAAATTCATATATTTTTCATACCAACTCAT
CTACATAGAAATGAAAATCTCTATTGTTCTCACAAACCATTACCATGAGTTCACTATAACAACCTGGATCAATATG
GCTTGCCCTTTCAAAGTTAAAGAATCAGAAAGGGGCTGTAAAGAGTCATTTAGCCCAATTCCTCACCCTGTGTG
TTTTCCCTCAAAGCCAGTGCAATTTTTTTTTTAAACAAAAAACTGGACATGTTTAAATACATACAGTTTGACAAATT
TGGATTTCACTCTTTGTTTTGATGTAGTAACTCTTTTATAAAAGGGGAACAGATTTCAGACAAGCTCAGTGGCCCAA
CTGAAGACATTGAGCAATTAATGGCAGGACTTCAGTAATCAGTGGCAGGACTACAACATACATCTCTTCATGCTA
GGGAACACAGGCTCTCTATTATAAAGCTGACCAGGGCTATTGTTTTCCCTTTTCTCTCATCCTAAACACCATTC
ATATTTTTCTAGGTCACATTTTAGTGGGATCATTTACAAAGCCCCCAGAACTTAATCATCATGTTTTACCTTTT
TTATTGAATTATATACACCTCTTACAAAAATGCTTGAAGTAATTTAACACCTGTACATCAGTACAAAACCTGGCT

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FIGURE 850B

GAGTAAATGAAGAGAGGATCTATTCAAGATCATTAAAGACCAAATGTAAACTGGGAAGTATGTGGAAGATAGCTG
TCCAGCAAGTGTCTGGAAGGTGTTCTAGCTGGGTAGAGAGCCTATTCTAACAGACACGCACATCGCAGAAAGCAG
CATGAACAGAACCACATCCTAGATAAGAGTTCTGTGTACAGAAGATCCATGGAGGCAAGTGCTGTCAGGAAGGAC
ACTGCCTCCCTCCACCCTCCCAAATGTCACCACCAAGTTCCTTCAGGTGAGACCTCACACAATGTCAAGTGCTTT
CTAGGAAATACTAAGATCAGGTTGAGAGATTCTGCTTGGTCTAGTCAATCTGAAAAATTCAGGCTGGAAAGACAC
CTTTTCTCAAGAGCTGAATTGACTTTTGCCTTCAAATCCTGCCTGCACCTTGCCTACGATGGCATCAATTTACAC
CTAAGGACCTTTGAAGAGAAAAATTCATTATTTCTTTTCTTTCTTGAGAGCAGATTTTTTCCCTCCTCCTTTGG
AAGATTTGCAGTACTTTGCTTCCATCTGAGCCAGAAAATTGTCCATTTCTTTTGCCGATCCTTTTGTCTGCTCT
GTTTGAGAAGTTAAACACAAGCTTTCACAACATTATCCATAGACAGAAAGTACCTAGTGTTGCCAGGGGCTGG
AAAAGTGGAATAACTACTAATGGGTATGGAGTTTTTTTTGGAATGGTGAAAATGTCCTACAATTGGTGTTAATAAT
TGTAAACTTTGTAAATACACTTAAACCACCAAATTGTACACTTTAAAAGGACAAATAGAAGGTATGCGGTTAT
GTCTTAAAAGAAGAAAAACAAAATACAACATTCCAAAGAAAATATTAGCAGTAGGAATCAGATCATTAAAGATGTG
GCAACAACTGCCAAGTTTACCTGAATGGCTGCCTTCAGGCTATCCACGCCCTTCATCAAGCCCCAACTCCTTTCT
GCTCATTTCTGCTTCTTTGGCCTCTTCCTGAGCCTGAAACAGGAACCTCACATGAGACTCAGGGCCACCAGGAAAT
GCTTAAATACATACTCTTTCCCAAAGCAAATCTATAATTCTGTTTCAATTTTATGAATATATGAATAGACAAA
ATGAATCGAATTACATAACTATGTCATTATTAAATGGCAACAATGCTGACAGCAAGCAGTAGATCCTCTGATTC
CAATTACCATTTGTTTTTTACCCAATTCTATTTGCTAGAGGTAGTAAGTACTCTGGCACTCATAAATCACATGAT
GATAAAAAGGAACATGAGGCCGGGTATGGTGGCTCACAACCTGTAATCCCCATACCTTGGGAGGCCAAGGTGGGAG
GATCACTTGAACTCAGGAGTTCAAGACCTGCCTGGGTAACATAGTGAGACCTCAGTTCTATAAAAAAGAAAAGAA
ATGAGCCTGGTGTGGTGGCATGTGCTTGTAGTCCCAGCTACTAGGGAGGCTGAGGTGGGAAGATGGCTTCAGTCT
GAGAGTTCAGGCTGCAATAAGCTGTGATCATGCCTCTGCACTCCAGCCTGGGTGATGGAGATGCCATCTCTTAGA
AAAAAGAG

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FIGURE 851

GITKHALNHPPPEKLEEISPTSDSHEKDTSSQSKSDITRESSFTSADTGNSLSAFPSTGAGISTEGSSDFSWG
YGELDQNATEKVQTMFTAIDELLYEQKLSVHTKSLQEECQQTASFPHLRILGRQIITPSEGYRLYPRSPSAVSA
SYETTLNQERDSTIFGIRGKKLHFSSSYAHKASSIAKSSSFCSMERDEEDSIIVSEGIIEEYLAFDHIDIEEGFH
GKKSEAATEKQKLGYPPIAPFYCMKEDVLAYVFDVWCKVWSCMEQLTRSHWEGFASDDENAVATRPDSESSCV
LSELHPLVLPVFPQSKVLYITSNPMSLCQASRHQPNVNDLLVHGMPLOPRNLSLMDKLLDLDKLLMRPGSSTIL
STRNWPNAVEFSTSSLSYTVQSTRRRNPPRTLHPISTSHSCAETPRSVEEILRGARVPVAPDSLSSPSPTPLS
RNNLLPPIGTAEVEHVSTVGPQRQMKPHGDSSRAQSAVVDEPNYQQPQERLLLPDFFPRPNTTQSFLDQTQYRRS
CAVEYPHQARPGRGSAGPQLHGSTKSQSGRPVSRTRQGP

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FIGURE 852A

GGAATAACAAAACATGCTCTTAACCATCATCCCCCTCCAGAGAAGCTGGAGGAAATTTCCCCACCAGTGACAGT
CATGAGAAAGACACAAGTTCCCAAAGCAAGTCTGACATCACAAGAGAATCATCTTTTACATCAGCCGACACTGGG
AATTCAGTGTCTGCTTTTCCAAGTTATACAGGCGCAGGGATATCTACTGAAGGAAGCTCGGACTTCTCCTGGGGA
TATGGTGAACCTCGATCAAAATGCCACTGAAAAAGTCCAGACAATGTTACAGCCATTGATGAACTCTTGATGAG
CAGAAGTTGAGTGTGCATACCAAGAGTCTACAAGAAGAGTGCCAACAGTGGACAGCTAGCTTTCCTCACCTCAGG
ATTCTAGGTAGGCAGATAATCACTCCAAGTGAAGGTTATAGATTGTATCCTAGATCCCCTTCTGCTGTTTCCGCT
TCATATGAAACAACCTTGCTCTCAAGAAAGAGATTCTACTATATTTGGTATAAGGGGAAAGAAGTTACATTTTTCA
TCTTCTTATGCTCATAAAGCATCTTCCATTGCCAAATCCTCCAGCTTTTGTCTATGGAAAGAGATGAGGAAGAC
TCTATAATCGTCTCAGAAGGAATAATTGAGGAATACCTAGCATTGATCACATAGATATAGAAGAGGGATTTCAT
GGGAAGAAATCAGAAGCAGCTACAGAGAAACAGAAATTAGGGTATCCTCCCATTGCTCCATTTTACTGCATGAAA
GAAGATGTCCTTGCTTATGTGTTTGACAGTGTATGGTGCAAGGTTGTGAGCTGTATGGAGCAGTTGACACGTAGT
CACTGGGAAGGATTTGCCTCTGATGATGAGAGTAATGTTGCAGTTACCAGACCCGATTGAGAAAGTTTCTGTGTG
CTGAGTGAACCTACATCCTTTGGTGTACCGCGAGTGCCACAGTCTAAGGTGCTGTACATTACCTCAAATCCGATG
AGTCTCTGTCAAGCAAGCAGACATCAGCCAAATGTGAATGATCTCTTGTTTCATGGAATGCCTCTACAGCCAAGA
AATCTCTCCCTAATGGACAAGCTCCTAGATCTTGATGACAAGCTACTTATGAGGCCTGGGTCCAGTACCATCCTT
TCAACTCGAAATGGCCAAATCGAGCTGTGGAGTTTGTACATCATCTCTGTGCATACACAGTGCAGTCCACCAGG
AGACGCAATCCACCACCACGAACCTTTCATCCGATCAGCAGCAGCCATTGATGTGCTGAAACACCAAGATCTGTG
GAAGAAATCCTCAGAGGAGCCCGAGTCCCAGTGGCACCCGACTCGCTCTCCTCTCCCTCACCGACGCCCCCTGAGT
CGAAATAATCTGCTACCACCTATTGGCACAGCTGAAGTGGAAACATGTGAGCACTGTGGGGCCACAAAGACAGATG
AAACCCCATGGCGACTCTAGTCGAGCTCAAAGTGCAGTGGTGGATGAACCTAACTATCAGCAGCCACAAGAAAGG
CTCCTTTTGGCCGACTTTTTCCCCAGGCCCAACACAACCTCAATCATTTTTTGTGGATACACAGTATCGTCGCTCA
TGTGCAGTTGAGTATCCTCATCAGGCCCGACCTGGCAGGGGATCTGCAGGTCCTCAGTTACATGGGTCTACAAAA
TCTCAAAGCGGAGGCAGACCAGTCTCTCGAACCAGGCAGGGACCATAAGGCCAAATGAGAAGAATCTATCAGGCTG
CAGGAAACACGAGATTTTCATGAAGCAGTATTTCAGTCATCAAGTGATGCAGAGCTTGTATAGAAGATCGACTAGAA
ATCATCTTCATGAAGAGTGATTTTGGCACAAGTGACCGAAGAACAACACCATAGCAGCCAAAAATGACATGAG
TGTTGTTTCTATCTCCAGTTACTGTCTCTTTTCAGCAGAAATTAACCTATCCCATTGGAAAGGCAAGTTTGTACCC
AAAGATGCAACAGTGAATAATACCCAAATCACTGCTCATGTTATCTCTTAACAATGATCAGTTCAATCATATAGG
ATTTGATGAGCTCACACATACACAAAAGCAGCAAATCATCAGTGACAATATCACTGGCTTCAGAATACTTCAGC
CTGTGTTCAATTTCTGGAGAGTTGTACTCAGTTTTAAGTCATTTTGCTGTTGAAAATCTGACCTCATCAAATAGAT
GTCATTCTTAAACTCTCTTTAGATGTCTACCTATCAGCAGATTAAATGGAAGGGGTGTGTAATAATAAAACA
TAAATGTTAAGCATTAGTATAAAGTAACCTCTGTAATAAATTATATCGCATATTTTTTCAGATAGGACAGCTCAA
CCTTACGATGCCACCTGATGCCAGGTGATGCTTATTTTCTTCTTAAAGTAGGTTACTGGTCATATCTTTTTTCC
AAATATTAAATGCACCTTGCCAGATATTCTCCTGCAGCTCTAAGGAAAGGAAATCAATTTAAATAAATTTGTAG
AATCTACTATTGAGCCACCAAAGTATAATTCCCTAAAAGTTAAGAAACCCTGGCAATTAATTCAGCATAAACAT
ATCCTATAAACAGCAGGAGAGGTTTCTGATTTTACTGTGGACCTTTTCTTAAAGGGCATTTCATGAATGCA
GCAACAGTTTTTAATATGGCTTACATTTATTTTAAATTTCACTAAATACAAATCTTGATTGTCATGCCAGTTTTA
GATCTTATTAATTTTCAGAAATGGATAAATTCAAATAATCATAAATTACGGTAACTTTTTATTATACCAAGGTGTT
CTAATGCCATCATATGAAGACAGATGCTTCAAACAACCTGCATTAAATTTATTTTTTAAATAAAATTTAAATCTAT
TTTTAACCTATTTGTAGTCACAAACCGAAAACGTGTGCTCTTTACCTTAGAGCTAAAGGCTTACTTTATGCATAC
GGTATATTTAATAGTCTACAAATCAAAGATTTAAACAGTCCCTTAAAAATTCATATATTTTCATACCAACTCAT
CTACATAGAAATGAAAATCTCTATTGTTCTCACAACCATTACCATGAGTTCACTATAACAACCTGGATCAATATG
GCTTGCCCTTTCAAAGTTAAAGAATCAGAAAGGGGCTGTAAAGAAGTCATTTAGCCCAATTCCTCACCCTGTGTG
TTTTCCCTCAAAGCCAGTGCAATTTTTTTTTTAAACAAAAAACTGGACATGTTTAATACATACAGTTTGACAAAT
TGGATTTCACTCTTTGTTTTGATGTAGTAACCTCTTTTATAAAAGGGAACAGATTTCAGACAAGCTCAGTGGCCCAA
CTGAAGACATTTCAGCAATTAATGGCAGGACTTCAGTAATCAGTGGCAGGACTACAACATACATCTCTTCATGCTA
GGGAAACCAGGCTCTCTATTATAAAGCTGACCAGGGCTATTGTTTTCCCTTTTCTCTCATCCTAAACACCATTC
ATATTTTTCTTAGGTCACATTTTAGTGGGATCATTTACAAAGCCCCCAGAACTTAATCATCATGTTTTACCTTTT
TTATTGAATTATATACACCTCTTACAAAAATGCTTGAAGTAATTTAACACCTGTACATCAGTACAAAACCTGGCT

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FIGURE 852B

GAGTAAATGAAGAGAGGATCTATTCAAGATCATTAAAGACCAAATGTAAACTGGGAAGTATGTGGAAGATAGCTG
TCCAGCAAGTGTCTGGAAGGTGTTCTAGCTGGGTAGAGAGCCTATTCTAACAGACACGCACATCGCAGAAAGCAG
CATGAACAGAACCACATCCTAGATAAGAGTTCTGTGTACAGAAGATCCATGGAGGCAAGTGCTGTCAGGAAGGAC
ACTGCCTCCCTCCACCCTCCCAAATGTCACCACCAAGTTCCTTCAGGTGAGACCTCACACAATGTCAAGTGCTTT
CTAGGAAATACTAAGATCAGGTTGAGAGATTCTGCTTGGTCTAGTCAATCTGAAAAATTCAGGCTGGAAAGACAC
CTTTTCTCAAGAGCTGAATTGACTTTTGCCTTCAAATCCTGCCTGCACCTTGCCTACGATGGCATCAATTTACAC
CTAAGGACCTTTGAAGAGAAAAATTCATTATTTCTTTTCTTTCTTGAGAGCAGATTTTTTCCCTCCTCCTTTGG
AAGATTTGCAGTACTTTGCTTCCATCTGAGCCAGAAAATTGTCCATTCCTTTTGCCGATCCTTTTGTCTGCTCT
GTTTGAGAAGTTAAACACAAGCTTTCACAACATTATCCATAGACAGAAAGTACCTAGTGGTTGCCAGGGGCTGG
AAAAGTGGAATAACTACTAATGGGTATGGAGTTTTTTTGGGAATGGTGAAAATGTCCTACAATTGGTGTTAATAAT
TGTAACACTTTGTAAATACACTTAAACACCAAATGTACACTTTAAAAGGACAAATAGAAGGTATGCGGTTAT
GTCTTAAAAAGAGAAAACAAAATACAACATTCCAAAGAAAATATTAGCAGTAGGAATCAGATCATTAAAGATGTG
GCAACAAACTGCCAAGTTTACCTGAATGGCTGCCTTCAGGCTATCCACGCCTTCATCAAGCCCCAACTCCTTTCT
GCTCATTTCTGCTTCTTTGGCCTCTTCCTGAGCCTGAAACAGGAACTCACATGAGACTCAGGGCCACCAGGAAAT
GCTTAAATACATACTCTTTCCCAAAGCAAATCTATAATTCTGTTTCAATTTTATGAATATATGAATAGACAAA
ATGAATCGAATTACATAACTATGTCATTCAATAATGGCAACAATGCTGACAGCAAGCAGTAGATCCTCTGATTC
CAATTACCATTTGTTTTTTACCCAATTCTATTTGCTAGAGGTAGTAAGTACTCTGGCACTCATAAATCACATGAT
GATAAAAAGGAACATGAGGCCGGGTATGGTGGCTCACAACCTGTAATCCCCATACCTTGGGAGGCCAAGGTGGGAG
GATCACTTGAACCTCAGGAGTTCAAGACCTGCCTGGGTAACATAGTGAGACCTCAGTTCTATAAAAAAGAAAAGAA
ATGAGCCTGGTGTGGTGGCATGTGCTTGTAGTCCCAGCTACTAGGGAGGCTGAGGTGGGAAGATGGCTTCAGTCT
GAGAGTTCAGGCTGCAATAAGCTGTGATCATGCCTCTGCACTCCAGCCTGGGTGATGGAGATGCCATCTCTTAGA
AAAAAGAG

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FIGURE 853A

GCGGCGGTGCGGCCAGGCTGCAGCTGAGCGCTCTGCGCGGCGCAGCCGGGTCTCCCGCGTGTACCACGCCGTGA
CAGGTGCAGAGTCCGGGCTGAGGACCCACCTGCAGCCGCCGCCGCGATGCCACCATGCGGAGGACCGTGTGCGGA
GATCCGCTCGCGCGCCGAAGGTTATGAGAAGACAGATGATGTTTCAGAGAAGACCTCACTGGCTGACCAGGAGGA
AGTAAGGACTATTTTCATCAACCAGCCCCAGCTGACAAAATTCTGCAATAACCATGTCAGCACTGCAAAATACAA
CATAATCACATTCTTCCAAGATTTCTCTACTCTCAGTTCAGAAGAGCTGCTAATTCATTTTTCTCTTTATTGCG
ACTGCTGCAGCAAATACCTGATGTGTCACCAACAGGTCGTTATACAACACTGGTTCCTCTCTTATTTATTTTAGC
TGTGGCAGCTATCAAAGAGATAATAGAAGATATTAAACGACATAAAGCTGATAATGCAGTGAACAAGAAACAAAC
GCAAGTTTTGAGAAATGGTGCTTGGGAAATTGTCCACTGGGAAAAGGTGGCAGTAGGGGAGATAGTGAAAGTGAC
CAATGGGGAACATCTCCCAGCAGATCTCATCAGTCTGTCCTCAAGTGAGCCCCAAGCCATGTGCTACATTGAAAC
ATCCAACCTTAGATGGTGAAACAAAATTTGAAAATTAGACAGGGCTTACCAGCAACATCAGATATCAAAGACGTTGA
CAGTTTGATGAGGATTTCTGGCAGAATTGAGTGTGAAAGTCCAAACAGACATCTCTACGATTTTGTGGAAACAT
AAGGCTTGATGGACATGGCACCGTTCCACTGGGAGCAGATCAGATTCTTCTTCGAGGAGCTCAGTTGAGAAATAC
ACAGTGGGTTTCATGGAATAGTTGTCTACACTGGACATGACACCAAGCTGATGCAGAATTCACCAAGTCCACCACT
TAAGCTCTCAAATGTGGAACGGATTACAAATGTACAAATTTTGATTTTATTTTGTATCTTAATTGCCATGTCTCT
TGTCTGTTCTGTGGGCTCAGCCATTTGGAATCGAAGGCATTCTGGAAAAGACTGGTATCTCAATCTAAACTATGG
TGGCGCTAGTAATTTTGGACTGAATTTCTTGACCTTCATCATCTTTTCAACAATCTCATTCCTATCAGCTTATT
GGTTACATTAGAAGTTGTGAAATTTACCCAGGCATACTTCATAAATTGGGATCTTGACATGCACTATGAACCCAC
AGACACTGCTGCTATGGCTCGAACATCTAATCTGAATGAGGAACCTGGCCAGGTTAAATACATATTTTCTGACAA
AACTGGTACTCTGACATGCAATGTAATGCAGTTTAAAGAAGTGCACCATAGCGGGAGTTGCTTATGGCCATGTCCC
TGAACCTGAGGATTATGGCTGCTCTCCTGATGAATGGCAGAACTCACAGTTTGGAGATGAAAAACATTTAGTGA
TTCATCATTGCTGGAAAATCTCCAAAATAATCATCCAACCTGCACCTATAATATATGAATTTCTTACAATGATGGC
AGTCTGTACACAGCAGTGCCAGAGCGAGAAGGTGACAAGATTATTTATCAAGCAGCATCTCCAGATGAGGGAGC
ATTGGTCAGAGCAGCCAAGCAATTGAATTTTGTCTTCACTGGAAGAACACCCGACTCGGTGATTATAGATTCACT
GGGGCAGGAAGAAAGATATGAATTGCTCAATGTCTTGGAGTTTACCAGTGCTAGGAAAAAGATGTCAGTGATTGT
TCGCACTCCATCTGGAAAAGTTACGACTCTACTGCAAAGGAGCTGACACTGTAATTTATGATCGACTGGCAGAGAC
GTCAAAATACAAAGAAATTACCCTAAAACATTTAGAGCAGTTTGTCTACAGAAGGGTTAAGAACTTTATGTTTTGC
TGTGGCTGAGATTTTCAGAGAGCGACTTTTACAGGAGTGGCGAGCAGTCTATCAGCGAGCATCTACATCTGTGCAGAA
CAGGCTACTCAAACCTCGAAGAGAGTTATGAGTTGATTGAAAAGAATCTTCAGCTACTTGGAGCAACAGCCATTGA
GGATAAATTACAAGATCAAGTGCTGAAACCATAGAAACGCTAATGAAAGCAGACATCAAATCTGGATCCTTAC
AGGGGACAAGCAAGAAACTGCCATTAACATCGGACACTCCTGCAAACCTGTTGAAGAAGAACATGGGAATGATTGT
TATAAATGAAGGCTCTCTTGATGGAACAAGGGAACTCTCAGTCGTCAGTGTACTACCCTTGGTGATGCTCTCCG
GAAAGAGAATGATTTTGTCTTATAATTGATGGGAAAACCTCAAATATGCCTTAACCTTGGAGTACGACAGTA
TTTCTTGGACTTAGCTTTGTCTATGCAAAGCTGTCAATTTGCTGTGCGGTTTCTCCTCTTCAAAAATCTGAAGTTGT
TGAGATGGTTAAGAAACAAGTCAAAGTCGTAACGCTTGCAATCGGTGATGGAGCAAATGATGTCAGCATGATACA
GACAGCGCACGTTGGTGTTGGTATCAGTGGCAATGAAGGCCTGCAGGCAGCTAATTCCTCTGACTACTCCATAGC
TCAGTTCAAATATTTGAAGAATTTACTGATGATTATGGTGCCTGGAACATAACAGAGTCTCCAAGTGCATCTT
ATACTGCTTCTACAAGAATATAGTGCTCTATATTATCGAGATCTGGTTTGCCTTTGTTAATGGCTTTTCTGGACA
GATCCTCTTTGAAAGATGGTGTATAGGTCTCTATAACGTGATGTTTACAGCAATGCCTCCTTTAACTCTTGGAA
ATTTGAGAGATCATGCAGAAAAGAGAACATGTTGAAGTACCCTGAATTATACAAAACATCTCAGAATGCCCTGGA
CTTCAACACCAAGGTTTTCTGGGTTTCATTGTTTTAAATGGCCTCTTCCACTCAGTTATTCTGTTTTGGTTTTCCACT
AAAAGCCCTTCAGTATGGTACTGCATTTGGAAATGGGAAAACCTCGGATTATCTGCTACTGGGAACTTTGTGTA
CACTTTTGTGGTGATAACTGTGTGTTTGAAGCTGGATTGGAGACATCATATTGGACATGGTTCAGCCACATAGC
GATATGGGGGAGCATCGCACTCTGGGTGGTGTGTTTTGGGAATCTACTCATCTCTGTGGCCTGCCATTCCGATGGC
CCCTGATATGTCAGGAGAGGCAGCCATGTTGTTTCAGTCTTGGAGTCTTTTGGATGGGCTTGTATTATCCCTGT
GGCATCTCTGCTCCTTGATGTGGTGTAAGGTTATCAAGAGGACTGCTTTTAAAACATTGGTTCGATGAAGTTCA
GGAGCTGGAGGCAAAATCTCAAGACCCAGGAGCAGTTGTACTTGGAAAAGCCTGACCGAGAGGGCGCAACTGCT
CAAGAACGCTTTTAAAGAAGAACCGTGAACCTTGTACCGCTCTGAATCCTTGCAACAAAATCTGCTCCATGGGTA
TGCGTTCTCTCAAGATGAAAATGGAATCGTTTCACAGTCTGAAGTGATAAGAGCATATGATACCACGAAACAGAG

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FIGURE 853B

GCCCCGACGAATGGTGAATGGGGAGAGCCTGAAAGGCAGGCTCTGTTACCTCTCTAAGGAGAGCTACCAGGTTGTCA
CCGCAGTCTGCTAACCAATTCCAGTCTGGTCCATGAAGAGGAAAGGTAGATCTGAGCTCATCTCGCTGATGGACA
TTCAGATTTCATGTATATTATAGACATAAGCACTGTGCAACTGTACTGTAACACCATCTCTTTTGGATTTTTTTAA
GGTATTTGCTAAGTCTTTGTAAACGGAAATTGAAAATGACCTGGTATCTTGCCAGAGGGCTTTCTTAAACGGAGA
ATAAGTCAGTATTCTTATGCCATTACTGTGGGGCTGTAACCTGACTGTCTAGTTTATTGGCTGTACCACAAGGTAAC
CAACCATTAAAAAACTCTAAATGATATTTAGTTAAAGGGACTCTTGGTATCCAGACTTAGATTTTCTAGGATATGCT
GAAACAAACCAGCATTCTTAAGGAACTGACTCACCTTCCTGAGCAAAATTTCTAAACAAGCATTGTGTGCCAAAA
TTGTCTTGATAAATGTTTGCCAAAGAGGTTTCTAGTAAAGTGTCTTTCTAGTTTCTAGTATGCTATGCCAGAAATGTA
AGAGAAAGTTTACTTCCAGTTCCGCTGTAAGATCTGCATGCCTGACTTTCCAAATGTAAGAGTGATTTACAAAA
TGAATATTTTCAAGGCATTTGCTACTAAAATCGGTGATGTTGCACCTTTGGCCTTACAAATGCTTCTTTGTTGTTT
GTCGTGTTTTATTTGTTAGAGGACACACGTGTTAATGTGACTCTGTTGTTATGACACTGATTTTTCAAATATGTA
TGTTTCAGGTATTTCTGATGAAGTTTTCATCATCATTTTAGATTTTTCTAAAAATCTGGCTAATGCAGTAGATTGAG
TGATGTCATTTTGTCTTAAAGTTTTTCTCTTAAAGAAACATATGCTACGTATTTACGTGGGATTTCCAAAGCTTC
TGTTGCAATATTTGGAATAACATGTCAGATAAATGCATGGGCTTTTGTCTGTGTTCCAGTTCCCACTAGAGATG
CCTGTGTCTTGTGTAGCACACCCAGTGTATGGTGACTGCCCCCTATACTGAAGACTGAAAATTATTTACAGTT
CACTCATCAAATAGTTCCCAAAATTCGTCACATGCTGCTTATTGGGACAAATAGGTAGTACATTTTCCCCATTTA
AAAAATGCGGATTTTACTCAGGCCGTAACCTTTACAGTCAGAGGACACGTTTCATCATGAGTAGCTTTTGTAGTA
TGTTTTAAATGTATCTTCAGTTCAATTATTTTTCAGCATTTACAAGACATCTGAAAATGGCTATTTTGTACCAA
CAGTAAATGAAGGGCTGTTTAAAAACCACAACCAGTTTTCTACACTATTTTTTAAATAATACTTTTCAATTTGAAA
AAAAGGAATTAGTTTTTTCAGATACACTTCAGAGATTGAAGCAAACTATTTGCCTTTTACTCAAAGCCTGCTTGCC
TTTACATGGACTTACCAGCAAAATAGGTAGAATTTCTCTTTTAAAAAAAGTCAACTAGAAATTGAGAAGAGGTGA
TTTTTTTTTCAGATCGCTTCTCGAGTTTAAATATTTTTCACATTCTTTTACCCTTTTCTCAATCTAGATTTAAAT
TAGGATATATGTCATTTTCTTGTCTGATTTGTAGCTCCTTAGTTACCAGTATGCCTCTCCATTTTCTACAAATA
AGAGGTTATAACACATATACATAATTCTAACCTTAAAGGGAACACACGTTTACATACTTTACTTCCCAAGCCCTTC
CTGTTTGGGGTACAGATTGAGAGAGTCATGAATCAACACATCTAGCAAGACCACAGGTGTAAGAGTCTAAGATCG
TCTTCAAATTTCTGAAGTCCCAGTCTTTACCTGTCCAGTGAATGAATATTCAGAGCAGCTTTTCTGGGCTTCCC
AGTGGTGATAGCTGAGGTCAAACCACAAAAATAAGAAAGCAAGAGTGAAATGCACCCCTCCAGAGAAACACTTT
GTAGTGTTTAAATCTGTTAATAGAGAAGAGCTGCTTCTGTTTGCCTCCTTTCATCAGTGGCACCCTTCTGCAGA
ATTTTAAATATAAAAAACATTATGGATATAATAGAACTGGATTTTCTGACTTAAAAATGTAAGTTTTATTTTAACT
TGAAACGTGGATTGTTTCTGTGGAGCTCTTAAACATGAGAAGAATACTTACGGTTGATAATGTGTAACATGATCT
GAAATGTGACTAATTGAGCCTCTTTGTCCATCGTCTGTTTTTGAATTATTGACATTGTCTAGTCTCTTTGCTT
CCTGGGTGAGACTTGGGGTTTGGGGACAGGGAATGACCTTCTTGGTGAACTTAAAAATATAACATTGCAATTGC
AGTGACTTTACAGTGTTAAATTAGAGAAAATAGTCTGATTTTTTAAACCTTCCTTAACTGGAAAAAGTCACATG
GTTTTACCAGGATTGAAATAAACAGTCAATGTGACTTTTAAACATGTGTTTTTTGAAATAAAGGGCACGTACTCT
TCAATTAATAAAGTTCTTATAGGGACTCTGGCAAATGCTAACACAGTTGCTTTACAATGTTTACAATTTCAGACAA
TACGACTTATAATAGAAAATCCTCATTCTTATGACTTGAAGAGCTGGAAGTTGCTTCTTAAATGTTGAATAGTA
TACAGTGGTATTGAGCATGGACTTTCTAAATGTTTTATATATACATATAAAAAATATATTGGTGTCTCACACCCAG
AAAGATGTTATATTGTAGATATTATTAGGAAAACAGTGTTTCTCAGGAACGTTGTAAATTTTAAATGATATATGT
ACTTCCCGTCTCCCACTCTGTGCTCTAATGTGAGACTGCTTACAGCAGTGTGCTAAGTTAATGGAAAA
CTTTTTCTAATCAAGTCAGGTGAATGTGATTTCTGCTAAATAATGTTAGCCATTTACATGAATTGTATGGTCATT
AAATGGAATCAGTGATTCTCTTTAATTTCCAGAGGGGAAATGAATTATGGAAATCAGTCAGCATTCTGATCATT
AAATTTTATACTTTAATTTTGGCGTTTACGATTCTAAATATCCAATGTGAAAGTCACATGATAATTTGTTTTGCA
TTGCGTGCACGTGACAACACTTACAACCTTGTCTTTTAAATGTTTTCTCGGGAAATGAATGCTAGTCAGAAAGTA
ATAGATTGTATTATTCATAGTTTTTAAATTTATGACAATGTCATAATTACTACAAAGCTAAATAATCGTGTATT
TTTGTGAGTTGCCCTTTGATAGTTCTTGGTTTTTAAACCTATTAAGTGATAATCTTACAAATAGTCATCTACA
AAATTTATGGAGAAAGTGCCAGCCATTACATCACATGGACCAGGAATCTTTTGTAAATGACTTAAGGTAAC
ATCATGCAGTTTCTGCTAATAAATGCTTTTTTAAATGATGAGCATTCTTATAATGACTCGTAAGATACCATAGTC
TGATTTTTCTCACATTAATAAATACTGAAGTCACTTGTGTAACGTAGTTATACTTTGTCTGATTTTAAATTAACCTT

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FIGURE 853C

CAACAGCTATTAAAGTGGAATGTAAGTTAAATTTTGAAGGAAAGGAAATAAATGTTTTCCATATTTTCGTCTTGAT
 TTACTTTCTGTATGAGAACAGCTGTGTTTTTGATAGGTTTATGGTTTGCATGAGTTCATATTTAAAGTGATCCAG
 GCCAATGCATGGCTATTGCTGTAAATCTTGATGTTTATTTCTGCCTTGTAAGTTCTATCACGGCCTACCTGGAA
 TTTAAAATTCAGTAGACAAATTAATTGGTCCTCTGCACAACTTTTTTAATAAGTAGATTATTTTACAAAGAAATT
 TGAACAAATTTAATTGAATCTTTTGTTTAGCTTGCCCTCTAAGAACTTTTCTTAATAAAGCTCCCCAAACTTCTCA
 GCAAATAAATCTCCCTTAAGTAGGAAAACCTAGATTTTCATATTTGCTTACTTTGAATTAACAGCAACTTTCCACAG
 GTAAATCTGTTCTTGCAAAGATGTGAGCAGAATAGTTAAAAATAATATTTTTATGTTTCATGGTTCTAAATGGAA
 GCCATAAATGCAGTAAATACTATCTGTTGTTTAACTACTTTAATCGTCATTTTTTACATTTTCAAGTTTATTAGG
 TTAAGAAAAACAGGGCAGCCTTGGAAGGCAGCTACTACAGAAAACCTGCAGTTTTGCGTTAAAGATAAAGTAGTAT
 TTTGAGCTCCCTGAAAAACCATTCCTGCTGAACTGCTGTAGAAATTGTGAAGCTGCATGAGTGGAGAGTATTGA
 ATCTGTGGTTATAGTAGTTTTCTCAGGTTTGTATCTTGATGTTTGATGCACTGTGTTTTATAGTTATTAAAAT
 TGAGTAATATTATTTCTATGCAGTGTTATGTGTCATTGGCCTTTTGTGAATGTGCATGTTTTAACTGCAAATTT
 TAAACATTTTGTCTCTAATTGTTATTAAAAATGAAATAAACTTTACCATTACTTAAAAAAA

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FIGURE 854

MPTMRRTVSEIRSRAEGYEKTD DVSEKTS LADQEEVRTIFINQPQLTKFCNNHVSTAKYNIITFLPRFLYSQFRR
AANSFFLFIAL LQQIPDV SPTGRYTTLVPLLFILAVAAIKEI IEDIKRHKADNAV NKKQTQVLRNGAWEIVHWEK
VAVGEIVKVTNGEHL PADLISLSSEPQAMCYIETSNLDGETNLKIRQGLPATSDIKDVDSLMRISGRIECESPN
RHLYDFVGNIRLDGHGTVPLGADQILLRGAQLRNTQVHGIVVYTGHD TKLMQNSTSPPLKLSNVERITNVQILI
LFCILIAMSLVCSVGS AIWNRHSGKD WYLNLYGGASNFG LNFLTFIILFNNLIPISLLVTLEVVKFTQAYFIN
WD LDMHYEPTDTAAMARTSNLNEELGQVKYIFSDKTGTLTCNVMQFKKCTIAGVAYGHVPEPEDYGCSPDEWQNS
QFGDEKTFSDSS LLENLQNNHPTAPIIYEFLTMMAVCHTAVPEREGDKIIYQAASPDEGALVRAAKQLNFVFTGR
TPDSVIIDSLGQEERYEL LNLEFTSARKRMSVIVRTPSGKLRLYCKGADTVIYDRLAETSKYKEITLKHLEQFA
TEGLRTL CFVA AEISESDFQEWRAVYQRASTSVQNRL LKLEESYELIEKNLQLLGATAIEDKLQDQVPETIETLM
KADIKIWILTGDKQETAINIGHSC KLLKNMGMIVINEGSLDGTRETLSRHCTTLGDALRKENDFALIIDGKTLK
YALTFGVRQYFLDLALSCKAVICCRVSP LQKSEVVEMVKKQVKVVT LAIGDGANDVSMIQT AHVGVGISGNEGLQ
AANSSDYSIAQFKYLKNLLMIHGAWNYNRVSKCILYCFYKNIVLYIIEIWFAFVNGFSGQILFERWCIGLYNVMF
TAMPPLTLGIFERSKR ENMLKYPELYKTSQNALDFNTKVFWVHCLNGLFHSVILFWFPLKALQYGTAFNGKTS
DYLLLLGNFVYTFVVIITVCLKAGLETSYWTWFSHIAIWGSIALWVVF LGIYSSSLWPAIPMAPDMSGEAAMLFSSGV
FWMGLLFIPVASLLLDVVYKVIKRTAFKTLVDEVQELEAKSQDPGAVVLGKSLTERAQLLKNVFKKNHVNLYRSE
SLQQNLLHGYAFSQDENGIVSQSEVIRAYDTTKQRPDEW

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FIGURE 855

CGACGCGGGAGCCGCACGCGCCGGACGAGGCTCGCTGCGCTCCCTGTTGCCAGCGCGGGCCCGTTGAGGCGGAG
CCCTCAGTTCCCGGCCAGGACACGGTCTGGGCGCCGAATCTCCGGCCGAAGAGCGGCGGCGGCAGCGGCGGGAA
AAAAATGAAGAATGAAATTGCTGCCGTTGTCTTCTTTTTCACAAGGCTAGTTGCGAAAACATGATAAGTTGAAAAA
AGAGGCAGTTGAGAGGTTTGTGAGAAAATTGACCCTAATACTTCAAGAAAAATATAAAAATCACTGGTATCCAGA
AAAACCATCGAAAGGACAGGCCCTACAGATGTATTGCTGTCAATAAAATTTGAGAGAGTTGATCCTGATGTCCTGAA
AGCCTGTGAAAACAGCTGCATCTTGTATAGTGACCTGGGCTTGCCAAAAGGAGCTCACTCTCTGGGTGGACCCATG
TGAGGTGTGCTGTGCTAGAGATGGGGTTTTACCAGTGTGGCCAGACTGCTCTCAAACCTCTGACCTCGTGATCCG
CCCGCCTTGGCCTCCCAAAGCGCTGGATTACAGGCGTGAGCCACTGCGCCCGGCCTCCTCCTTTTTTGATTATGTA
TGGAGAGAAAAACAATGCATTCATTGTTGCCAGCTTTGAAAATAAAGATGAGAACAAGGATGAGATCTCCAGGAA
AGTTACCAGGGCCCTTGATAAGGTTACCTCTGATTATCATTGAGGATCCTCTTCTTCAGATGAAGAAACAAGTAA
GGAAATGGAAGTGAAACCCAGTTCGGTGACTGCAGCCGCAAGTCCTGTGTACCAGATTTGAGAACTTATATTTCC
ACCTCTTCCAATGTGGCACCCCTTTGCCCAGAAAAAAGCCAGGAATGTATCGAGGGAATGGCCATCAGAATCACTA
TCCTCCTCCTGTTCCATTTGGTTATCCAAATCAGGGAAGAAAAAATAAACCATATCGCCCAATTCCAGTGACATG
GGTACCTCCTCCTGGAATGCATTGTGACCGGAATCACTGGATTAATCCTCACATGTTAGCACCTCACTTAACTTCG
TTTTTGATTGTGTTGGTGTGATGTTGAGAAAAAGGTAGAATAAACCTTACTACACATTTAAAGTTAAAGTTCTT
ACTAATAGTAGTGAAGTTAGATGGGCCAAACCATCAAACCTATTTTTATAGAAGTTATTGAGAATAATCTTTCTT
AAAAAATATATGCACCTTTAGATATTGATATAGTTTGAGAAATTTTATTAAAGTTAGTCAAGTGCCTAAGTTTTTA
ATATTGGACTTGAGTATTTATATATTGTGCATCAACTCTGTTGGATACGAGAACCCTGTAGAAGTGGACGATTTG
TTTTAGCCCTTTGAGAATTTACTTTATGGAGCGTATGTAAGTTATTTATATACAAGGAAATCTATTTTATGTGCG
TTGTTTAAGAGAATTGTGTGAAATCATGTAGTTGCAATAAAAAATAGTTTGAGGCAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAA

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FIGURE 856

MKNEIAAVVFFTRLVRKHDKLKKEAVERFAEKLTLILQEKYKNHWPEKPSKGQAYRCIRVNKFQRVDPDLKA
CENSILYSDLGLPKELTLWVDPCEVCCRRDGVSPCWPDCSQTPDLVIRPPWPPKALDYRREPLRPASSFLIMYG
EKNNAFIVASFENKDENKDEISRKVTRALDKVTSDYHSGSSSSDEETSKEMEVKPSSVTAAASPVYQISELIFPP
LPMWHPLPRKKPGMYRGNGHQNHYPFPVFGYPNQGRKNKPYRPIPVTWVFPFGMHCDRNHWINPHMLAPH

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FIGURE 857

AATTTGGGGCCAAGATTAACACCCCTCCTGCAGGAGGAAGACAGCCACCAGCGGCTGCTCATGGGGCTGATGGTG
TCTGAGCTAAAAGACCATTTTTTGTAGACACCTACAGGGTGTAGAAAAGAAGAAAATTGAACAGATGGTTCTGGAC
TACATTTCAAAACTGCTGGATCTCATTTGCCACATCGTAGAAACCAATTGGAGGAAACATAATCTTCATTCTCTGG
GTTCTCCACTTCAATAGTCGTGGCAGTGTCTGCTGAATTTGCAGTTTTTTCACATCATGACCAGGATTCTGGAAGCT
ACAAACAGTTTGTTTTTACCTCTGCCTCCTGGTTTTTCATACTCTGCACACCATCCTCGGGGTCCAGTGTCTCCCT
TTGCATAACCTGCTGCATTGCATTGACAGTGGAGTGTGTGCTTCTCACTGAAACAGCTGTCATAAGGCTCATGAAA
GATCTGGATAATACAGAGAAAAATGAAAACTGAAATTCAGTATCATTGTGCGGCTTCCTCCGCTTATTGGGCAG
AAGATTTGTAGACTTTGGGATCATCCTATGAGTTCTAACATCATTTCGCGGAACCACGTGACGCGACTGCTTCAG
AACTATAAGAAACAGCCTCGGAATTCTATGATTAACAAGTCATCGTTCAGTGTAGAATTTCTGCCTCTGAACTAC
TTCATTGAAATTCTGACAGATATAGAGTCCTCCAATCAAGCCCTGTATCCTTTTGAAGGACATGACAATGTGGAT
GCAGAATTTGTAGAGGAAGCAGCTCTGAAACACACCGCGATGCTTTTAGGCTTATGAAAAAGAAAACGCAATTGG
ATCTGCTGCTGCCATTTTAATCTTGCTCATTAACTTACTCCTCTGAGAATTCTTTAACAATATTTAAAATTGGT
AACAAAAATAGTTTAGCCATAATTGTTTAGCCATGTGAGTTTCAGGTTGGTACACGTTTCAGACAGAACTGCTGTA
TCACATTCCAATTTTGAATAGCCAGTGAGCAATCAAGTGTAGAGAAATGATAAATGGCCTAAGAAGGCATACAGT
GGCATAAACGATGCTCTTCCTAGTAGCTTAATAGGCCACAAGCTAGTTTCTGTTGCACTCTGAAATAAAATATGC
TTTAAAAATGTAGGGAACAGTGCTTAGAAAAGCAAAAAGCTAGGTGTGTCATTGAAATAATAGGCATAAAAAATTAA
ATGTTACATAAGAACACTATTTGGAAAGAGGGTCCTTTTAAAAACTGAATTTGTAATAATCAGATTTGCCATGT
CCCAGTCCAGAATAATTTGTACTTAGTATTTGCAGCAGGGTTTGTCTTTGTGAATTCAGATGAAACATATTTATT
TTTTTTTATTTATAAAAGGTTGATTTAGGAATATTTTGTGAGTCATTAAAAACCTGAAAACATAAAAAAAAAA
AAAAAAA

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FIGURE 858

NLGPRLTPLLQEEDSHQRLLMGLMVSELKDHFLRHLQGVEKKKIEQMVDYISKLLDLICHIVETNWRKHNLSW
VLHFNSRGSAAEFVAFHIMTRILEATNSLFLPLPPGFHTLHTILGVQCLPLHNLLHCIDSGVLLLTETAVIRLMK
DLDNTEKNEKLKFSIIVRLPPLIGQKICRLWDHPMSSNII SRNHVTRLLQNYKKQPRNSMINKSSFSVEFLPLNY
FIEILTDIESSNQALYPFEGHDNVDAEFVEEAALKHTAMLLGL

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FIGURE 859A

GGCCGCGAGTGCATCTTCCACGAACCTAATTCATCTCTCCAGCAAAGGACACATCTCTCCAGCAAAGGACACCTC
TCTCCAGCAAAGGACACCTGCAGAGATGTCCCCAGTCCTTCACTTCTATGTTTCGTCCCTCTGGCCATGAGGGGGC
AGCCTCTGGACACACTCGGAGGAACTGCAAGGGAACTGCCAGAGCTGCAGGGCGTCGAGACTGAACTGTGCTA
CAACGTGAACTGGACAGCTGAGGCCCTCCCCAGTGCTGAGGAGACAAAGAAGCTGATGTGGCTGTTTGGTTGCC
CTTACTGCTGGATGATGTTGCTCGGGAGTCCTGGCTCCTTCCTGGCTCCAATGACCTGCTGCTGGAGGTCGGGCC
CAGGCTGAACTTCTCCACCCCAACATCCACCAACATCGTGTCTAGTGTGCCGCGCCACTGGGCTGGGGCCTGTGGA
TCGTGTGGAGACCACCCGGCGCTACCGGCTCTCGTTTGCCCCACCCCGTCAGCTGAGGTGGAAGCCATTGCTCT
GGCTACCCTGCACGACCGGATGACAGAGCAGCACTTCCCCCATCCCATCCAGAGTTTCTCCCTGAGAGCATGCC
GGAACCCCTCAATGGCCCTATCAATATACTGGGTGAGGGCCGGCTTGCGCTGGAGAAGGCCAACCAGGAGCTTGG
TCTGGCTTTAGACTCTTGGGACCTAGACTTCTACACCAAGCGCTTCCAGGAGCTACAGCGGAACCCGAGCACTGT
GGAGGCCTTTGACTTGGCGCAGTCCAATAGCGAGCACAGCCGACACTGGTTCCTCAAGGGCCAGCTCCACGTGGA
TGGGCAGAAGCTGGTGCACCTACTGTTTGAGTCCATCATGAGCACCCAGGAATCCTCGAACCCCAACAACGTCTT
CAAATTCTGTGATAACAGCAGTGCAATCCAGGGAAAGGAAGTCCGATTCTACGGCCTGAGGACCCACACGGCC
AAGCCGCTTCCAGCAACAGCAAGGGCTGAGACATGTTGTCTTACAGCAGAGACTCACAACTTTCACAGGAGT
ATGCCCTTTAGTGGTGCAACCACTGGCACAGGGGGCCGGATTTCGAGATGTCCAGTGCACAGGCCGCGGGGCCA
CGTGGTGGCTGGCACTGCCGGCTATTGCTTTGGAATCTGCATATTCCAGGTTACAATCTGCCCTGGGAGGATCT
AAGCTTCCAGTATCCTGGGAATTTTGCCCGGCCCTGGAGGTTGCCATTGAAGCCAGTAATGGAGCTTCTGACTA
TGGCAACAAGTTTGGGGAACCACTGCTGGCTGGCTTCGCCGCTCCTTGGGCCTCCAGCTCCAGACGGCCAGCG
GCGTGAGTGGATCAAGCCCATCATGTTTAGTGGGGCATTGGGTCCATGGAAGCTGACCACATAAGCAAGGAGGC
CCCAGAGCCAGGCATGGAAGTTGTAAAGGTTGGAGGTCCCGTCTACAGGATTGGAGTTGGAGGTGGAGCTGCTTC
ATCTGTGCAGGTGCAGGGAGATAACACCAGTGACCTGGACTTTGGGGCTGTGCAGCGAGGAGACCCGGAGATGGA
ACAGAAGATGAACCGTGTGATCAGGGCTTGTGTGGAGGCCCCCAAGGGAAACCCCATCTGCAGCCTTCATGATCA
GGGCGCTGGTGGCAATGGCAATGTCTAAAAGAGCTGAGTGACCCAGCTGGAGCCATCATTTACACCAGCCGCTT
CCAGCTTGGGGACCCAAACCTGAATGCCCTGGAAATCTGGGGGGCTGAGTACCAGGAATCAAATGCTCTTCTGCT
GAGGTCCCCCAACCGGGAATTCCTGACTCATGTCTAGTGCCCGTGAACGTTGCCCGGCTTGCTTCGTGGGCACCAT
CACTGGAGACCGGAGAATAGTGCTGGTGGACGATCGGGAGTGCTCTGTGTCAGAAGAAATGGCCAGGGGGATGCCCC
CCCGACACCCCGCCAACCCCTGTGGACCTGGAGCTCGAATGGGTGCTGGGCAAGATGCCTCGGAAGGAGTTCTT
CCTGCAGAGGAAGCCCCCATGCTGCAGCCTCTGGCCTTGCCCCAGGGCTGAGCGTGACACAGGCTCTGGAGAG
GGTTCTGAGGCTGCCCCGCCGTGGCCAGCAAGCGCTACCTACCAATAAGGTGGACCGCTCCGTGGGAGGCCTGGT
GGCCAGCAGCAGTGCGTGGGGCCCTGCAAACTCCTCTGGCAGATGTAGCGGTTGTGGCACTGAGCCATGAGGA
GCTCATAGGGGCTGCCACAGCCTTGGGAGAACAGCCAGTCAAGAGCCTGCTGGACCCAAAAGTCGCCGCCCGCT
GGCGTGGCCGAAGCCCTACCAACCTGGTGTGTTGCTCTGGTCACTGACCTCCGGGATGTGAAGTGTAGCGGGA
CTGGATGTGGGCAGCCAAGCTCCAGGGGAGGGCGCAGCTTTGGCGGATGCCTGTGAGGCTATGGTGGCAGTGAT
GGCAGCCCTGGGTGTGGCAGTGATGGTGGCAAGGACTCCCTCAGCATGGCTGCTCGGGTTGGCACTGAGACCGT
GCGGGCTCCTGGGTCACTGGTCATCTCAGCCTATGCCGTCTGCCAGACATCACAGCCACTGTGACCCAGACCT
CAAGCATCCTGAAGGGAGAGGCCATCTGCTCTATGTGGCTCTGAGCCCTGGGCAGCACCGGCTCGGGGGCACAGC
TCTGGCCAGTGCTTCTCCAGCTTGGGGAACACCTCCAGACCTGGACCTTCTGAGAACTTGGTGGCGGCCTT
CAGCATCACTCAGGGGCTGCTGAAAGACCGCCTCCTCTGCTCAGGCCACGATGTCAGTGACGGAGGCCTCGTCAC
ATGCCTGCTGGAGATGGCCTTGTGGAATTTGCGGGCTACAGGTGGATGTGCCTGTCCCCAGGGTTGATGTCTT
GTCTGTGCTGTTTCGCTGAGGAGCCAGGCCTCGTGTGGAGGTGCAGGAGCCAGACCTGGCCAGGTGCTGAAGCG
TTACCGGGATGCTGGCCTCCATTGCCCTGGAGCTGGGCCACACAGGCGAGGCCGGGGCCCCACGCCATGGTCCGGGT
GTCAGTGAACGGGGCTGTGGTTCTGGAGGAGCCTGTTGGGGAGCTGCGAGCCCTCTGGGAGGAGACGATTTCCA
GCTGGACCGGCTACAGGCAGAGCCTCGCTGTGTGGCAGAGGAGGAACGGGGCTGAGGGAGCGGATGGGGCCAG
CTATTGCCTGCCCCCACCTTTCCCAAAGCCTCCGTGCCCCGTGAGCCTGGTGGTCCCAGCCCCGAGTCGCCAT
CTTGCGAGAGGAGGGCAGTAATGGAGACCGGGAGATGGCCGATGCCTTCCACTTAGCTGGGTTTGAGGTATGGGA
CGTGACCATGCAGGACCTCTGCTCTGGGGCAATTGGGCTGGACACTTTCCGTGGCGTGGCCTTCGTGGGCGGCTT
CAGCTATGCAGATGTCTGGGCTCTGCCAAAGGGTGGGCAGCTGCTGTGACCTTTCATCCCAGGGCTGGGGCTGA
GCTGAGGCGCTTCCGGAAGCGGCCAGACACCTTCAGCCTGGGCGTGTGTAATGGCTGTCAACTGCTGGCTCTGCT

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FIGURE 859B

CGGCTGGGTGGGAGGCGACCCCAATGAGGATGCTGCAGAGATGGGCCCTGACTCCCAGCCAGCCCGGCCAGGCCT
TCTGCTACGCCACAACCTGTCTGGGCGCTACGAGTCTCGCTGGGCCAGCGTGCGTGTGGGGCCTGGGCCAGCCCT
GATGCTGCGAGGGATGGAGGGCGCCGTGCTGCCCGTGTGGAGTGCACGCGGGAAGGTTACGTAGCATTTCCTTC
TCCGGAACCTCCAAGCTCAGATTGAGGCCAGGGGCTTGGCTCCACTGCACTGGGCTGATGATGACGGGAACCCAC
AGAGCAGTACCCCTCTGAATCCCAATGGGTCCCCAGGGGGCGTGGCTGGCATCTGCTCCTGTGATGGCCGCCACCT
GGCTGTCTATGCCCTCACCCTGAGCGGGCCGTTAGGCCTTGGCAGTGGGCATGGCGACCCCTCCATTGATACTCT
GACCACCTCCCCCTGGCTCCAGCTCTCTATCAATGCCCCGAACTGGACCCTGGAAGGGAGCTGCTTGACTTGGCCAC
AGGGGCTCACCTGGGCCCCATGGCTTTTACCTAAGTGGGTCTGCCCCCTCCCCCATGACCTTCAGGAGCACCC
CATATTATTTCCAAAAATATCTTGGACAGACAAGGACCAAAATGCCAAAATCTCAGCGGACTCGATGATCTGCCT
GCTGATGTTCTTCTGTGGCTGTGTCTATTTTTCAGTTCTGCTCTAACATGGCATGCCCTTTCTCAGCCCAGGAAA
CAGCATGTGGTTCAGAGAAAAGAGCGACAAGGAAAAGTTAGGACTCCTGAGGTCCGAACAGGGGCTTCTGTTGCC
CACTTCACAACACCCAGTGATCACCGGTGTGCAATTGCCCTCCTTGGCTCTGAGGGATGTTTTGCGCTCCCTTTTC
TCATCATTGGGGTTAGCGGGTGCAGACAAATTCAGCAATAGTATGCAGATCAGCCCCCTCACACCTCATTGTTCT
CATCTGGAACCTGAAACCTTCTGGATTCTCTTGAAGTGCTACACTGCACTGAATGTAAGGAATTGTTGCTTGTGG
AAGTTTCTCAGCGTTTCTGGCTGTCTTAGGGCTGGCCTCAGAACCCAGCATTCTGTTATTTGCTTCTAAATTAG
CAGCTCTCTTTTTTTTTTTTTTTTTTTGAGGCAGTCTCACTCTGTCAACCAGGCTGGAGTGCAGTGGCGTGATCTCG
GCCCCACTGCAACCTCTGCCTCCTGGGTTCAAGCAATTTCTGCTCAGCCTCCCGAGTAGCTGGGAGTACAGGC
ACACACCACCACACCCAGCTAATTTTTGTATTTTTAGTAGAGATAGGGTTTACCCTGTCTCCCAGGCTGGTCTC
AAACTCCTAACCTCAAGTGATTGCCTGCCTCGGCCTCCCAAAGTGCTGGGATTACAGGTGGGAGCCACTACAGC
TGGCCCAGCAGCTCTGTTTCTGATAGAGGTGGTTGGGGCTCTCATCCCTAGATCCTAACCTTTTAGTATGCTGGA
ATTCTACTCTTCACTTACTGCATTGACTGTTGTTGATTAGTTATTATTGCAAAGCACTGCCACCGGCCTCAGGGA
GTTTATGTGTAATAGAATTAATAATAATAGCTGTGTATAACACTTAGCTCAAGCCACGCATGTGTGAGGCATTG
GTATGTATCTGAATTAATTCTCACTAAAATTCAGCAAAGGACTTGATAGCCTCTCCCCGCCTTTTCAATAAAGGA
TGAATGAAGGTTG

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FIGURE 860

AASASSTNLIHLSSKGHISPAKDTSLQQRTPAEMSPVLHFYVRPSGHEGAASGHTRRKLOQKLPQLQGVETELCY
 NVNWTAEALPSAEETKKLMWLFGCPLLLDDVARES WLLPGSNDLLLEVGPRLNFSTPTSTNIVSVCRATGLGPVD
 RVETTRRYRLSFAHPPSAEVEAIALATLHDMTEQHFPHP IQSFSPESMPEPLNGP INILGEGRLALEKANQELG
 LALDSWDLDFYTKRFQELQRNPSTVEAFDLAQSNSEHSRHWFFKQQLHVDGQKLVHSLFESIMSTQESSNPNNVL
 KFCDNSSAIQGEKVRFLRPEDPTRPSRFQQQQLRHVVFTAEETHNFPTGVCFFSGATTGTGGRI RDVQCTGRGAH
 VVAGTAGYCFGNLHIPGYNLPWEDLSFQYPGNFARPLEVAIEASNGASDYGKNGFGEPLVLAGFARSLGLQLPDGQR
 REWIKPIMFSGGIGSMEADHISKEAPEPGMEVVKVGGPVYRIGVGGGAASSVQVQGDNTSDLDGAVQRGDPEME
 QKMNVRVIRACVEAPKGNPICSLHDQAGGNGNVLKELSDPAGAI IYTSRFQLGDPTLNALEIWGAEYQESNALLL
 RSPNRDFLTHVSARERCPACFVGTITGDRRIVLVDDRECPVRRNGQGDAPPTPPPTPVDLELEWVLGKMPRKEFF
 LQRKPPMLQPLALPPGLSVHQALERVRLRLPAVASKRYLTNKVDRSVGGGLVAQQQCVGPLQTPPLADVAVVALSHEE
 LIGAATALGEQPVKSLLDPKVAARLAVAEALTNLVFALVTDLRDVKCSGNMMWAAKLPGEAALADACEAMVAVM
 AALGVAVDGGKDSLMAARVGTETVRAPGSLVISAYAVCPDITATVTPDLKHPEGRGHLLYVALSPGQHRLLGGTA
 LAQCFSQLGEHPPDLDPENLVRAFSITQGLLKDRLLCSGHDVSDGGLVTCLEMAFAGNCGLQVDVPVPRVDVL
 SVLFAEEPGLVLEVQEPDLAQVLKRYRDAGLHCLLELGHTEAGPHAMVRVSVNGAVVLEEPVGELRALWEETSFQ
 LDRLQAEPRCVAEEERGLRERMGPSYCLPPTFPKASVPREPGGSPRVAILREEGSNGDREMADAFHLAGFEVWD
 VTMQDLCSGAIGLDTRFGVAFVGGFSYADVLGSAKGWAAAVTFHPRAGAE LRFRKRPDTFSLGVCNGCQLLALL
 GWVGGDPNEDAAEMGPDSQPARPGLLL RHNLSGRYESRWASVRVGPGPALMLRGMEGAVLPVWSAHGEGYVAFSS
 PELQAQIEARGLAPLHWADDDGNPTEQYPLNPNGSPGGVAGICSCDGRHLAVMHPERAVRPQWAWRPPPFDTL
 TTSPWLQLSINARNWTLEGSC

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FIGURE 861A

CTGCGGCCGCTGGTTTTCTTGCCTTAAGGAGCCCATTCGCTTTCCCGCTGAAGTCTAGATGTTGACATGTAATAA
AGCGGGCAGCAGGATGGTGGTGGATGCGGCCAACTCCAATGGGCTTTCCAGCCCGTGGTCCTTCTCCATATTCG
AGATGTTTCTCTGCTGATCAAGAGAAGCTTTTTATCCAGAAGTTACGTCAGTGTTGCGTCCTCTTTGACTTTGT
TTCTGATCCACTAAGTGACCTAAAGTGGAAGGAAGTAAACGAGCTGCTTTAAGTGAATGGTAGAATATATCAC
CCATAATCGGAATGTGATCACAGAGCCTATTTACCCAGAAGTAGTCCATATGTTTGAGTTAACATGTTTCGAAC
ATTACCACCTTCTCCAATCCTACGGGAGCGGAATTTGACCCGGAGGAAGATGAACCAACGTTAGAAGCAGCCTG
GCCTCATCTACAGCTTGTTTATGAATTTTTCTTAAGATTTTATAGAGTCTCCAGATTTCCAACCTAATATAGCGAA
GAAATATATTGATCAGAAGTTTGTATTGCAGCTTTTAGAGCTCTTTGACAGTGAAGATCCTCGGGAGAGAGATTT
TCTTAAACCACCTTCACAGAATCTATGGGAAATTCCTAGGCTTGAGAGCTTACATCAGAAAACAGATAAATAA
TATATTTTATAGGTTTATTTATGAAACAGAGCATCATAATGGCATAGCAGAGTTACTGGAAATATTGGGAAGTAT
AATTAATGGATTTGCCTTACCCTAAAAGAAGAGCACAAGATTTTCTTATTGAAGGTGTTACTACCTTTGCACAA
AGTGAAATCTCTGAGTGTCTACCATCCCCAGCTGGCATACTGTGTAGTGCAGTTTTTAGAAAAGGACAGCACCTT
CACGGAACCAAGTGGTGATGGCACTTCTCAAATACTGGCCAAAGACTCACAGTCCAAAAGAAGTAATGTTCTTAA
CGAATTAGAAGAGATTTTAGATGTCAATTGAACCATCAGAATTTGTGAAGATCATGGAACCCCTCTTCCGGCAGTT
GGCCAAATGTGTCTCCAGCCCACACTTCCAGGTGGCAGAGCGAGCTCTCTATTACTGGAATAATGAATACATCAT
GAGTTTAATCAGTGACAACGCAGCGAAGATTCTGCCCATCATGTTTCCCTTCCCTGTACCGCAACTCAAAGACCCA
TTGGAACAAGACAATACATGGCTTGATATACAACGCCCTGAAGCTCTTCATGGAGATGAACCAAAAGCTATTTGA
TGACTGTACACAACAGTTCAAAGCAGAGAACTAAAAGAGAAGCTAAAAATGAAAGAACGGGAAGAAGCATGGGT
TAAAATAGAAAATCTAGCCAAAGCCAATCCCCAGTACACAGTGTATAGTCAAGCCAGCACCATGAGCATTCCGGT
TGCAATGGAGACAGATGGGCCTTTATTTGAAGATGTGCAGATGCTGAGAAAGACAGTGAAGGACGAGGCTCATCA
GGCACAGAAAGATCCGAAGAAGGACCGTCTCTTGCACTCCGCAAGTCCGAGCTGCCTCAGGACCCCCACACCAA
GAAAGCCTTGGAAGCTCACTGCAGGGCCGATGAGCTGGCCTCCAGGACGGCCGCTAGCCTCCGGGGCGCCGCGT
CGGGGCCGGGCCCGCCAGTTCTTTTCCGGATTCTGTAGAAAATACATACTTCTGTGCCATACCAATCAGTTACA
CTCAAAGCTTTCTTGACCCCGTTCCGTAGGCAATAACGTGCGTCCGCCTCAGCGCGAGATTAGGAGTTCAAACA
ATGGTGACTTCCAGAGCCCGCTGGCAGAGCCGCGGGTTGACGACGGTGTCTCGCAGTGTGCGCGCCACCCAG
CGTAGTCCAAGTCAGACTATTTACAAAAGTCAGAGCGATAGGAAAGCACCCCTGCCCTTCATCTTCATGTTCTCCC
AAATGGAACCTTAGGATCTTTTAAACATAGGTGGTTCTGTGATAACATCAGTGTTTTCCAAATCAAAGGAACGCTTT
AAAAAATAGGACCTATTTTTTAAAGACTTTACAGCCTTTGAAATGGTTTCCACGTGATTGTTACGCCAGCAGTTCT
TTTGTTTGTTTTTCAATCTCAGTGAAATGGCTCTTTGCTTTTCGAGTTCTCACGCAACGTACTGGGCAAATGACAA
TCCCTCAGCCGCTGGTATTTTCTAAGGGGTCTCTTCACTTTGATGAGTGACATGAACACCGTGTCTCCTTCTCTTG
TGTGTACCTAAAGCCATATTTCCAAGTCTGTGGTACTCCAGGATTCCAGGAGTAAGCCTGTAGAAGAGATTTATT
TTAAAGAGATTGCTCTGAAATTTATCTTAAAGAGCTTGCTCTGTCTACCTTGACAGAAATTGGAGTTTTAAAA
TTATGTGTTAATATTTTATTGAGATTTTCGTTTCCGTCAACTTAAACATTTGTTGCCCTTCAACAAGGCTCTTG
AATTAATAAAATTATAGTCTCTAAGAATTCCACATTTTATGGAAGTTAGAGCAAAATCATTTTGAGTTAAGCCA
GTTCTTAGCCTAATGCAAACTGCAGCGCCTTTAAGCATAAAGTAACACAACAGCATTGCACGGGGCCGGCACTGC
CGCTGCCTTCACTGAAGGCTGCAGTGTCTGTTCTGAGAGCTTGAGGAGGCACCAGCGAGGATGACGTTTAGTGGA
GCTCTTTCTGTTGAAAAGAGCTCACGTTATCAACACCTTGTAAGGAAAAATACAGTGTCTGAGTTTTCATCGGTCT
TCACATGCTGTATATATTCCACAGAGTTCCTTGATGTACTGAGCTTTTGTGTTTAGATGGAATAGCACAAAGGAG
AAAAATCTTTAACTTAGTGCTTTGTCTATTCTTTATTTCTCTCAGGGTGGCCAGTATTTTGACTTATTTATCCT
GCTTGAAAGCTACTTGAGATGTGTACTGCTATTCTAAACACGTGATCTAGTTTCTTTTCATCTCTGGCATAAGATT
ATATAACTTAATGTTAAGTGCTTGAGGCATAAAAGACAAAATGTGGCTTATTTTAGGATCTGTTTTTTCATCGA
GGTCTCGGGTATCCTTTCAAAGATAGTGAGAAGCAGACACTGCTCCTTGTCAGCTCTGGTACCTCCTGCCCACT
GCTGTCACTTCAAGCCACTGGCAATGCTTCTGTCTCGTGTCTTGAGGAAAAATCACCTGGGGGGAGGGGACTTC
TTGTGGTAAGAGCAAGTGCAAGTATGAAATGCGAAGATTGCCCCAGCTAAAAGTGGAACAAGTCCGCTTTGTGAGA
TGAATACTTCTGAGAACTTGACAAGTATCTCTCCATTTTACCATTATGAAAATATCATTTAAAAAAACAGTT
TAGATGCCTTCTCCTTTTGGAGGAAAAAGGGTGCTTTTTATTGTATAAAGCAGCGTCTTATGTATTTTGATATAC
CATTGTTTGAACCTCCGTCTTTAGCTGATAGATTCTCAAATATCCTTGATTTTGGATGTTTCTGATGTTTGTGAG
AGAGGTTTCTGGGAAGACTCTCTTTTTGCCCTCGGGAAAAAGCAAAATATCAATGTTTGGGTGACTGTGTAAAGC

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FIGURE 861B

TCAGTGTGTAAGAACATCTTTTTGTCTAGGTTTTCTTTCTGCTCTTTATTGAAGACAAACACTCACCAAAAAGAA
AAATAAAAGTTTTTCAGAGAACTAATTTTCTTTGGCAAGAGTATTACTTAATATTTTGGCCTCCTAAAGTTTCCC
TAGTTAGTACTCGGACTCCTGTGCTAATTGTCAGCTTACATATCATTGTATAGAGACTGTTTATTCTGTACCAA
CTGATTTCAAAGTACTACATTGAAAATAAACCGGTGACTGTTTTCTTCATAAAGTTCTGCGTTTGGCATCTTC
ACTCTTTCCAAAATGTATCTGTACATCAGAAATGTCACTATTCCAAGTGTCTTTTAGTGTGGCCTTTAGTATGG
CTTCCTTTTAATATTGTACATACATTGTATCTTTGTTTTATGGTAATAAGTAATAAAAATGTAGACTTCAAAAA
AAAAGCGGCCCGCAG

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FIGURE 862

MVVDAANSNGPFQPVLLHIRDVPPADQEKLFIQKLRQCCVLFDFVSDPLSDLKWKEVKRAALSEMVEYITHNRN
VITEPIYPEVVHMFVNMFRTLPPSSNPTGAEFDPDEDEPTLEAAWPHLQLVYEFFLRFLESPDFQPNIAKKYID
QKFVLQLELFDSEDPRERDFLKTTLHRIYGKFLGLRAYIRKQINNIFYRFIYETEHNGIAELLEILGSIINGF
ALPLKEEHKIFLLKVLLPLHKVKSLSVYHPQLAYCVVQFLEKDSTLTPVVMALLKYWPKTHSPKEVMFLNELEE
ILDVIEPSEFVKIMEPLFRQLAKCVSSPHFQVAERALYYWNNNEYIMSLISDNAAKILPIMFPSLYRNSKTHWNKT
IHGLIYNALKLFMEMNQKLFDDCTQQFKAEKLEKLEKMKEREEAWVKIENLAKANPQYTVYSQASTMSIPVAMET
DGPLFEDVQMLRKTVMKDEAHQAQKDPKKDRPLALRKSELPQDPHTKKALEAHCRADELASQDGR

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FIGURE 863

TTAATGGTAGGAATTTGTATTTTTTGCCTTTGTTTCAGAATACATGACATTGGTAAATATGCCACATGCCTTTGGT
GGAAGTACAACCTGTTGTTATTACTCTATAACAAGTATGAGATCAGGGTTAGGAAAAAAGACAAAGAGGTGATGAC
AGACACACAGTGGAACCCACATCGTCTCATGGCAAACCGAAGAACGGGATGTGGGAAGCTCAGCTTCATTGGA
CTGCAAAGTCCCAGGGTTTTGTTGCACATTTGCTCATGCACATGGGTGGTGGGAGGAAAGGGGGATAGCAGAGAC
ACACAGAAGAGGGTACAGGGTGGGTGAGAAAGAAAGTAGAAGGGCTAATACCCCCAAAGAACAAGGCCAACTACA
CCTGGTGAGCCTCAGAGGGACAGAAACCCAGGAATGATTCCT

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FIGURE 864A

CGAATTCCCCCTCCCCTCCCCATAACATGCCCACTGCCCAAATAAAAAAAAAACCAACTATGGGAGAGCAGCC
GAGACAGCAACTAGGGGCAGGGGAAAAGAGACATGGAACCTGAGGGCAGCGGTGAAGAGACCATGCGTGTGCTGGG
AGGGCCAGAGGCAGCGGGCGGCACAAACAGCGCAGGTACGAGTCTCTGTGTCTTCCCCGGGGTTATGTATAAATA
TAGAGAGATGAGGCCTTCTCTCCCCTGCTCTCCCTTCCGCTCCGTGCTGCTCGCCGCGGTCCCAGCTCCTCTTTC
CACATGAGGGCGAAGGGAAGGGGGGATGAACAAGTCATCACGAATTGCAATCAGACCCACATCCATCAGCTTCT
GGATCTTCTGTGCTATTACAGGATTCCTTAAGTGTTCGCTGAGTGCCTGCTCCTGGGGACAATTCCTTTTTCCTT
TCTTCAGCCTAACCCGCGGTGGCCCTCGCGGAGTCCGGTCAGCCCCGGGGAGCGCAACCCGGGAGGGGCGTCCAA
GGGGCGTCTCGCGTCTGGGAACGGCCGGGCCCCCAGCGGGCTGTGGTTCGCGGGGTGGGGGCCGGAGCGGCGAGGC
CCCCCTTACCGGGCTGCGCAGGCCGCCAGGGCCCCCGGGCTGAGACGGGGCCGGAGCGGCGCCCCGGCCGCCCG
CGCGGGGTCTCCCCCATGGTGCAGCGGGGTTCGGG**ATGT**CGAAGACGCTGAAGAAGAAGAAGCACTGGCTCAGCA
AGGTGCAGGAGTGCGCCGTGCTCTGGGCCGGGCCCCCGGGCGACTTCGGCGCGGAGATCCGCGGTGGCGCGGAGC
GTGGCGAATTCCCCTACCTGGGGCGGCTCCGCGAAGAACCCGGCGGGGGCACCTGCTGCATCGTCTCGGGCAAGG
CGCCCAACCCAAGCGATGTGCTGCTGGAGGTAAACGGGACGCCTGTGACGGGGCTCACCAACCGGGACACCCTGG
CTGTCTATCCGCCACTTCCGCGAGCCCATCCGTCTCAAGACTGTGAAACCAGGCAAAGTCATTAATAAAGATTTCG
GGCATTACCTAAGTCTTCAGTTTCAAAAAGGATCAATTGACCACAAACTGCAGCAAGTGATCAGAGATAATCTCT
ACTTGAGAACCATTCCATGCACTACAAGGGCCCCCAGGGATGGAGAAGTACCAGGAGTGGATTATAATTTCAATTT
CCGTTGAACAGTTCAAAGCACTGGAGGAGAGTGGAGCATTGTTAGAAAGTGGGACATATGATGGAACTTCTATG
GAACTCCCAAGCCTCCAGCAGAACCCAGCCCTTTTCAGCCAGATCCAGTTGATCAAGTCCTCTTTGATAATGAGT
TTGATGCAGAATCTCAAAGAAAACGAACGACATCTGTGACGAAGATGGAAAGAATGGATAGCTCTCTTCCTGAAG
AGGAAGAAGATGAGGACAAGGGAGCTATTAATGGCAGTGGAAACGCAGAAAACAGAGAGAGGCATTCTGAGTCAT
CTGACTGGATGAAGACTGTTCCAAGTTACAACCAAAACAAATAGCTCCATGGACTTTAGAAATTATATGATGAGAG
ATGAGACTCTGGAACCACTGCCCAAAAACCTGGGAAATGGCCTACACTGACACAGGGATGATCTACTTCATTGACC
ACAATACCAAGACAACCACTTGGTTGGATCCTCGTCTTTGTAAAGAAAGCCAAAGCCCCTGAAGACTGTGAAGATG
GAGAGCTTCTTATGGCTGGGAGAAAATAGAGGACCCTCAGTATGGGACATACTATGTTGATTTCACTCTTGTCG
CCCAAGCTGGAGTGCAATGGCATGATCTCGGCTCACTGCAACCTCCGCCTCCTGGGTTCAATCACCTTAACCAGA
AAACCCAGTTTGAAAAATCCAGTGGAGGAAGCCAAAAGGAAAAAGCAGTTAGGACAGGTTGAAATTGGGTCTTCAA
AACCAGATATGGAAAAATCACACTTCACAAGAGATCCATCCAGCTTAAAGGTGTCTTGTTCGAGCATCACTGA
AAAAAGCACAAATGGGATTTGGTTTTACTATTATTGGTGGAGATAGACCTGATGAGTTTCTACAAGTGAAAAATG
TGCTGAAAGATGGTCCCGCAGCTCAGGATGGGAAAATTGCACCAGGCGATGTTATTGTAGACATCAATGGCAACT
GTGTCTTCGGTCACACTCATGCAGATGTTGTCCAGATGTTTCAATTGGTACCTGTCAATCAGTATGTAAACCTCA
CTTTATGTCGTGGTTATCCACTTCTGATGACAGTGAAGATCCTGTTGTGGACATTGTTGCTGCTACCCCTGTCA
TCAATGGACAGTCATTAACCAAGGGAGAGACTTGCATGAATCCTCAGGATTTTAAGCCAGGAGCAATGGTTCTGG
AGCAGAATGGAAAAATCGGGACACACTTCGACTGGTGATGGTCTCAATGGACCATCAGATGCAAGTGAGCAGAGAG
TATCCATGGCATCGTCAGGCAGCTCCCAGCCTGAACTAGTGACTATCCCTTTGATTAAGGGCCCTAAAGGGTTTG
GGTTTGCAATTGCTGACAGCCCTACTGGACAGAAGGTGAAAATGATACTGGATAGTCAGTGGTGTCAAGGCCTTC
AGAAAGAAGATATAATTAAGGAAATATACCATCAAAATGTGCAGAATTTAACACATCTCCAAGTGGTAGAGGTGC
TAAAGCAGTTTCCAGTAGGTGCTGATGTACCATTTGCTTATCTTAAGAGGAGGTCTCTCTCAACAACCAAACTG
CCAAAATGAAAACAGATAAAAAGGAAAATGCAGGAAGTTTGGAGGCCATAAATGAGCCTATTCTCAGCCTATGC
CTTTTCCACCGAGCATTATCAGGTGAGGATCCCCAAAATTGGATCCTTCTGAGGTCTACCTGAAATCTAAGACTT
TATATGAAGATAAACCACCAAAACACCAAGATTTGGATGTTTTTCTTCGAAAACAAGAGTCAGGGTTTGGCTTCA
GGGTGCTAGGAGGAGATGGACCTGACCAGTCTATATATATTGGGGCTATTATTCCTTGGGAGCAGCTGAGAAAG
ATGGTTCGGCTCCGCGCAGCTGATGAACTAATGTGCATTGATGGAATTCCTGTTAAAGGGAAATCACACAAACAAG
TCTTGACCTCATGACAACTGCTGCTCGAAATGGCCATGTGTTACTAACTGTGACACGGAAGATCTTCTATGGAG
AAAAACAACCCGAGGACGACAGCTCTCAGGCCTTCATTTCAACACAGAATGGATCTCCCCGCCTGAACCGGGCAG
AGGTCCAGCCAGGCCTGCACCCAGGAGCCCTATGATGTTGTCTTGCAACGAAAAGAAAATGAAGGATTTGGCT
TTGTCTATCCTCACCTCCAAAAACAAACCACCTCCAGGAGTTATTCCTCATAAAATTGGCCGAGTCATAGAAGGAA
GTCCGGCTGACCGCTGTGGAAAACCTGAAAGTTGGAGATCATATCTCTGCAGTGAATGGGCAGTCCATTGTTGAAC
TGTCTCATGCTAACATTGTTTCACTGATCAAGATGCTGGTGTACCGTCACACTAACGGTCATTGCTGAAGAAG

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FIGURE 864B

AGCATCATGGTCCACCATCAGGAACAACTCAGCCAGGCAAAGCCCAGCCCTGCAGCACAGGCCCATGGGACAGT
CACAGGCCAACACATACCTGGGGACAGAAGTGCCCTAGAAGGTGAAATTGGAAAAGATGTCTCCACTTCTTACA
GACATTCTTGGTCAGACCACAAGCACCTTGACAGCCTGACACCGCAGTAATTTAGTTGTAGGCAGTCGGCACA
ATCAGAACCTTGGTTGTTATCCAGTAGAGCTGGAGAGAGGCCCCGGGGCTTTGGATTGAGCCTCCGAGGGGGGA
AGGAGTACAACATGGGGCTGTTTCATCCTTCGTCTTGCTGAAGATGGTCCTGCCATCAAAGATGGCAGAATTCATG
TTGGTGACCAAATTGTTGAAATCAATGGGGAACCTACACAAGGAATCACACATACTCGAGCAATTGAGCTCATT
AGGCTGGTGGAAATAAAGTTCTTCTTTTGAGGCCAGGAACTGGCTTGATACCTGACCATGGTTTGGCTCCTT
CCGGTCTGTGCTCCTACGTGAAACCCGAGCAACATTAAGGCTTTCAGGGCTTTTCTTGGTCTTTCCTTAAAAAGA
CTTGGTAAATTTGCATGTCTTGTAATCACTTTCTTTTGTCTTTTAAATTAAAAATGATGCTATTAAAT
AAAAAAAAAAAAA

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FIGURE 865

MSKTLKKKKHWLSKVQECASWAGPPGDFGAEIRGGAERGEFPYLGRRLREPPGGGTCCIVSGKAPNP SDVLL EVN
GTPVSGLTNRD TLAVIRHFREPIRLKTVKPGKVINKDLRHYLSLQFQKGSIDHKLQQVIRDNLYLRTIPCTTRAP
RDGEVPGVDYNFISVEQFKALEESGALLES GTYDGNFYGTPKPPAEPSPFQPD PVDQVLF DNEFDAESQRKR TTS
VSKMERMDSSLPEEEEEDEDKGAINGSGNAENRERHSESSDWMKTVP SYNQTNSSMDFRNYMMRDETLEPLPKNWE
MAYTDTGMIYFIDHNTKTTT WLDPR LCKKAKAPEDCEDGELPYGWEKIEDPQYGTYYVDFTLVAQAGVQW HDLGS
LQPPPPGFNHLNQKTQFENPV EEA KRKKQLGQVEIGSSKPDMEKSHFTRDPSQLKGV LVRASLKKSTMGF GTII
GGDRPDEF LQVKNVLKDGPA AQDGKIAPGDVIVDINGNCVFGH THADVVMFQLVPVNQYVNLTL CRGYPLPDDS
EDPVVDIVAATPVINGQSLTKGETCMNPQDFKPGAMVLEQNGKSGHTSTGDGLNGPSDASEQRVSMASGSSQPE
LVTIPLIKGPKGFGFAIAD SPTGQKVKMILDSQWCQGLQKEDIKEIYHQNVQNLTHLQVVEVLKQFPVGADVPL
LILRGPPSTTKTAKMKTDK KENAGSLEAINEPI PQMPFPFPIIRSGSPKLPSEVYLKSKTLYEDKPPNTKDL
DVFLRKQESGFGFRVLGGD GPDQSIYIGAI IPLGAAEKDGRLRAADELMCIDGIPVKGKSHKQVLDLMTTAARNG
HVLLTVRRKIFYGEKQPEDDSSQAFISTQNGSPRLNRAEVPARPA PQEPYDVVLQRKENEGFGFVILTSKNKPPP
GVIPHKIGRVIEGSPADRCGKLKVG DHI SAVNGQSIVELSHANIVQLIKDAGVTVTLTVIAEEHHGPPSGTNSA
RQSPALQHRPMGQS QANHIPGDRSALEGEIGKDVSTSYRHSWSDHKHLAQPD TAVISVVGSRHNQNLGCYPVELE
RGPRGFGFSLRGGKEYNMGLFILRLAEDGPAIKDGRIHVGDQIVEINGEPTQGITHTRAIELIQAGGNKVLLLLR
PGTGLIPDHGLAPSGLC SYVKPEQH

FIGURE 866

FIGURE 866

CCCTTCCGTCCTTTCATTATGACGCTTTGCTCTTGCTCTTAGATGCTCAGATGGTAGTGGAATAGGCCCTGTGACGAAGGCT
GCTACCATCGTGAGAGTAAGATTATATTCTCCTGCCTTTTAAAAAGATGGACTTCAGCAGAAATCTTTATGATAT
TGGGGAACAACCTGGACAGTGAAGATCTGGCCTCCCTCAAGTTTCTGAGCCTGGACTACATTCCGCAAAGGAAGCA
AGAACCCATCAAGGATGCCTTGATGTTATTCCAGAGACTCCAGGAAAAGAGAATGTTGGAGGAAAGCAATCTGTCT
CTTCTGAAAGGAGCTGCTCTTCCGAATTAATAGACTGGATTGTGCTGATTACCTACCTAAACACTAGAAAGGAGGA
GATGGAAAGGGAACCTTCAGACACCAGGCAGGGCTCAAATTTCTGCCTACAGGGTTCATGCTCTATCAGATTTTCAGA
AGAAGTGAGCAGATCAGAATTGAGGTCTTTTAAGTTTCTTTTGCAAGAGGAAATCTCCAAATGCAAACCTGGATGA
TGACATGAACCTGCTGGATATTTTCATAGAGATGGAGAAGAGGGTTCATCTGGGAGAAGGAAAGTTGGACATCCT
GAAAAGAGTCTGTGCCCAAATCAACAAGAGCCTGCTGAAGATAATCAACGACTATGAAGAATTTCAGCAAAGGGGA
GGAGTTGTGTGGGGTAATGACAATCTCGGACTCTCCAAGAGAACAGGATAGTGAATCACAGACTTTGGACAAAGT
TTACCAAATGAAAAGCAAACCTCGGGGATACTGTCTGATCATCAACAATCACAATTTTGCAAAAGCACGGGAGAA
AGTGCCCAAACCTTCACAGCATTAGGGACAGGAATGGAACACACTTGGATGCAGGGGCTTTGACCACGACCTTTGA
AGAGCTTCATTTTGAGATCAAGCCCCACGATGACTGCACAGTAGAGCAAATCTATGAGATTTTGAAAAATCTACCA
ACTCATGGACCACAGTAACATGGACTGCTTCATCTGCTGTATCCTCTCCCATGGAGACAAGGGCATCATCTATGG
CACTGATGGACAGGAGGCCCCCATCTATGAGCTGACATCTCAGTTCACTGGTTTGAAGTGCCCTTCCCTTGCTGG
AAAACCCAAAGTGTTTTTTATTACAGGCTTGCTCAGGGGGATAACTACCAGAAAGGTATACCTGTTGAGACTGATTCT
AGAGGAGCAACCCTATTTAGAAATGGATTATCATCACCTCAAACGAGATATATCCCGGATGAGGCTGACTTTCT
GCTGGGGATGGCCACTGTGAATAACTGTGTTTCTACCGAAACCCTGCAGAGGGAACCTGGTACATCCAGTCACCT
TTGCCAGAGCCTGAGAGAGCGATGTCTCGAGGCGATGATATTCTCACCATCCTGACTGAAGTGAACATATGAAGT
AAGCAACAAGGATGACAAGAAAAACATGGGGAAACAGATGCCTCAGCCTACTTTCACACTAAGAAAAAAACTTGT
CTTCCCTTCTGATTGATGGTGTCTATTTTGTTTGTTTGTTTGTTTGTTTGTTTTTGAGACAGAATCTCGCTCTGT
CGCCCAGGCTGGAGTGCAGTGGCGTGATCTCGGCTCACCGCAAGCTCCGCCTCCCGGGTTACAGCCATTCTCCTG
CCTCAGCCTCCCGAGTAGCTGGGACTACAGGGGGCCCGCCACCACACCTGGCTAATTTTTTAAAAATATTTTTAGT
AGAGACAGGGTTTCACTGTGTTAGCCAGGGTGGTCTTGATCTCCTGACCTCGTGATCCACCCACCTCGGCCTCCC
AAAGTGCTGGGATTACAGGCGTGAGCCACCGCGCCTGGCCGATGGTACTATTTAGATATAACACTATGTTTATTT
ACTAATTTTCTAGATTTTCTACTTTATTAATTGTTTTGCACTTTTTTATAAGAGCTAAAGTTAAATAGGATATTA
ACAACAATAACACTGTCTCCTTTCTCTTAAGCTTAAGGCTTTGGGAATGTTTTTAGCTGGTGGCAATAAATACCA
GACACGTACAAAATCCAGCTATGAATATAGAGGGCTTATGATTGAGATTGTTATCTATCAACTATAAGCCCACTG
TTAATATTCTATTAACCTTTAATTTCTTTTCAAAGCTAAATTCACACTACCACATTAAAAAAATTAGAAAGTAGC
CACGTATGGTGGCTCATGTCTATAATCCCAGCACTTTGGGAGGTTGAGGTGGGAGGATTGTCTGAACCCAAGAG
GTCCAAGGCTGCAGTGAGCCATGTTACACCGCTGCACCTCAAGCTTGGGTGACAGAGCAAGACCCCGTCCCCAA
AAAATTTTTTTTTTAAATAAAACAAAATTTGTTTGAAATCTTTTAAAAATTCAAATGATTTTTTACAAGTTTTTAAAT
AAGCTCTCCCCAAACTTGCTTTATGCCTTCTTATTGCTTTTATGATATATATATGCTTGGCTAACTATATTTGCT
TTTTGCTAACAAATGCTCTGGGGTCTTTTTATGCATTGCAATTGCTCTTTCATCTCTGCTTGGATTATTTTTAAAT
CATTAGGAATTAAGTTATCTTTAAATTTAAGTATCTTTTTTCCAAACATTTTTTAAATAGAAATAAAATATAATT
TGATCTTAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 867

MDFSRNLYDIGEQLDSEDLASLKFLSLDYIPQRKQEPKDALMLFQRLQEKRMLEESNLSFLKELLFRINRLDLL
ITYLNTRKEEMERELQTPGRAQISAYRVMLYQISEEVSRSELRSFKFLLQEEISKCKLDDDMNLLDIFIEMEKRV
ILGEGKLDILKRVCAQINKSLLKIINDYEEFSKERSSSLEGSPDEFSNDFGQSLPNEKQTSGILSDHQQSQFCKS
TGESAQTSQH

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FIGURE 868

AAGCTAAATAAATATAGCTTTATTTCATCTTTCAGAGATTGCCATTTAGCCTAGAAAATTACATCAAAGATGAAC
TGATTTTGTCTTGAAAAAGTCAACCATGTTTAATTGCTCACACAATTTTAATTACAACAGATGTAATTTCTAATA
TATACCATTTCGATCACACACCATTTTTATGTTCTGGAGTGAGACCTGGGAGTATTTTGCTTAAGACTTTCTCATT
CTCTAAACTAGCTTTGGCAGTTAACAATGTGGAGAATTCAGCACAAAAAGCACCCTAGCCCAGCCTTTTATTT
TATTTTTTAAATCTCTATTTAACCTTCAAAGTTTCCTTTGCAGCCATATGCATTTCTAGGTGGCTCTACCTGT
AGAAGGCTGCACCTTCCAAGCGGCGAGGGACTTTAATTCTCACTTXCCACCCTCC

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FIGURE 869

GGCACGAGGGAGGTCTGCATGAAGGGGATCCCCTACATCGCAGCCTACCAGAAGGAACTGGCTCATTCCCAGCCG
GCGGTGCAGCCCCGGCTCAAGCTGCTCCTGATGGGGCATAAAGCTGCAGGAAAGACTTTGCTGCGCCACTGCCTC
ACCGAGGAGAGAGTGGAGGGATGCCAGGAGGAGGGGACAAGGAGAAGTGCTACCCACCGTCACCTCCCCCTGTG
AGCAAGGGCATCGAGGTGACCAGCTGGACGGCCGATGCCTCCCGGGGCCTGCGGTTTCATCGTGTATGACTTAGCT
GGGGATGAAAGTTATGAGGTGATCCAGCCCTTCTTCTGTCCCCAGGGGGCCCTATACGTGCTGGTGGTCAACTTG
GCCACCTATGAGCCTCGCCACTTTCCTACCACCGTGGGCTCCTTCTTGCATCGGGTCGGGGCGAGAGTGCCCCAC
GCGGTGGTGTGCATCGTGGGCACCCACGCAGACCTGTGCGGAGAGCGTGAGCTGGAGGAGAAATGTCTGGACATT
CACCGCCAGATCGCCCTGCAGGAGAAGCACGACGCGGAGGGACTGAGCCGCTTGGCCAAGGTGGTGGACGAGGCA
CTGGCCCCGGGACTTCGAGCTGCGCTCTGCCAGCCCCCACGCAGCCTACTATGGCGTTTCGGACAAGAACCTTCGA
CGGCGCAAGGCCCATTTTCAATACCTGCTCAACCACCGGCTGCAGATCCTCTCCCCCGTGTTCCTGTTAGCTGC
AGGGACCCGCGCCACTTACGACGCCTTCGGGACAAGTTGCTGTGTCAGTTGCTGAGCACCGAGAGATCTTCCCCAAC
TTACACAGAGTACTGCCTCGATCCTGGCAGGTGCTGGAGGAACTGCATTTCCAGCCACCTCAGGCCAGCGACTG
TGGCTAAGCTGGTGGGACTCGGCGCGCTTGGGCCTGCAGGCGGGTCTGACCGAGGACCGACTGCAGAGTGCCCTC
TCCTACCTGCATGAGAGCGGCAAGCTACTCTACTTTGAGGACAGTCCGGCTCTCAAGGAGCACGTCTTCCACAAC
CTCACCCGCCTCATCGACATCCTCAATGTCTTCTTCCAGAGGGATCCCTCTTTGCTGCTGCATAAGCTGCTCCTA
GGGACCAGTGGAGAGGGCAAGGCGGAGGGGAAAGCTCCCCGCCATGGCGCGGTCCACCCCCAGCCAGGAAGTGC
CTCCGGGCCACCCAGCTCCATCAGTATGTGGAGGGCTTCTGTTGCATGGGCTCTTGCCAGCTCATGTCAATTCGG
TTGCTGCTTAAGCCTCATGTCCAGGCCAGCAGGACTTGACAGCTGTTGCTGGAGCTGCTGGAGAAGATGGGACTC
TGTTACTGCCTCAATAAACCCAAAGGGCAAGCCTTTGAATGGGTCCACAGCTTGGTACAAGTTCCCATGCTATGTG
CAGAACGAGGTGCCCCATGCAGAAGCCTGGATTAATGGGACCAACCTAGCTGGGCAGTCTTTTGTGGCTGAGCAG
TTGCAGATTGAATATAGCTTTCCTTTTACTTTTCCACCTGGGTGTTTGCACGCTACAGTGTCCAGATCAACAGC
CATGTGGTGCACAGGTGCGATGGTAAATTTAGATCTTTGCCTATAGAGGGAAAGTTCTGTGGTTGTGAGTTAC
AGACCTGCCAGGGGAGTCTGCAGCCAGACACCCTGTCCATTGCTAGCCATGCATCATTACCAAATATATGGACC
GCATGGCAAGCCATAACCCCTTGGTGGAGGAACTGAATGTCTTACTTCAGGAATGGCCTGGACTGCACTACACC
GTGCACATTCTCTGTTCTAAGTGCCTTAAGAGAGGATCGCCCAATCCACATGCTTTTCCAGGGGAGTTGCTGAGT
CAGCCCAGACCGGAAGGAGTGGCAGAGATCATTGCCCCAAGAACGGCAGCGAGCGAGTAAATGTTGCCTTGGTT
TACCCACCCACGCCGACTGTGATCAGCCCCTGTTCCAAGAAGAATGTTGGTGAAAAGCACAGAAACCAGTGACGT
TTGTGGCTGTGGAATTTCCATGGAGAAAAGAGAGCATCTGAACACCTGGACCATCTTTTGCACCTGGCAGACCTT
CTGCACTCACCCAGCGTGTCTGTGAACTTGAGTGACAACGCGTGCTTGAGGGTGCTTTTTGGATGACTGGGG
AAGAGGTGGGGAGGGGTGGTGGGGGAAGCATGGACGAGAACATGGAGCAAATGTTTTACAACCTGAACCTCAG
AACTGTGATCCTCCAAGGAGCGCGCTACTTGAAGAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 870

ATGCGGGAGATCGTGCACATCCAGGCCGGCCAGTGCGGCAACCAGATCGGGGCCAAGTTCTGGGAAGTCATCAGT
GATGAGCATGGCATCGACCCCAGCGGCAACTACGTGGGCGACTCGGACTTGCAGCTGGAGCGGATCAGCGTCTAC
TACAACGAGGCCTCTTCTCACAAGTACGTGCCTCGAGCCATTCTGGTGGACCTGGAACCCGGAACCATGGACAGT
GTCCGCTCAGGGGCCTTTGGACATCTCTTCAGGCCTGACAATTTTCATCTTTGGTCAGAGTGGGGCCGGCAACAAC
TGGGCCAAGGGTCACTACACGGAGGGGGCGGAGCTGGTGGATTTCGGTCCTGGATGTGGTGCAGGAAGGAGTGTGAA
AACTGCGACTGCCTGCAGGGCTTCCAGCTGACCCACTCGCTGGGGGGGGGACGGGCTCCGGCATGGGCACGTTG
CTCATCAGCAAGGTGCGTGAGGAGTATCCCGACCGCATCATGAACACCTTCAGCGTCGTGCCCTCACCCAAGGTG
TCAGACACGGTGGTGGAAACCTACAACGCCACGCTGTCCATCCACCAGCTGGTGGAAAACACGGATGAAACCTAC
TGCATCGACAACGAGGCGCTCTACGACATCTGCTTCCGCACCCCTCAAGCTGGCCACGCCCACCTACGGGGACCTC
AACCACCTGGTATCGGCCACCATGAGCGGAGTCACCACCTCCTTGCGCTTCCCGGGCCAGCTCAACGCTGACCTG
CGCAAGCTGGCCGTCAACATGGTGCCCTTCCCGCGCCTGCACTTCTTCATGCCCGGCTTCGCCCCCTCACCAGG
CGGGGCAGCCAGCAGTACCGGGCCCTGACCGTGCCGAGCTCACCCAGCAGATGTTTCGATGCCAAGAACATGATG
GCCGCTGCGACCCGCGCCACGGCCGCTACCTGACGGTGGCCACCGTGTTCCGGGGCCGCATGTCCATGAAGGAG
GTGGACGAGCAGATGCTGGCCATCCAGAGCAAGAACAGCAGCTACTTCGTGGAGTGGATCCCCAACAACGTGAAG
GTGGCCGTGTGTGACATCCCGCCCCGCGGCCTCAAGATGTCTCCACCTTCATCGGGAACAGCACGGCCATCCAG
GAGCTGTTCAAGCGCATCTCCGAGCAGTTACAGGCCATGTTCCGGCGCAAGGCCTTCCTGCACTGGTACACGGGC
GAGGGCATGGACGAGATGGAGTTCACCGAGGCCGAGAGCAACATGAACGACCTGGTGTCCGAGTACCAGCAGTAC
CAGGACGCCACGGCCGAGGAAGAGGGCGAGATGTACGAAGACGACGAGGAGGAGTCGGAGGCCAGGGCCCCAAG
TGAAACTGCTCGCAGCTGGAGTGAGAGGCAGGTGGCGGCCGGGGCCGAAGCCAGCAGTGTCTAAACCCCCGGAGC
CATCTTGCTGCCGACACCCTGCTTTCCCCATCGCCCTAGGGCTCCCTTGCCGCCCTCCTGCAGTATTTATGGCCT
CGTCCTCCCCACCTAGGCCACGTGTGAGCTGCTCCTGTCTGTCTTATTGCAGCTCCAGGCCTGACGTTTTAC
GGTTTTGTTTTTTACTGGTTTGTGTTTATATTTTCGGGGATACTTAATAAATCTATTGCTGTCAGATACCCTT

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FIGURE 871

MREIVHIQAGQCGNQIGAKFWEVISDEHGIDPSGNYVGDSDLQLERISVYYNEASSHKYVPRAILVDLEPGTMDS
VRSGAFGHLFRPDNFI FGQSGAGNNWAKGHYTEGAELVDSVLDVVRKECENCDCLOQGFQLTHSLGGGTGSGMGTL
LISKVREEYPDRIMNTFSVVPSPKVSDTVVEPYNATLSIHQLVENTDETYCIDNEALYDICFRTLKLATPTYGDL
NHLVSATMSGVTTS LRFPQQLNADLRKLAVNMVFPRLHFFMPGFAPLTRRGSQQYRALTVPELTQQMFDAKNMM
AACDPRHGRYLT VATVFRGRMSMKEVDEQMLAIQSKNSSYFVEWIPNNVKVAVCDIPPRGLKMSSTFIGNSTAIQ
ELFKRISEQFTAMFRRKAF LHWYTGEGMDEMEFTEAESNMNDLVSEYQQYQDATAEEEGEMYEDDEEESEAQGPK

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FIGURE 872

ACGCCCTATACAACCTTGGCTTCACATACTTTTACACTAACTTTATATGATTTTTAAAACTGGTCTGATCGGACT
TCTCGTCTCTGGGACACTGTTTACTGGAGTCTGGCCGGCTCTCCGTGCTCCTCTTGGTACCTCATTTTGGGGAGAA
CCTTAAACCCACTCGAGCAGATAATCTCCGCCTTGACCGGTGCCACCAAAGAAGGGTTGGAACCATGTGGACTTT
TCTGGGCATTGCCACTTTCACCTATTTTTATAAGAAGTTCGGGGACTTCATCACTTTGGCCAACAGGGAGGTCCT
GTTGTGCGTGCTGGTGTTCCTCTCGCTGGGCCTGGTGCTCTCCTACCGCTGTGCGCACCGAAACGGGGGTCTCCT
CGGGCGCCAGCGGAGCGGCTCCAGTTCGCCCTCTTCTCGGATATTCTCTCAGGCCTGCCTTTCATTGGCTTCTT
CTGGGCCAAATCCCCCCTGAATCAGAAAATAAGGAGCAGCTCGGGGCCAGGAGGCGCAGAAAAGGAACCAATAT
TTCAGAAACAAGCTTAATAGGAACAGCTGCCTGTACATCAACATCTTCTCAGAATGACCCAGAAGTTATCATCGT
GGGAGCTGGCGTGCTTGGCTCTGCTTTGGTAGCTGTGCTTTCCAGAGATGGAAGAAAGGTGACAGTCATTGAGAG
AGACTTAAAGAGCCTGACAGAATAGTTGGAGAATTCTGTCAGCCGGGTGGTTATCATGTTCTCAAAGACCTTGG
TCTTGGAGATACAGTGGAAGGTCTTGATGCCCAGGTTGTAAATGGTTACATGATTTCATGATCAGGAAAGCAAATC
AGAGGTTTCAGATTCCCTTACCCTCTGTGCAAAAACAATCAAGTGCAGAGTGGAAGAGCTTTCCATCACGGAAGATT
CATCATGAGTCTCCGGAAAGCAGCTATGGCAGAGCCCAATGCAAAGTTTATTGAAGGTGTTGTGTTACAGTTATT
AGAGGAAGATGATGTTGTGATGGGAGTTTCAGTACAAGGATAAAGAGACTGGAGATATCAAGGAACCTCCATGCTCC
ACTGACTGTTGTTGCAGATGGGCTTTTTCTCCAAGTTCAGGAAAAGCCTGGTCTCCAATAAAGTTTCTGTATCATC
TCATTTTGTGGCTTTCTTATGAAGAATGCACCACAGTTTAAAGCAAATCATGCTGAACCTATTTTAGCTAACCC
GAGTCCAGTTCTCATCTACCGGATTTTCATCCAGTGAACTCGAGTACTTGTGACATTAGAGGAGAAATGCCAAG
GAATTTAAGAGAATACATGGTTGAAAAAATTTACCCACAAATACCTGATCACCTGAAAGAACCATTCTTAGAAGC
CACTGACAATTCTCATCTGAGGTCCATGCTAGCAAGCTTCCTTCCTCCTTCATCAGTGAAGAAACGAGGTGTTCT
TCTTTTGGGAGACGCATATAATATGAGGCATCCACTTACTGGTGGAGGAATGACTGTTGCTTTTAAAGATATAAA
ACTATGGAGAAAACCTGCTAAAGGGTATCCCTGACCTTTATGATGATGCAGCTATTTTCGAGGCCAACAAATCATT
TTACTGGGCAAGAAAAACATCTCATTCCCTTGTGCTGAATATCCTTGCTCAGGCTCTTTATGAATTATTTCTGC
CACAGATGATTCCCTGCATCAACTAAGAAAAGCCTGTTTTCTTTATTTCAAACCTGGTGGCGAATGTGTTGCGGG
TCCTGTTGGGCTGCTTTCGTATTGTCTCCTAACCTCTAGCTTTAATTGGACACTTCTTTGCTGTTGCAATCTA
TGCCGTGTATTTTGTCTTAACTCAGAACCTTGATTACAAAACCTCGAGCCCTTCTCAGTAGTAGTGCTGTATT
GTACAAAGCGTGTTCTGTAATATTTCTCTAATTTACTCAGAAATGAAGTATATGGTTTCATTAAGCTTAAAGGGG
AACCATTTGTGAATGAATATTTGGAACCTTACCAAGTCCTAAGAGACTTTTGGAAGAGGATATATATAGCATAGTA
CCATACCACCTTATAAAGTGGAACCTCTTGACCAAGATTTGGATTAATTTGTTTTGAAGTTTTTGTATATAAA
TATGTAAATACATGCTTTAATTTGCAATTTAAAATGAAGGGTTAAATAAGTTAGACATTTGAAAGAAATGATTG
TTACCATAAATTAGTGCTAATGCTGAGGAGAACTACAGTTTTTCTTTTGAATTTAGTATTTGAGATGAGTTGTTG
GGACATGCAAATAAAATGAAGAATGAC

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FIGURE 873

MWTF LGIATFTYFYKKFGDFITLANREVLLCVLVFLSLGLVLSYRCRHRNGLLGRQRSGSQFALFSDILSGLPF
IGFFWAKSPPESENKEQLGARRRRKGTNISETSLIGTAACTSTSSQNDPEVIIVGAGVLGSALVAVLSRDGRKVT
VIERDLKEPDRIVGEFLQPGGYHVLKDLGLGDTVEGLDAQVVNGYMIHDQESKSEVQIPYPLSENNQVQSGRAFH
HGRFIMSLRKAAMAEPNAKFIEGVVLQLEEDDVVMGVQYKDKETGDIKELHAPLTVVADGLFSKFRKSLVSNKV
SVSSHVVGFLMKNAPQFKANHAELILANPSPVLIYRISSETRVLVDIRGEMPRNLREYMVEKIYPQIPDHLKEP
FLEATDNSHLRSM LASFLPPSSVKKRGVLLLGDAYNMRHPLTGGGMTVAFKDIKLWRKLLKGIPDLYDDAAIFEA
NKSFYWARKTSHSFVVNLAQALYELFSATDDSLHQLRKACFLYFKLGGEVAGPVGLLSVLSPNPLALIGHFFA
VAIYAVYFCFKSEPWITKPRALLSSSAVLYKACSVIFPLIYSEM KYMVH

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FIGURE 874

GGCGCCATTTTGCTGGAGCCTGCGACCGAGTGGGAGTGGAGTGGAGCGGCTGTGGTTGCCGACTCTTCTCTTC
CCCACGGTCCAGTCAGCGGGTTAATTAGGCCATCGGCCCTCGAGCCGAGACTTGTCTCTTATTTAGTTCTGGGA
GCGCCTCGTCGACATGAGTGTGAGGAAAACAACCTTCGAGGGCAGAGTGAGTACAAAGCCGCGGGAGCCGTC
TAGGCGGCGGCCAATGCTCGGGTTTACGGAACAAGCGCGGTCGGGCGGGGTTGCGGGTAGTCCCAGGAGGA
GCAACCTCTGGAGCCATCGCGATTGATTCCCTCCCATCCCAAGATGGCTTCTGGGTTCCTTCCCTCCCAACAC
CACGGATAACACCCCTCCCTTTTTTGGAGGCTGACTGATACCTGGACTTCTGGGTCTCTTCCCTCCCGCCC
CCGCAATTGCTTCTTCCCTTCTCCCCACCCCTGAGGCTTCTTATGTCTGCTCCGAGGTGTGGGTCCCGTCCGCG
TTGGGCGGGAGGAGGCGGCAGGGAGCTCCCTCCGTCCGGATAGTGGTAGGTGCTTCTGCGGTGGCATTCTG
CGACCCCGAGCATCGTAGAGGGTCTCGGGATCGAAAGTGC GCGGGGCTGCTTCCGGGCGGGGAGAAGCTGGCGT
GGGACTAGCTGGGGCCTGTGTCTCTTGGCTCTCTATTTAGTGAGCGGCCGCGTCTCTGTGGAACGGCGGCG
TTGCGTCTAAAAAGGCGAAAGCCTTGAGGTTGAAGGTGGGACGAGCCTAATGAAGTGGTTAGTCAACGACCGCAC
CGACCCCTTAAGCGTTCTTAAGACGAGAGCTGTGAGGGGAAACTACGCAAGGAGCCCTTTTCCCTTAATGTCCCTT
CGACTTTCTTTCACTTCGAAATGAATGTGGAATGCTGTACGCCTTATTTTTCTAATTCCTCGATGTTGGGTT
TTTTCTCTTCTTTATATCTCACTTTTAATGCTCTTCTTCTTATGACCTTTTCTAATAAAGTACCACTCCTTT
ACAGGTTTTTACGGTAAAAAATCGGTCTTTCTTTAATCTTACATAGCTGAACGAATTCATTGGCTCAG
TATTTTAAAGATAACTAGTCAGTATATACTGTTCTGTAACCTTAAAGATGACCTGAAAATTAACAGGCCCTCTCC
CATTTCTCTTCTCACTCTATCCCCACCGAAGAGGGCTCAGAAAAAGTTTTTATTAATATATTTGGGGTCCGAG
AAATACAAACATCACAAAGAATACGATATCCCAGCTTAAATGTACTGGAACGTTTGTGAGTGAGTTTCATTTC
AAAGTTTACCCTACATAGGGAATTGTAGAAGTGAGTTAGTAGAAGTGAGTTCGTGTGAAACCCTGGAAAGAAAC
AAAAGCCCCATGCAACACGTTCCGGGCTGTTGTGTAGATGTTTATTCTAGTCACTAGGGGAAGCACATAAAAC
CCTGAGGTGTGTGTGCTGAAGGGCGAATTTTGTCTTTTGGGGAGTTCATGATATAAACATCTAGAACCAAAAG
TCAAATCAGAAGGTCAGTTTAGGCTTTAGTTCTCTTTGAGGAAAGATTTAAAGCAATAGACTATAATAGTTACCC
GGTAGACTAAAAAATTTGCCTTTAATCTTTTGATTGGAATTTTTTTTACAAAGTTTGGAGCATGGAACAAAT
GAAAATTGAACCTGCTTATTTTTTAGGATGGTGTATTGATGGCCCCAACAGAACTTTCTAAAATCATGCGATAAA
CATATATGATAGTAGTTGTAAATGCTTCTTGTTTTGAATGTTGAGTAATTATCGATAGAAATTTTGCTGTCC
ATTATACATTCTTCAATTAACCTTTCATTGTTAAAAAATTGGGGGATTGATGTTTGGTTTGGTTTGTGGGGAGT
GAAGAGGACTACTGGAGGGACCTTGTTTGCTTCTTTTTTCTTTTTTAAATTTATCATCAAGTCTAGGAAAGGA
GTAAGTTGCCGACAATTGTCACCTTTCCCTCCTAAGAAAGTAACATGTAAAGATTCCCACCTACCAGCCTGGGTG
ACAGTGAGACTCCCGTCTCNNNNNNNNNNNNNNNNNNNTTCCACCCACTTTTAAAGCTAAAGTATATGTAGGCA
TTAAAGATTTATTTAATAGAAATAAAGGGCCCTCTTACGGCCCTTTGTGGTCATAGGAAATATTTTTTTCACAAG
TGGTACCCAAGTGATTTT

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FIGURE 875

RHFAGACDRVGVEWSGCGCRLFPLPHGPVSGLI RPSALEPRLVSYLVLSASST

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FIGURE 876

CCGCCGCCCATCTGAGGGAGGTACCCTGGAAACCACCTTTTATCGGTGGGGAAGTGCAGTCGCGGTGGGCGGC
TCTGGGGGCCAGCGAAACGGGAGGCCTCTAAATCTTTAGGTTGGGGCTGCATTGCCCTGGAGCCGCACTCTTGAG
TCCGAGGCCATCTTTTGTGGAGAAGGCGTCGGCGTTGGCGTTTTCCCGAGGTGGGCTGTACAGTGCTCTCCGTC
CGCGGAAAAAGAAGCCTCTGAACCCGCGCCGGCCCGCAGCCCCCGTGCCTTCCGGCCGCTGCTCGCCGTCGCCAG
AGGCTAGGCCACGTTTCCCCCAGTGCCGAGGTGTTTCTGTGACCCTCCCTCCACTCCCATTCCTTCTGAAAGGG
CACCTGCTCTTGGTGAGAAAAGAAATTATAGCACGAAGAGCCAGTATCAGAAGAGTATCCATCACCCGCAGCAAC
CGCTCAGGGAACACCATCAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 877

CTCGACTCTTAGCTTGTCGGGGACGGTAACCGGGACCCGGTGTCTGCTCCTGTCGCCTTCGCCTCCTAATCCCTA
GCCACTATGCGTGAGTGCATCTCCATCCACGTTGGCCAGGCTGGTGTCCAGATTGGCAATGCCTGCTGGGAGCTC
TACTGCCTGGAACACGGGCATCCAGCCCGATGGCCAGATGCCAAGTGACAAGACCATTGGGGGAGGAGATGACTCC
TTCAACACCTTCTTCAGTGAGACGGGCGCTGGCAAGCACGTGCCCCGGGCTGTGTTTGTAGACTTGGAACCCACA
GTCATTGATGAAGTTCGCACTGGCACCTACCGCCAGCTCTTCCACCCTGAGCAGCTCATCACAGGCAAGGAAGAT
GCTGCCAATAACTATGCCCAGGGCACTACACCATTGGCAAGGAGATCATTGACCTTGTGTTGGACCGAATTTCGC
AAGCTGGCTGACCAGTGACCGGTCTTCAGGGCTTCTTGGTTTTCCACAGCTTTGGTGGGGGAAGTGGTTCTGGG
TTCACCTCCCTGCTCATGGAACGTCTCTCAGTTGATTATGGCAAGAAGTCCAAGCTGGAGTTCTCCATTTACCCA
GCACCCCAAGGTTTCCACAGCTGTAGTTGAGCCCTACAACTCCATCCTCACCACCCACACCACCCTGGAGCACTCT
GATTGTGCCTTCATGGTAGACAATGAGGCCATCTATGACATCTGTCGTAGAAACCTCGATATCGAGCGCCCAACC
TACACTAACCTTAACCGCCTTATTAGCCAGATTGTGTCTCTCCATCACTGCTTCCCTGAGATTTGATGGAGCCCTG
AATGTTGACCTGACAGAATTCCAGACCAACCTGGTGCCCTACCCCCGCATCCACTTCCCTCTGGCCACATATGCC
CCTGTCATCTCTGCTGAGAAAGCCTACCATGAACAGCTTTCTGTAGCAGAGATCACCAATGCTTGCTTTGAGCCA
GCCAACCAGATGGTGAATGTGACCCTCGCCATGGTAAATACATGGCTTGCTGCCTGTTGTACCGTGGTGACGTG
GTTCCCAAAGATGTCAATGCTGCCATTGCCACCATCAAAACCAAGCGCAGCATCCAGTTTGTGGATTGGTGCCCC
ACTGGCTTCAAGGTTGGCATCAACTACCAGCCTCCCACTGTGGTGCTGGTGGAGACCTGGCCAAGGTACAGAGA
GCTGTGTGCATGCTGAGCAACACCACAGCCATTGCTGAGGCCTGGGCTCGCCTGGACCACAAGTTTGACCTGATG
TATGCCAAGCGTGCCCTTTGTTCACTGGTACGTGGGTGAGGGGATGGAGGAAGGCGAGTTTTAGAGGCCCCGTGAA
GATATGGCTGCCCTTGAGAAGGATTATGAGGAGGTTGGTGTGGATTCTGTTGAAGGAGAGGGTGAGGAAGAAGGA
GAGGAATACTTAATTATCCATTCTTTTGGCCCTGCAGCATGTCATGCTCCAGAATTTAGCTTCAGCTTAAGT
ACAGACGTTAAAGCTTTCTGGTTAGATTGTTTTCACTTGGTGATCATGTCTTTTCCATGTGTACCTGTAATATTT
TTCCATCATATCTCAAAGTAAAGTCATTAACATCAAAAAAAAAAAAAAAAAA

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FIGURE 878

MRECISIHVGQAGVQIGNACWELYCLEHGIQPDGQMPSDKTIGGGDDSFNTFFSETGAGKHVPRAVFVDLEPTVI
DEVRTGTYRQLFHPEQLITGKEDAANNYARGHYTIGKEIIDLVLDRIKRLADQCTGLQGFLVFHSFGGGTGSGFT
SLLMERLSVDYGKKSLEFSIYPAPQVSTAVVEPYNSILTHTTLEHSDCAFMVDNEAIYDICRRNLDIERPTYT
NLNRLISQIVSSITASLRFDGALNVDLTEFQTNLVPYPRIHFPLATYAPVISAEKAYHEQLSVAEITNACFEPAN
QMVKCDPRHGKYMACECLLYRGDVVPKDVNAAIATIKTKRSIQFVDWCPTGFKVGINYQPPTVVPGGDLAKVQRAV
CMLSNTTAIAEAWARLDHKFDLMYAKRAFVHWYVGEGMEEGEFSEAREDMAALEKDYEYEVGVDSVEGESEEEEEE
Y

FIGURE 879

GGCACGAGGCAGTAGCTCCCGTTGCGGCGGCACCCGTGGCAGCCCTGGCGGACGCAGGAGCG**ATG**GCAGCGACCG
ATATAGCTCGCCAGGTGGGTGAAGGTTGCCGAACGTGTCCCCTGGCTGGACATGTGGGGTTTGACAGCTTGCCTG
ACCAGCTGGTGAATAAGTCCGTCAGCCAGGGCTTCTGCTTCAACATCCTGTGCGTGGGAGAGACAGGTTTGGGCA
AGTCCACCCTCATGGACACCCTGTTCAACACCAAATTCGAAGGGGAGCCAGCCACCCACACACAGCCGGGTGTCC
AGCTCCAGTCTAATACCTATGACCTCCAAGAGAGCAACGTGAGGCTAAAGCTCACGATCGTTAGCACAGTTGGCT
TTGGGGACCAGATCAACAAAGAGGACAGCTACAAGCCTATCGTGGAATTCATCGATGCACAATTCGAGGCCTACC
TGCAGGAAGAGCTAAAGATCCGAAGAGTGCTACACACCTACCATGACTCCCGAATCCATGTCTGCTTGTATTTCA
TTGCCCCCACGGGTCATTCCCTGAAGTCTCTGGACCTAGTGACTATGAAGAAGCTGGACAGTAAGGTGAACATCA
TCCCCATCATTGCCAAAGCAGATGCCATTTCAAGAGTGAGCTAACAAAGTTCAAATCAAATCACCAGCGAGC
TTGTCAGCAACGGAGTCCAGATCTATCAGTTTCTACAGATGATGAGTCGGTGGCAGAGATCAATGGAACCATGA
ACGCCCACCTGCCGTTTGCTGTCTATTGGCAGCACAGAAGAACTGAAGATAGGCAACAAGATGATGAGGGCGCGGC
AGTATCCTTGGGGCACTGTGCAAGTTGAAAACGAGGCCCCACTGCGACTTTGTGAAGCTGCGGGAGATGCTGATTC
GGGTCAACATGGAGGATCTGCGGGAGCAGACCCACACCCGGCACTATGAGCTGTATCGCCGCTGTAAGCTGGAGG
AGATGGGCTTCAAGGACACCGACCCTGACAGCAAACCCCTTCAAGTTTACAGGAGACATATGAGGCCAAAAGGAACG
AGTTCCTAGGGGAACTCCAGAAAAAGAAGAGGAGATGAGACAGATGTTCTGTCAGCGAGTCAAAGAGAAAGAAG
CGGAGCTCAAAGAGGCAGAGAAAGAGCTGCACGAGAAGTTTGACCGTCTGAAGAACTGCACCAGGACGAGAAGA
AGAACTGGAGGATAAGAAGAAATCCCTGGATGATGAAGTGAATGCTTCAAGCAAAGAAAGACGGCGGCTGAGC
TGCTCCAGTCCCAGGGCTCCCAGGCTGGAGGCTCACAGACTCTGAAGAGAGACAAAGAGAAGAAAACTTTTTTT**T**
AATCTTGTCTTCAAGCAGCTGCACTAAGTCTAAAGGAGAAGACTGCCATTATAGAAGAGTTAGGGTTCCATATTGT
CTCAAATCAGAAATCAACCAATTTCTCTCCCCTCAAAGTCAAGCACACACACATACACCACACCACTCAACAA
GTGTTTATGTGTCCCTGTGTCCAGGCAAGAAGCTCTCTTCTGACTCACATGGTATTTTAAATGGAAGTGTCTTG
TCCTAACTAAACAAGGCAGGAAAAGAACCATCAGAGCTGGAAAATGGACGAAATGTAACCTCAGAGAAACAACCTAC
AGGACCACTCACCCAAGTGTAAAGTGAAGTGAAGTGGGGCAGGACACCTCAGCTGTGGGTATGAAAGTACTGTTCTGTTCAC
AAGGTTTTGTTTGAGTTTTATGTTTTTCTTTTAAACATTTCTCTGGTTTCGATGGGTTGACTGTCTACAGCCACTG
TTAAACATTTCTGAATATGCAAGAGAAAGTCAAGTGACATTTGTATCTTCTTCAGCATTTCGACACCTTCTATAG
ATTCCAGCAAAGGGGGAAAATGTATCCACTATCTAACACTTAGGTAGAGAAGGGAGGGGGTTTAAGCTTAGTGAG
GGCAAATTAATCCATTCCACCTTCCGAGACCAGTTAGGGTTTTGAGAGAGGTTTCTGCTCAACCTGGGATCTGG
AGGGAGAGCTTTGATGTTGGTAAATCTGCCTTGAATTCATTGGTTTAACTTGCATCAAAATACCATGTGAGTGTG
CTCATTCTCATATATCCCCTACCACCATCACCACATTCTGCTGTTTCAAGTGTCTCTTGAGAGAGCCTCTTTGCAT
GTTTTCCAGAAATCTGTGTGTTTTTCTTTCTCTCTTTGTTCTTTTTGCTCAAAGGTGTGACCAGTCATTGC
CCCTCTGGGGCTTTCAATCTCCAGGAGAAACATCCAGAACCAGCACTGTTTAGCCTGATACCTTTCTAATGTCC
ATGTCAATTTTCAATAAAATTCAAAGAAATGCTAAAAAAAAAAAAAAAAAAAAA

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FIGURE 880

MAATDIARQVGEGCRTVPLAGHVGFDSLDPQLVNKSVSQGFCFNILCVGETGLGKSTLMDTLFNTKFEGEPATHT
QPGVQLQSNTYDLQESNVRLKLTIVSTVGFGDQINKEDSYKPIVEFIDAQFEAYLQEELKIRRVLHTYHDSRIHV
CLYFIAPTGHSLKSLDLVTMKKLDSKVNIIPIIAKADAISKSELTKFKIKITSELVSNGVQIYQFPDDDESVAEI
NGTMNAHLPPFAVIGSTEELKIGNKMMRARQYPWGTIVQVENEAHCDFVKLREMLIRVNMEDLREQTHTRHYELYRR
CKLEEMGFKDTPDSKPFSLQETYEAKRNEFLGELQKKEEEMQMFVQRVKEKEAELKEAEKELHEKFDRLKKLH
QDEKKKLEDKKKSLDDEVNAFKQRKTAELLQSQSQAGGSQTLKRDKEKKNFF

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FIGURE 881

ATCAGCGAGGGATTACAGGCGAAATGAGACTGTTTCGTGAGTGATGGCGTCCCGGGTTGCTTGCCGGTGCTGGCCG
CCGCCGGGAGAGCCCGGGGAGAGCAGAGGTGCTCATCAGCACTGTAGGCCCGGAAGATTGTGTGGTCCCGTTCC
TGACCCGGCCTAAGGTCCCTGTCTTGACGCTGGATAGCGCAACTACCTCTTCTCCACTAGTGCAATCTGCCGAT
ATTTTTTTTTGTTATCTGGCTGGGAGCAAGATGACCTACTAACCAGTGGCTGGAATGGGAAGCGACAGAGCTGC
AGCCAGCTTTGTCTGCTGCCCTGTACTATTTAGTGGTCCAAGGCAAGAAGGGGGAAGATGTTCTTGTTTCAGTGC
GGAGAGCCCTGACTCACATTGACCACAGCTTGAGTCGTCAGAACTGTCTTTCTGGCTGGGGAGACAGAATCTC
TAGCCGACATTGTTTTGTGGGGAGCCCTATACCCATTACTGCAAGATCCCGCTACCTCCCTGAGGAGCTGAGTG
CCCTGCACAGCTGGTTCAGACACTGAGTACCCAGGAACCATGTGACGAGCTGCAGAGACTGTACTGAAACAGC
AAGGTGTCCTGGCTCTCCGGCCTTACCTCCAAAAGCAGCCCCAGCCCAGCCCCGCTGAGGGAAGGGCTGTACCA
ATGAGCCTGAGGAGGAGGAGCTGGCTACCCTATCTGAGGAGGAGATTGCTATGGCTGTTACTGCTTGGGAGAAGG
GCCTAGAAAGTTTGCCCCGCTGCGGCCCCAGCAGAATCCAGTGTTGCCTGTGGCTGGAGAAAGGAATGTGCTCA
TCACCAGTGCCCTCCCTTACGTCAACAATGTCCCCACCTTGGAACATCATTGGTTGTGTGCTCAGTGCCGATG
TCTTTGCCAGGTACTCTCGCTCCGCCAGTGGAACACCCTCTATCTGTGTGGGACAGATGAGTATGGTACAGCAA
CAGAGACCAAGGCTCTGGAGGAGGACTAACCCCCAGGAGATCTGCGACAAGTACCACATCATCCATGCTGACA
TCTACCGCTGGTTTAACATTTTCGTTTGATATTTTTGGTTCGCACCACCACTCCACAGCAGACCAAAATCACCCAGG
ACATTTTCCAGCAGTTGCTGAAACGAGGTTTTGTGCTGCAAGATACTGTGGAGCAACTGCGATGTGAGCACTGTG
CTCGCTTCTGGCTGACCGCTTCGTGGAGGGCGTGTGTCCCTTCTGTGGCTATGAGGAGGCTCGGGGTGACCAGT
GTGACAAGTGTGGCAAGCTCATCAATGCTGTGAGCTTAAGAAGCCTCAGTGTAAGTCTGCCGATCATGCCCTG
TGGTGCAGTCGAGCCAGCACCTGTTTCTGGACCTGCCTAAGCTGGAGAAGCGACTGGAGGAGTGGTTGGGGAGGA
CATTGCCTGGCAGTGACTGGACACCCAATGCCAGTTTATCACCCGTTCTTGGCTTCGGGATGGCCTCAAGCCAC
GCTGCATAACCCGAGACCTCAAATGGGGAACCCCTGTACCCTTAGAAGGTTTTGAAGACAAGGTATTCTATGTCT
GGTTTGATGCCACTATTGGCTATCTGTCCATCACAGCCAACTACACAGACCAGTGGGAGAGATGGTGGGAAGAAC
CAGAGCAAGTGGACCTGTATCAGTTCATGGCCAAAGACAATGTTCTTCCATAGCTTAGTCTTTCTTCTGCTCAG
CCCTAGGAGCTGAGGATAACTATACCTTGGTCAGCCACCTCATTGCTACAGAGTACCTGAACTATGAGGATGGGA
AATTCTCTAAGAGCCGCGGTGTGGGAGTGTGTTGGGGACATGGCCCAGGACACGGGGATCCCTGCTGACATCTGGC
GCTTCTATCTGCTGTACATTGCGCTGAGGGCCAGGACAGTGCTTTCTCCTGGACGGACCTGCTGCTGAAGAATA
ATTCTGAGCTGCTTAACAACCTGGGCAACTTCATCAACAGAGCTGGGATGTTTGTGTCTAAGTTCTTTGGGGCT
ATGTGCCTGAGATGGTGCTCACCCCTGATGATCAGCGCTGCTGGCCCATGTACCCCTGGAGCTCCAGCACTATC
ACCAGCTACTTGAGAAGGTTTCGGATCCGGGATGCCTTGCGCAGTATCCTCACCATATCTCGACATGGCAACCAAT
ATATTCAGGTGAATGAGCCCTGGAAGCGGATTAAAGGCAGTGAGGCTGACAGGCAACGGGCAGGAACAGTGACTG
GCTTGGCAGTGAAATATAGCTGCCTTGCTCTCTGTATGCTTCAGCCTTACATGCCACGGTTAGTGCCACAATCC
AGGCCCAGCTGCAGCTCCACCTCCAGCTGCAGTATCCTGCTGACAACTTCCTGTGTACCTTACCAGCAGGAC
ACCAGATTGGCACAGTCAGTCCCTTGTTCCAAAATTGGAAAATGACCAGATTGAAAGTTTAAAGGCAGCGCTTG
GAGGGGGCCAGGCAAAAACGTCCCCGAAGCCAGCAGTTGTAGAGACTGTTACAACAGCCAAGCCACAGCAGATAC
AAGCGCTGATGGATGAAGTGACAAAACAAGGAAACATTGTCCGAGAACTGAAAGCACAAAAGGCAGACAAGAACG
AGGTTGCTGCGGAGGTGGCGAACTCTTGATCTAAAGAAACAGTTGGCTGTAGCTGAGGGGAAACCCCTGAAG
CCCCTAAAGGCAAGAAGAAAAAGTAAAGACCTTGCTCATAGAAAGTCACTTTAATAGATAGGGACAGTAATAA
ATAAATGTACAATCTCTATA

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FIGURE 882

MRLFVSDGVPGLPVLAAAGRARGRAEVLISTVGPEDCVVPFLTRPKVPVLQLDSGNYLFSTSAICRYFFLLSGW
EQDDL TNQWLEWATELQPALSAALYYLVVQGKGEDVLGSVRRAL THIDHSLSRQNC PFLAGETESLADIVLWG
ALYPLLQDPAYLPEELSALHSWFQTLSTQEPCQRAAETVLKQQGV LALRPYLQKQPQPSPAEGRV TNEPEEEEL
ATLSEEEIAMAVTAWEKGLSLPPLRPQQNPVLPVAGERNVLITSALPYVNNVPHLGN IIGCVLSADV FARYSRL
RQWNTLYLCGTDEYGTATETKALEEGLTPQEICDKYHIIHAD IYRWFNISFDIFGR TTPQQTKITQDIFQQLK
RGFVLQDTVEQLRCEHCARFLADRFVEGVC PFCGYEEARGDQCDKCGKLINAVELKKPQCKVCRSCP VVQSSQHL
FLDLPKLEKRLEEWLGRTLPGSDWTPNAQFITRSWLRDGLKPRCITRDLKWGTPVPLEGFEDKV FYVWFDATIGY
LSITANYTDQERWWKNPEQVDLYQFMAKDNVPFHSLVFPC SALGAEDNYTLVSHLIATEY LNYEDGKFSKSRGV
GVFGDMAQDTGIPADIWRFYLLYIRPEGQDSAFSWTDLLLKNNSELLNNLGNFINRAGMFVSKFFGGYVPEMVL T
PDDQRLLAHV TLELQHYHQLLEKVRIRDALRSILTISR HGNQYIQVNEPWKRIKGSEADRQRAGTVTGLAVNIAA
LLSVMLQPYMPTVSATIQAQLQLPPAC SILLTNFLCTL PAGHQIGTVSPLFQKLENDQIESLRQRFGGGQAKTS
PKPAVVETVTTAKPQQIQALMDEVTKQGNIVRELKAQKADKNEVAAEVAKLLDLKKQLAVAEGKPPEAPKGKKKK

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FIGURE 883

GGCACGAGGCTGCTGTTTGTCTACTTCCTCCTGCTTCCCCGCCGCCGCCGCCGCCATC**ATG**AGGGAAATCGTGCA
CTTGCAGGCCCGGGCAGTGCGGCAACCAATCGGCGCCAAGTTTTGGGAGGTGATCAGCGATGAGCACGGCATCGA
CCCCACGGGCACCTACCACGGGGACAGCGACCTGCAGCTGGAACGCATCAACGTGTACTACAATGAGGCCACCGG
CGGCAAGTACGTGCCCCGCGCCGTGCTCGTGGATCTGGAGCCCCGGCACCATGGACTCCGTGCGCTCGGGGGCCCTT
CGGGCAGATCTTCCGGCCGGACAACCTTCGTTTTTCGGTCAGAGTGGTGCTGGGAACAACCTGGGGCAAGGGGCACTA
CACAGAAGGCGCGGAGCTGGTGGACTCGGTGCTGGATGTTGTGAGAAAGGAGGCTGAGAGCTGTGACTGCCTGCA
GGGTTTTCCAGCTGACCCACTCCCTGGGTGGGGGGACTGGGTCTGGGATGGGTACCCTCCTCATCAGCAAGATCCG
GGAGGAGTACCCAGACAGGATCATGAACACGTTTAGTGTGGTGCCTTCGCCCCAAAGTGTGAGACACAGTGGTGGA
GCCCTACAACGCCACCCTCTCAGTCCACCAGCTCGTAGAAAACACAGACGAGACCTACTGCATTGATAACGAAGC
TCTCTACGACATTTGCTTCAGAACCCTAAAGCTGACCACGCCACCTATGGTGACCTGAACCACCTGGTGTCTGC
TACCATGAGTGGGGTCACCACCTGCCTGCGCTTCCCAGGCCAGCTCAATGCTGACCTGCGGAAGCTGGCTGTGAA
CATGGTCCCGTTTCCCCGGGTGCACTTCTTCATGCCCGGCTTTGCCCCACTGACCAGCCGGGGCAGCCAGCAGTA
CCGGGCGCTGACCGTGCCCGAGCTCACCCAGCAGATGTTTGATGCCAAGAACATGATGGCTGCCTGCGACCCCCG
CCATGGCCGCTACCTGACGGTTGCCGCCGTGTTTCAGGGGCCGCATGTCCATGAAGGAGGTGGATGAGCAAATGCT
TAATGTCCAAAACAAAAACAGCAGCTATTTTGTGAGTGGATCCCCAACAATGTGAAAACGGCTGTCTGTGACAT
CCCACCTCGGGGGCTAAAAATGTCCGCCACCTTCATTGGCAACAGCACGGCCATCCAGGAGCTGTTCAAGCGCAT
CTCCGAGCAGTTCACGGCCATGTTCCGGCGCAAGGCCTTCCTGCACTGGTACACGGGCGAGGGCATGGACGAGAT
GGAGTTCACCGAGGCCGAGAGCAACATGAATGACCTGGTGTCCGAGTACCAGCAGTACCAGGATGCCACAGCCGA
GGAGGAGGGCGAGTTCGAGGAGGAGGCTGAGGAGGAGGTGGCC**TAG**AGCCTTCAGTCACTGGGGAAAGCAGGGAA
GCAGTGTGAACTCTTTATTCACTCCAGCCTGTCTGTGGCCTGTCCCACTGTGTGCACTTGCTGTTTTCCCTGT
CCACATCCATGCTGTACAGACACCACCATTAAGCATTTTCATAGTGAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AA

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FIGURE 884

MREIVHLQAGQCGNQIGAKFWEVISDEHGIDPTGTYHGDSDLQLERINVYYNEATGGKYVPRAVLVDLEPGTMDS
VRSGPFGQIFRPDNFVFGQSGAGNNWAKGHYTEGAELVDSVLDVVRKEAESCDCLOGFQLTHSLGGGTGSGMGTL
LISKIREEYPDRIMNTFSVVPSPKVSDTVVEPYNATLSVHQLVENTDETYCIDNEALYDICFRTLKLTPTYGDL
NHLVSATMSGVTTCLRFPGQLNADLRKLAVNMVFFRLHFFMPGFAPLTSRGSQQYRALTVPELTQQMFDAKNMM
AACDPRHGRYLTVAAVFRGRMSMKEVDEQMLNVQNKNSSYFVEWIPNNVKTAVCDIPRGLKMSATFIGNSTAIQ
ELFKRISEQFTAMFRRKAFLHWYTGEQMDMEFTEAESNMNDLVSEYQQYQDATAEEEGEFEEEEEEVA

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FIGURE 885

CAGGAGAAGCTGACCAGCCGCAAGATGGACAGCCGCTGGGGCGGGCGCAGCGAGTCCATCAATGTGACCCTCAAC
GTGGAGCAGGCAGCCTACACCCGTGATGCCCTGGCCAAGGGGCTCTATGCCCGCCTCTTCGACTTCCTCGTGGAG
GCCATCAACCGTGCTATGCAGAAACCCAGGAAGAGTACAGCATCGGTGTGCTGGACATTTACGGCTTCGAGATC
TTCCAGAAAAATGGCTTCGAGCAGTTTTGCATCAACTTCGTCAATGAGAAGCTGCAGCAAATCTTTATCGAACTT
ACCCTGAAGGCCGAGCAGGAGGAGTATGTGCAGGAAGGCATCCGCTGGACTCCAATCCAGTACTTCAACAACAAG
GTCGTCTGTGACCTCATCGAAAACAAGCTGAGCCCCCAGGCATCATGAGCGTCTTGGACGACGTGTGCGCCACC
ATGCACGCCACGGGCGGGGAGCAGACCAGACACTGCTGCAGAAGCTGCAGGCGGCTGTGGGGACCCACGAGCAT
TTCAACAGCTGGAGCGCCGGCTTCGTTCATCCACCACTACGCTGGCAAGGTCTCCTACGACGTCAGCGGCTTCTGC
GAGAGGAACCGAGACGTTCTCTTCTCCGACCTCATAGAGCTGATGCAGTCCAGTGACCAGGCCTTCCTCCGGATG
CTCTTCCCCGAGAAGCTGGATGGAGACAAGAAGGGGCGCCCCAGCACCGCCGGCTCCAAGATCAAGAAACAAGCC
AACGACCTGGTGGCCACACTGATGAGGTGCACACCCCACTACATCCGCTGCATCAAACCAACGAGACCAAGCAC
GCCCCGAGACTGGGAGGAGAACAGAGTCCAGCACCAAGGTGGAATACCTGGGCCTGAAGGAAAACATCAGGGTGC GC
AGAGCCGGCTTCGCCTACCGCCGCCAGTTCGCCAAATTCTGTCAGAGGTATGCCATTCTGACCCCCGAGACGTGG
CCGCGGTGGCGTGGGGACGAACGCCAGGGCGTCCAGCACCTGCTTCGGGCGGTCAACATGGAGCCCCGACAGTAC
CAGATGGGGAGCACCAAGGTCTTTGTCAAGAACCCAGAGTCGCTTTTCTCTGGAGGAGGTGCGAGAGCGAAAG
TTCGATGGCTTTGCCCCGAACCATCCAGAAGGCCTGGCGGCGCCACGTGGCTGTCCGGAAGTACGAGGAGATGCGG
GAGGAAGCTTCCAACATCCTGCTGAACAAGAAGGAGCGGAGGCGCAACAGCATCAATCGGAACCTTCGTGCGGGAC
TACCTGGGGCTGGAGGAGCGGCCGAGCTGCGTCAGTTCTTGGCAAGAAGGAGCGGGTGGACTTCGCCGATTTCG
GTCACCAAGTACGACCGCGCTTCAAGCCCATCAAGCGGGACTTGATCCTGACGCCCAAGTGTGTGTATGTGATT
GGGCGAGAGAAGATGAAGAAGGGACCTGAGAAAGGTCCAGTGTGTGAAATCTTGAAGAAGAAATTGGACATCCAG
GCTCTGCGGGGGTCTCCCTCAGCACGCGACAGGACGAATTCTTCATCCTCCAAGAGGATGCCGCCGACAGCTTC
CTGGAGAGCGTCTTCAAGACCGAGTTTGTTCAGCCTTCTGTGCAAGCGCTTCGAGGAGGCGACGCGGAGGCCCTG
CCCCCTACCTTCAGCGACACACTACAGTTTCGGGTGAAGAAGGAGGGCTGGGGCGGTGGCGGCACCCGCAGCGTC
ACCTTCTCCCGCGGCTTCGGCGACTTGGCAGTGCTCAAGGTGGCGGTTCGGACCTCACGGTCAGCGTGGGCGAT
GGGCTGCCCAAGAACTCCAAGCCTACCGGAAAGGGATTGGCCAAGGGTAAACCTCGGAGGTGCTCCAAGCCCCCT
ACCCGGGCGGCCCCCTGGCGCCCCCAAGGCATGGATCGAAATGGGGCCCCCTCTGCCACAGGGGGGGGCCCCC
TGCCCCCTGGAGAAATTCATTTGGCCCAGGGGGCACCCACAGGCCTCCCCGGCCCTCCGTCCACATCCCTGGGAT
GCCAGCAGACGACCCCGGGCAGTCCGCCCTCAGAGCACAAACAGAAATTCCTCAACGTGCCTGACCAGGGGATG
GCCGGCATGCAGAGGAAGCGCAGCGTGGGGCAACGGCCAGTGCTGTGGGCCGACCCAAGCCCCAGCCTCGGACA
CATGGTCCCAAGTGCCGGGCCCTATACCAGTACGTGGGCCAAGATGTGGACGAGCTGAGCTTCAACGTGAACGAG
GTCATTGAGATCCTCATGGAAGATCCCTCGGGCTGGTGGAAAGGGCCGGCTTCACGGCCAGGAGGGCCTTTTCCCA
GGAAACTACGTGGAGAAGATCTGAGCTGGGCCCTGGGATACTGCCTTCTCTTTCGCCCCGCTATCTGCCTGCCGG
CCTGGTGGGGAGCCAGGCCCTGCCAATGAAAGCCTCGTTTACCTGGGCTGCAATAGCCTAAAAGTCCAATCCTTT
GGCCTCCAGTCCTTGCCAGGCCCTGGGTACCAGGTCAGTGGTGACCCCCGCCCTGGGGCCTGGTTTTCCT
CCAACATCACACCTGCTGCCATTGTCCAAAACGTGTGTGTGTCAAAGGGGACTAACAGCAGAATTTACCTCCCAA
CTGCCATGTGATTAAGAAATGGGTCTTGAGTCCTGTGCTGTTGGCAAAGTTCAGGCACAGTTGGGGAGGGGGG
CCGGAATCCGC

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FIGURE 886

CGGAGCCAGCGTGGGAGGCCGCTGCCGTCGCGCGCCTTGGTTTTTCTGTTCCCTTTTTTTTTTTTTTTTTTAACTT
 CCTGCCTATCACACGCAGCCATCAGCCCACAAAGACATGACTACCAACGCGGGCCCCCTTGACCCATACTGGCCT
 CAGCACCTAAGACTGGACAACCTTTGTACCTAATGACCGCCCCACCTGGCATATACTGGCTGGCCTCTTCTCTGTC
 ACAGGGGTCTTAGTCGTGACCACATGGCTGTTGTCAGGTCGTGCTGCGGTTGTCCCATTTGGGGACTTGGCGGCGA
 CTGTCCCTGTGCTGGTTTGCAGTGTGTGGGTTTATTACCTGGTGATCGAGGGCTGGTTCGTTCTCTACTACGAA
 GACCTGCTTGGAGACCAAGCCTTCTTATCTCAACTCTGGAAAGAGTATGCCAAGGGAGACAGCCGATACATCCTG
 GGTGACAACTTCACAGTGTGCATGGAACCATCACAGCTTGCCCTGTGGGGACCACTCAGCCTGTGGGTGGTGATC
 GCCTTTCTCCGCCAGCATCCCCCTCCGCTTCATTCTACAGCTTGTGGTCTCTGTGGGCCAGATCTATGGGGATGTG
 CTCTACTTCCTGACAGAGCACCGCGACGGATTCCAGCACGGAGAGCTGGGCCACCCTCTCTACTTCTGGTTTTAC
 TTTGTCTTCATGAATGCCCTGTGGCTGGTGTGCCTGGAGTCCTTGTGCTTGATGCTGTGAAGCACCTCACTCAT
 GCCCAGAGCACGCTGGATGCCAAGGCCACAAAAGCCAAGAGCAAGAAGAACTTGAGGAGTGGTGGACCAGGCTCGA
 AACTGGCCGAGGAGGAGCTCTCTGCCTGCCAGAAGAGTCTAGTCCTGCTCCACAGTTTGGAGGGACAAAGCTA
 ATTGATCTGTACACTCAGGCTCATGGGCAGGCACAAGAAGGGGAATAAAGGGGGCTGTGTGAAGGCACTGCTGGG
 AGCCATTAGAACACAGATACAAGAGAAGCCAGGAGGTCTATGATGGTGACGATTTTTTAAAATCAGGAAATAAAAG
 ATCTTGACTCTAAAAAAAAAAAAA

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FIGURE 887

MTTNAGPLHPYWPQHRLDNFVPNDRPTWHILAGLFSVTGVLVVTTWLLSGRAAVVPLGTWRRLSLCWFAVCGFI
HLVIEGWVFLYYEDLLGDQAFLSQLWKEYAKGDSRYILGDNFTVCMETITACLGPLSLWVVI AFLRQHPLRFIL
QLVVS VGQIYGDVLYFLTEHRDGFQHGELGHPLYFWFYFVFMNALWLVLPGVLVLDAVKHLTHAQSTLDAKATKA
KSKKN

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FIGURE 888

GAATTGGGACGAGG**ATG**ACGGAGCCGGGCGCCTCTCCCGAGGACCCCTGGGTCAAGGTGGAGTATGCCTACAGC
GACAACAGCCTGGACCCCGGGCTTTTTGTAGAAAGCACCCGCAAGGGGAGTGTAGTGTCCAGAGCTAATAGCATC
GGTTCCACCAGTGCCTCTTCTGTCCCAACACAGATGATGAGGACAGTGATTACCACCAGGAGGCCTACAAGGAG
TCCTACAAAGACCGGCGGCGGCGCACACACTCAGGCTGAGCAGAAGAGGAGGGACGCCATCAAGAGAGGCTAT
GATGACCTTCAGACCATCGTCCCCACTTGCCAGCAGCAGGACTTCTCCATTGGCTCCCAAAAGCTCAGCAAAGCC
ATCGTTCTACAAAAGACCATTGACTACATTAGTTTTTGACAAGGAGAAGAAAAAGCAGGAGGAGGAGGTGTCC
ACGTTACGCAAGGATGTCACCGCCCTAAAGATCATGAAAGTGAACATGAGCAGATTGTGAAGGCACACCAGGAC
AACCCCATGAAGGGGAGGACCAGGTCTCTGACCAGGTCAAGTTCAACGTGTTCAAGGCATCATGGTTTCCCTG
TTCCAGTCCTTCAATGCCTCCATCTCAGTGGCCAGCTTCCAGGAGCTGTCAGCGTGTGTCTTCAGCTGGATCGAG
GAGCACTGTAAGCCTCAGACCCGCGGGAGATTGTGATTGGCGTCTGCACCAATTGAAAAACCAGCTTTACT**TGA**

CCGGTTCTTGAAACCTGGAGAACAGCCAACAAGAGGCCCTTGAATCTCTACGTGGCCACTGAACTGCTGGGCCC
GGGAGACTGGTCTACAACACCACACACTGGACAGCTGGTCTCTACTTGGTGTGTGGTTTCTCCCAGCCCCATTTT
CTCTACAGCGGAGCCGCGGTGTGTGTGTGTGAAAGCTTCTGATTAATTTATTATATTGACGATAAACTCAAAC
CTACCCAGCCTTCCCCCACTCCATGGAAGTCCTTGGGATGGGCGTCTGCTCTGGACACCCCAAAGAGCTCCTGC
CCTCTCAGCCCTTTATTCAAGCCTCAGATTTCTGCTCATGATCTACATAGATTTGGAAACTGTTTTCTCTGTTG
TGGTCTCTTGGGCAACATTTGTGGCCCAAGTTTGGGCAACATTTGGCCCAAGTTTGGGCATTGTGGGAGTAGCTG
TATGGGAGAAAAAGAGTAAGAGGAAATATTCCACAGCCATGAAGGGTGAAAGGGCACCTTGTGCCTAGACTAGG
GCTGGCTGGTCAGTCCCAGGTGAGGACAAGGGCTTCTGGCCATCTCAGGAGGGGGCACCAGGTTCTCTCCCTC
ACCCCATATTCCATCACCTTCCTCCTCTGCTCTGGGTGGTAAGGGAAGCCCTCCCGTTCCACAGGCTATGATG
CTGCATGGCAGAGGCAGGTATAACACAGCACTACATATTGGAAATTTTTTATTTTTCTAAATACCAATGCAGTTT
TGCTACGGTTACAATTTTGAATATTAAGTGAAGCTCAAAATCACCTTTCTGTCAAGCATATCTTGGCCTCTCC
CATGTCTCAGTGTGCTGCATTTCTCCCAGGACTTGGGGGTGGGGTGAAAAGCGTACAAAAGATACTTAAAAGG
GCTCCTGGGGTACACAAGCCCAGCAGGTCTGAGTGAAGCCGTGGGCCCTCCAAATGCTCGTTTTATAGCAACCT
CTCTCTACCTAGTTCTCCAAATTCATTTCTGCCTTCCTCAGGTTTGATATCTGGCAGGTTTGACTATCCAGAGG
AAATTAAATATTTTTATATAAAATTAAATTATAATAAATATTGCCAAATGCTAAAAAAAAAAAAAAAAAAAA

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FIGURE 889

MTEPGASPEDPWVKVEYAYSDNSLDPGLFVESTRKGSVVSRRANSIGSTSASSVPNTDDESDYHQEAYKESYKDR
RRRAHTQAEQKRRDAIKRGYDDLQTIVPTCQQQDFSIGSQKLSKAIVLQKTIDYIQFLHKEKKKQEEEVSTLRKD
VTALKIMKVNYEQIVKAHQDNPHGEDQVSDQVKFNVFQGIMVSLFQSFNASISVASFQELSACVFSWIEEHCKP
QTLREIVIGVLHQLKNQLY

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FIGURE 890

ATGGTGAAAATGACAAAGTCCAAACTTTCCAAGCGTATCTGCCGAAGTGCACCGAACGTACAGCTGTATCCAC
TGCAGAGCACACCTGGCCAATCATGACGAGCTCATCTCCAAGTCCTTTCAGGGGAGCCAGGGACGCGCCTACCTC
TTCAATTCCGTGGTGAACGTGGGCTGCGGCCCTGCAGAGGAGAGGGTCCTTCTCACCGGGCTGCATGCGGTTGCC
GACATCTACTGCGAGAACTGCAAGACCACGCTCGGGTGGAATACGAGCATGCCTTTGAGAGCAGTCAGAAATAT
AAGGAAGGAAAATTCATCATTGAGCTTGCTCATATGATCAAAGACAATGGCTGGGAGTAA

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FIGURE 891

MVKMTKSKTFQAYLPNCHRTYSCIHCRAHLANHDELISKSFQGSQGRAYLFNSVVNVGCGPAEERVLLTGLHAVA
DIYCENCKTTLGWKYEHAFESSQKYKEGKFIIELAHMIKDNGWE

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FIGURE 892

GCGGCCGCCGTGGCCAGGCAACCTATGGGTACCACCGGGTTCTCGCGGGTCTTGCGAACGAACTTTTCCTTGAAA
CTCTCTGGATTCCCTGTAAACAGTGGGGCTCAGCCCCTCAATGACTGGAGGCTTCGATGGTTCAAAGGGGACCTCC
GGAATCACAGGGCCGGGAGTCGCCATGTCCGGGCCACAGCAGCAGGAGAAAAATCGGGACTCCGACCTCAGCCTCC
CGGTGAAGGTCATGAAAGGGGCGGGGAAACGAATAAATTGAGCCTTGACGCAGGCGCAAATGCTCGTTGCATCC
TGGGAGTCGTAGTGCTCAGCACGGTAGTGCTACAAAAGGACTACATTTCCCCAAATGCCCGCAAAGCCTTGTCGA
CGCCTTCCGGAAGGAGTTTGTACACGAGGTCTGAGAGACAGAGGCAGCGTGTGAGCTGCTGGTGCGGTGGTC
AGCGCGATGCCCAAGGCCAAGGGCAAACCCGGAGGCAGAAGTTTGGTTACAGTGTCAACCGAAAGCGTCTGAAC
CGGAATGCTCGACGGAAGGCAGCGCGCGGAATCGAATGCTCCACATCCGACATGCCTGGGACCACGCTAAATCG
GTACGGCAGAACCTGGCCGAGATGGGGTTGGCTGTGGACCCCAACAGGGCGGTGCCCTCCGTAAGAGAAAGGTG
AAGGCCATGGAGGTGGACATAGAGGAGAGGCCTAAAGAGCTTGACGGAAGCCCTATGTGCTGAATGACCTGGAG
GCAGAAGCCAGCCTTCCAGAAAAGAAAGGAAATACTCTGTCTCGGGACCTCATTGACTATGTACGCTACATGGTA
GAGAACCACGGGGGAGGACTATAAGGCCATGGCCCGTGATGAGAAGAATTACTATCAAGATACCCCAAAACAGATT
CGGAGTAAGATCAACGTCTATAAACGCTTTTACCCAGCAGAGTGGCAAGACTTCCTCGATTCTTTGCAGAAGAGG
AAGATGGAGGTGGAGTAAGCTGGTTTACATCACAGCTGCCCCAGGCTGAGGCGTCCCCCGGACCAGTGAAGCTGGA
GCCAGGGTGTAAGGCAAGGAGGTGCTGTGTGGCTCCAGAGGGGCTGGCCAGGTCCCATGGAATCAGAAGGTTACA
CACACACGTGCACACTCCCCGCTCTGGGGAAGGAACTGTTCTCAGAGGCTCCAATTTATATTCTGCGGGGTTT
ACGGAAGCCAGAACCTGCTGTTTTAGGGTGGGTGATGTAAATATAGTGTGTACATAATAAGCAAATATATT
TTAAA

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FIGURE 893

MPKAKGKTRRQKFGYSVNRKRLNRNARRKAARGIECSHIRHAWDHAKSVRQNLAEMLAVDPNRAVPLRKRKVKA
MEVDIEERPKELVKPYVLNDLEAEASLPEKKGNTLSRDLIDYVRYMVENHGEDYKAMARDEKNYYQDTPKQIRS
KINVYKRFYPAEWQDFLDSLQKRKMEVE

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FIGURE 894

GGAATAGGTTAGTTTCAGACAAGCCTGCTTGCCGGAGCTCAGCAGACACCAGGCCTTCCGGGCAGGCCTGGCCCA
CCGTGGGCCTCAGAGCTGCTGCTGGGGCATTGAGAACCGGCTCTCCATTGGCATTGGGACCAGAGACCCCGCAAG
TGGCCTGTTTTGCCTGGACATCCACCTGTACGTCCCCAGGTTTCGGGAGGCCAGGGGCGATGCCAGACCCCGCGG
CGCACCTGCCCTTCTTCTACGGCAGCATCTCGCGTGCCGAGGCCGAGGAGCACCTGAAGCTGGCGGGCATGGCGG
ACGGGCTCTTCTGCTGCGCCAGTGCCTGCGCTCGCTGGGCGGCTATGTGCTGTCGCTCGTGACGATGTGCGCT
TCCACCACTTTCCCATCGAGCGCCAGCTCAACGGCACCTACGCCATTGCCGGCGGCAAAGCGCACTGTGGACCGG
CAGAGCTCTGCGAGTTCTACTCGCGCGACCCCGACGGGCTGCCCTGCAACCTGCGCAAGCCGTGCAACCGGCCGT
CGGGCCTCGAGCCGAGCCGGGGGTCTTCGACTGCCTGCGAGACGCCATGGTGCGTGACTACGTGCGCCAGACGT
GGAAGCTGGAGGGCGAGGCCCTGGAGCAGGCCATCATCAGCCAGGCCCCGAGGTGGAGAAGCTCATTGCTACGA
CGGCCCACGAGCGGATGCCCTGGTACCACAGCAGCCTGACGCGTGAGGAGGCCGAGCGCAAACCTTTACTCTGGGG
CGCAGACCGACGGCAAGTTTCTGCTGAGGCCGCGGAAGGAGCAGGGCACATACGCCCTGTCCCTCATCTATGGGA
AGACGGTGTAACCACTACCTCATCAGCCAAGACAAGGCGGGCAAGTACTGCATTCCCGAGGGCACCAAGTTTGACA
CGCTCTGGCAGCTGGTGAGTATCTGAAGCTGAAGGCGGACGGGCTCATCTACTGCCTGAAGGAGGCCTGCCCA
ACAGCAGTGCCAGCAACGCCCTCAGGGGCTGCTGCTCCACACTCCCAGCCCCACCCATCCACGTTGACTCATCCTC
AGAGACGAATCGACACCCCTCAACTCAGATGGATACACCCCTGAGCCAGCACGCATAACGTCCCCAGACAAACCGC
GGCCGATGCCCATGGACACGAGCGTGTATGAGAGCCCCTACAGCGACCCAGAGGAGCTCAAGGACAAGAAGCTCT
TCCTGAAGCGGATAAACCTCCTCATAGCTGACATTGAACTTGGCTGCGGCAACTTTGGCTCAGTGCGCCAGGGCG
TGTACCGCATGCGCAAGAAGCAGATCGACGTGGCCATCAAGGTGCTGAAGCAGGGCACGGAGAAGGCAGACACGG
AAGAGATGATGCGCGAGGCGCAGATCATGCACCAGCTGGACAACCCCTACATCGTGCGGCTCATTGGCGTCTGCC
AGGCCGAGGCCCTCATGCTGGTCATGGAGATGGCTGGGGGCGGGCCGCTGCACAAGTTCCTGGTCGGCAAGAGGG
AGGAGATCCCTGTGAGCAATGTGGCCGAGCTGCTGCACCAGGTGTCCATGGGGATGAAGTACCTGGAGGAGAAGA
ACTTTGTGCACCGTGACCTGGCGGCCGCAACGTCCTGCTGGTTAACCGGCACTACGCCAAGATCAGCGACTTTG
GCCTCTCCAAAGCACTGGGTGCCGACGACAGCTACTACACTGCCCGCTCAGCAGGGAAGTGGCCGCTCAAGTGGT
ACGCACCCGAATGCATCAACTTCCGCAAGTTCTCCAGCCGAGCGATGTCTGGAGCTATGGGGTACCATGTGGG
AGGCCTTGTCCTACGGCCAGAAGCCCTACAAGAAGATGAAAGGGCCGGAGGTCATGGCCTTCATCGAGCAGGGCA
AGCGGATGGAGTGCCCAACAGAGTGTCCACCCGAAGTGTACGCACTCATGAGTGACTGCTGGATCTACAAGTGGG
AGGATCGCCCCGACTTCTGACCGTGGAGCAGCGCATGCGAGCCTGTTACTACAGCCTGGCCAGCAAGGTGGAAG
GGCCCCCAGGCAGCACACAGAAGGCTGAGGCTGCCTGTGCTGAGCTCCCGCTGCCAGGGGAGCCCTCCACGCC
GGCTCTTCCCCACCTCAGCCCCACCCAGGTCTGAGTCTGGCTGAGCCCTGCTTGTTGTCTCCACACACAG
CTGGGCTGTGGTAGGGGGTGTCTCAGGCCACACCGGCTTGCAATTGCCTGCCTGGCCCCCTGTCTCTCTGGCTG
GGGAGCAGGGAGGTCCGGGAGGGTGC GGCTGTGCAGCCTGTCTGGGCTGGTGGCTCCCGGAGGGCCCTGAGCTG
AGGGCATTGCTTACACGGATGCCTTCCCCTGGGCCCTGACATTGGAGCCTGGGCATCCTCAGGTGGTCAGGCGTA
GATCACCAGAATAAACCCAGCTTCCCTCTTGAAAAAAAAAAAAAAAAAAAAACC

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FIGURE 895

ACACGGACCAAGGAGTCTAACACGTGCGCGAGTCGGGGGCTCGCACGAAAGCCGCCGTGGCGCAATGAAGGTGAA
GGCCGGCGCGCTCGCCGGCCGAGGTGGGATCCCGAGGCCTCTCCAGTCCGCCGAGGGCGCACCACCGGCCCGTCT
CGCCCGCCGCGCCGGGAGGTGGAGCACGAGCGCACGTGTTAGGACCCGAAAGATGGTGAACATATGCCTGGGCAG
GGCGAAGCCAGAGGAACTCTGGTGGAGGTCCGTAGCGGTCCTGACGTGCAAATCGGTTCGTCCGACCTGGGTATA
GGGGCGGGCTCCAGGCGAGGCGGTTCGACGCTCCTGAAACTTGC GCGCGCTCGCGCCACTGCGCCCGGAGCGA
TGAAGATGGTCGCGCCCTGGACGCGGTTCTACTCCAACAGCTGCTGCTTGTGCTGCCATGTCCGCACCGGCACCA
TCCTGCTCGGCGTCTGGTATCTGATCATCAATGCTGTGGTACTGTTGATTTTATTGAGTGGCCTGGCTGATCCGG
ATCAGTATAACTTTTCAAGTTCGAACTGGGAGGTGACTTTGAGTTCATGGATGATGCCAACATGTGCATTGCCA
TTGCGATTTCTCTTCTCATGATCCTGATATGTGCTATGGCTACTTACGGAGCGTACAAGCAACGCGCAGCCTGGA
TCATCCCATTTCTTCTGTTACCAGATCTTTGACTTTGCCCTGAACATGTTGGTTGCAATCACTGTGCTTATTTATC
CAAACCTCCATTCAGGAATACATACGGCAACTGCCTCCTAATTTTCCCTACAGAGATGATGTATGTGCTGATGAATC
CTACCTGTTTGGTCCCTTATTATTCTTCTGTTTATTAGCATTATCTTGACTTTTAAGGGTTACTTGATTAGCTGTG
TTTGGAACGTCTACCGATACATCAATGGTAGGAACCTCTGATGTCTGGTTTATGTTACCAGCAATGACACTA
CGGTGCTGCTACCCCGTATGATGATGCCACTGTGAATGGTGTGCCAAGGAGCCACCGCCACCTTACGTGTCTG
CCTAAGCCTTCAAGTGGGCGGAGCTGAGGGCAGCAGCTTGACTTTGCAGACATCTGAGCAATAGTTCTGTTATTT
CACTTTTGCCATGAGCCTCTCTGAGCTTGTTTGTGCTGAAATGCTACTTTTTTAAAATTTAGATGTTAGATTGAA
AACTGTAGTTTCAACATATGCTTTGCTAGAACACTGTGATAGATTAAGTGTAGAATTCTTCTGTACGATTGGG
GATATAATGGGCTTCACTAACCTTCCCTAGGCATTGAAACTTCCCCCAAATCTGATGGACCTAGAAGTCTGCTTT
TGTACCTGCTGGGCCCCAAAGTTGGGCATTTTTCTCTCTGTTCCCTCTCTTTTGGAAATGTAAAATAAAACCAA
AATAGACAACCTTTTCTTCAGCCATTCCAGCATAGAGAACAAAACCTTATGGAAACAGGAATGTCAATTGTGTAA
TCATTGTTCTAATTAGGTAAATAGAAGTCCTTATGTATGTGTTACAAGAATTTCCCCCACAACATCCTTTATGAC
TGAAGTTCAATGACAGTTTGTGTTTGGGTGGTAAAGGATTTTCTCCATGGCCTGAATTAAGACCATTAGAAAGCA
CCAGGCCGTGGGAGCAGTGACCATCTGCTGACTGTTCTTGTGGATCTTGTGTCCAGGGACATGGGGTGACATGCC
TCGTATGTGTTAGAGGGTGGAAATGGATGTGTTTGGCGCTGCATGGGATCTGGTGCCCTCTTCTCCTGGATTAC
ATCCCCACCCAGGGCCCGCTTTTACTAAGTGTTCTGCCCTAGATTGGTTCAAGGAGGTATCCAACCTGACTTTAT
CAAGTGGAATTGGGATATATTTGATATACTTCTGCCTAACAAACATGGAAAAGGGTTTTCTTTTCCCTGCAAGCTA
CATCCTACTGCTTTGAACTTCCAAGTAIGTCTAGTCACCTTTTAAAATGTAAACATTTTACAGAAAATGAGGATT
GCCTTCTTGTATGCGCTTTTACCTTGACTACCTGAATTGCAAGGGATTTTATATATTCATATGTTACAAAGT
CAGCAACTCTCCTGTTGGTTCATTATTGAATGTGCTGTAAATTAAGTTGTTTGCAATTAAACAAGGTTTGCCCA
CAAAAAAAAAA

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FIGURE 896

MVNYAWAGRSQRKLWWRSVAVLTCKSVVRPGYRGGLQARRSTLLKTCARARATAPGAMKMVAPWTRFYNSCCLC
CHVRTGTILLGVWYLIINAVVLLILLSALADPDQYNFSSSELGGDFEFMDDANMCIAIAISLLMILICAMATYGA
YKQRAAWIIPFFCYQIFDFALNMLVAITVLIYPNSIQEYIRQLPPNFPYRDDVMSVNPTCLVLIILLFISIILTF
KGYLISCVWNCYRYINGRNSSDVLVYVTSNDTTVLLPPYDDATVNGAAKEPPPPYVSA

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FIGURE 897

GGCACGAGGCCGAGTTGCGATGCTGTACTTCTCTTTGTTTTGGGCGGCTCGGCCTCTGCAGAGATGTGGGCAGCT
GGTCAGGATGGCCATTCGGGCTCAGCACAGCAACGCAGCCCAGACTCAGACTGGGGAAGCAAACAGGGGCTGGAC
AGGCCAGGAGACCTGTGCGACAGTGATCCTGAGATGTGGGAGTTGCTGCAGAGGGAGAAGGACAGGCAGTGTCG
TGGCCTGGAGCTCATTGCCTCAGAGAACTTCTGCAGCCGAGCTGCGCTGGAGGCCCTGGGGTCTGTCTGAACAA
CAAGTACTCGGAGGGTTATCCTGGCAAGAGATACTATGGGGGAGCAGAGGTGGTGGATGAAATTGAGCTGCTGTG
CCAGCGCCGGGCCTTGGAAGCCTTTGACCTGGATCCTGCACAGTGGGGAGTCAATGTCCAGCCCTACTCCGGGTC
CCCAGCCAACCTGGCCGTCTACACAGCCCTTCTGCAACCTCACGACCGGATCATGGGGCTGGACCTGCCGATGG
GGGCCATCTCACCCACGGCTACATGTCTGACGTCAAGCGGATATCAGCCACGTCCATCTTCTTCGAGTCTATGCC
CTATAAGCTCAACCCCAAACTGGCCTCATTGACTACAACCAGCTGGCACTGACTGCTCGACTTTTCCGGCCACG
GCTCATCATAGCTGGCACCAGCGCTATGCTCGCCTCATTGACTACGCCCGCATGAGAGAGGTGTGTGATGAAGT
CAAAGCACACCTGCTGGCAGACATGGCCCACATCAGTGGCCTGGTGGCTGCCAAGGTGATTCCCTCGCCTTTCAA
GCACGCGGACATCGTCACCACCACTACTCACAAGACTCTTCGAGGGGGCCAGGTGAGGGCTCATCTTCTACCGGAA
AGGGGTGAAGCTGTGGACCCCAAGACTGGCCGGGAGATCCCTTACACATTTGAGGACCGAATCAACTTTGCCGT
GTTCCCATCCCTGCAGGGGGGGCCCCACAATCATGCCATTGCTGCAGTAGCTGTGGCCCTAAAGCAGGCCTGCAC
CCCCATGTTCCGGGAGTACTCCCTGCAGGTTCTGAAGAATGCTCGGGCCATGGCAGATGCCCTGCTAGAGCGAGG
CTACTCACTGGTATCAGGTGGTACTGACAACCACCTGGTGTGTTGGACCTGCGGCCCAAGGGCCTGGATGGAGC
TCGGGCTGAGCGGGTGTAGAGCTTGTATCCATCACTGCCAACAAGAACACCTGTCCTGGAGACCGAAGTGCCAT
CACACCGGGCGGCTGCGGCTTGGGGCCCCAGCCTTAACTTCTCGACAGTTCCGTGAGGATGACTTCCGGAGAGT
TGTGGACTTTATAGATGAAGGGGTCAACATTGGCTTAGAGGTGAAGAGCAAGACTGCCAAGCTCCAGGATTTCAA
ATCCTTCTGCTTAAGGACTCAGAAACAAGTCAGCGTCTGGCCAACCTCAGGCAACGGGTGGAGCAGTTTGCCAG
GGCCTTCCCCATGCCTGGTTTTGATGAGCATTGAAGGCACCTGGGAAATGAGGCCACAGACTCAAAGTTACTCT
CCTTCCCCCTACCTGGGCCAGTGAAATAGAAAGCCTTTCTATTTTTTGGTGCGGGAGGGAAGACCTCTCACTTAG
GGCAAGAGCCAGGTATAGTCTCCCTTCCCAGAATTTGTAAGTGAAGATCTTTTCTTTTCTTTTGGTAA
CAAGACTTAGAAGGAGGGGCCAGGCATTTCTGTTTGAACCCCTGTCATGATCACAGTGTGAGAGACGCGTCCTC
TTTCTTGGGGAAGTTGAGGAGTGCCCTTCCAGAGCCAGTAGCAGGCAGGGGTGGGTAGGCACCCTCCTTCTGTTT
TTATCTAATAAAATGCTAACCTGCCCTGAGTTTCCATTACTGTGGGTGGGGTTCCCCTGGGCCAAACAGTGATTT
GTCTCCCTCAATGTGTACACCGCTCCGCTCCACCACCGCTACCACAAGGACCCCGGGGCTGCAGCCTCCTCTT
TCTGTCTCTGATCAGAGCCGACACCAGACGTGATTAGCAGGCGCAGCAAATTCAATTTGTTAAATGAAATTGTAT
TTTGAAAAAAAAAAAAAAAAA

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FIGURE 898

MLYFSLFWAARPLQRCGQLVRMAIRAQHSNAAQTQTGEANRGWTGQESLSDSDPEMWELLQREKDRQCRGLELIA
SENFCSRAALEALGSCLNKYSEGYPGKRYYGGAENVDEIELLCQRRALEAFDLDPAQWGVNVQPYSGSPANLAV
YTALLQPHDRIMGLDLPDGGHLTHGYMSDVKRISATSIFFESMPYKLNPKTGLIDYNQLALTARLFRPRLIIAGT
SAYARLIDYARMREVCDEVKAHLLADMAHISGLVAAKVIPSPFKHADIVTTTTHKTLRGARSLIFYRKGVKAVD
PKTGREIPYTFEDRINFVFP SLQGGPHNHAIAVAVALKQACTPMFREYSLQVLKNARAMADALLERGYSLVSG
GTDNHLVLVDLRPKGLDGARAERVLELVSITANKNTCPGDRSAITPGGLRLGAPALTSRQFREDDFRRVVD IDE
GVNIGLEVKSKTAKLQDFKSFLDKDSETSQR LANLRQVEQFARAFPM PGFDEH

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FIGURE 899

[illegible]

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FIGURE 900

MHHNKQATENAKEEVRRILGLLDAYLKTRTFLVGERVTLADITVVCTLLWLYKQVLEPSFRQAFPTNTRWFLT
NQPQFRAVLGEVKLCEKMAQFDAKKFAETQPKKDTPRKEKGSREEKQKPQAERKEEKAAAPAPEEEMDECEQAL
AAEPKAKDPFAHLPKSTFVLDEFKRKYSNEDTLSVALPYFWEHFDKDGWSLWYSEYRFPEELTQTFMSCNLITGM
FQRLDKLRKNAFASVILFGTNNSSSISGVWVFRGQELAFPLSPDWQVDYESYTWKLDPGSEETQTLVREYFSWE
GAFQHVKGAFNQGKIFK

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FIGURE 901A

CAAGCCAATTATGGCTCCCTTTCCCAATGGTAGTTTGTGAATGGCTTTAATTCGCCAGGATCTTATAAAACAAAT
GCTGCTGCTATGAATATGGGTCGACCATTCCAAAAAATCGTGTGAAGCCTCAGTTTAGGTCATCTGGTGGTTCA
GAACACTCAACAGAGGGCTCTGTATCCTTGGGGGATGGACAGTTGAACAGATATAGTTCAAGAACTTTCCAGCT
GAACGGCATAACCCACAGTAAC TGGGCATCAGGAGCAAAC TACCTCAGAAGGAGACTTCCACTTTGCAGGTG
GAACAGAAATGGGGACTATGGTAGGGG CAGGAGAACTCTCTTCAGAGGTCGAAGACGACGAGAAGATGACAGGATC
TCAAGACCTCATCCTTCAACAGCTGAATCAAAGGCTCCAACACCAAAGTTTGACTTATTAGCCTCAAATTTTCCA
CCTTTACCTGGAAGTTCATCAAGAATGCCAGGTGAAC TCGTTTGGAGAATAGGATGTCTGATGTTGTTAAAGGTG
TCTACAAAGAAAAGGATAATGAAGAGTTGACAATTAGTTGCCCAGTGCCCTGCAGATGAGCAGACAGAATGCACTT
CTGCCCAGCAACTCAATATGAGTACCAGTTCTCCATGTGCTGCTGAGCTTACTGCATTAAAGCACAACTCAGCAAG
AAAAGGATCTAATAGAAGATTCTCTGTTT CAGAAGGATGGTCTCAATCAGACAAC TATACCAGTTTCTCCTCCAA
GTACTACAAAGCCATCGAGGGCAAGTACTGCTTCAACCATGTAATAATAACATAAATGCAGCTACAGCTGTGGCTC
TACAGGAACCCGAAAGTTAAGTTATGCTGAAGTGTGCCAGAAGCCCCCTAAAGAGCCATCTTCAGTTCTTGTGC
AGCCACTACGGGAAC TCGCTCCAATGTGGTGTCTCCACCAA AAAATGAAGACAATGGAGCTCCTGAGAACTCCG
TTGAGAAACCACATGAGAAGCCAGAAGCAAGGGCTAGTAAGGATTATTCTGGCTTCCGAGGCAATATAATCCCCA
GGGGAGCAGCAGGAAAAATCAGGGAACAGAGACGCCAGTTTAGCCATAGGGCTATACCTCAGGGAGTGACTCGAC
GTAATGGCAAAGAGCAATATGTGCCACCCAGATCACC AAAGTAA AAAAAACAACAAACTATTCAAAAAC TTTCACTC
TCTTCCCATTAAACTTGAAC TGTGGCTATATTGAACTGTTTGGAGGGGAGGGGGTAGCCAGGAAGGAAACAAGA
GAAAGTACGTCCATTTCAATTATGGATTTTGGAGTTGTGAGTGATAGGATCCCAAATTCATCTCTAATGTGGTTT
TTAAATGCTGGAGGATTCCAATCAATATAAATATATATATATATACACACATATATAAAAAGTATAATTTT
TCTATTTTGTGTTTTGGTTTTAATTTGCAGAGATTTGCTGCCAGGAATCAATTTTGAGGGTTCAGATTTAGCTTG
GAAGAAAAAAAAGAAACATACATCCTTCAGTATAGGAGATGAGGGAATGAGAGAAAATATTTTTTGAAGAAGCAT
TTCTGTAAAATTAGAAATTACTTTTTTTAATCTATTTAAAGTTTGGCTTGAAGAATGCCATCTCTGACTATATGG
CCTTGATTGCAAAGCAGATCAGTGGCTGGGGTGCCTGTTGTGGGTGTGAGTGTGTACAAGAGCGATTGAAGCCA
AATCTGTTGTGATGTTAGTAAATGATTTGAAAAC TGAATGTAATACTTGAGTAGATTTTTTTTTCTAGTTTGAAA
TTTAGTCTGTCTTTTTGACCTTACTAATATTTCAATTAAACAAGTTGTAAAAC TCTGATTGTACTTAGAGATGTGA
CTACCAATCAGTTTGATACTCAAGGAAAGGGGGTATTCAAGAAATTGAAAATTTCACTCTGGACCTCAGTGCAT
CGGTCAAATGGATTT CAGAGGTTTAAACTTCCCTGTGATTCCCCCTGAATACCCCCAAAATGAGAAACAAAATTT
TTTTTCTTACTCCATTTGTTACTCTCTGTTCTTTGACTGCCACCCACAGAAAAGCAAATAACCAACTACCTAC
TCAATTGTGTGTTTGTAAATTGCTTTGAGCAGTCTAGTCAAATCATATAAATTGTTCTAAATTT CAGAATTGAACA
TTGAAGTATTAAC TCTCTGTTTACACATTTAGAATTTTAGCTCCCAAGATGGTAGGGCAGACTGACCGTACAGT
AATTTATTTGTGCTTAGTGTTAAAGATTAAGCATAGTAACTGACTCTTAAGTGTTAAATAATGTAGAAGTAAAA
AATTTTTTTTTAAAGGCTTAATTTGGGAGGGGGGACTTATTTCTGTTTACAGTGTATTACCTTCCTTCCCTCCTCT
TCTCCCCCACACCCAACAAAATACAGTTTGGAAT TCACTGAAACAGTACCAGCAAGTCATGAGATTTTTTAGTA
AAGATGAGAAAGATGGTTGAAGAAAATTAGTGCATAATTTCTCAGTGAATAAAGTTGTAGCTCTCATATACTAAA
TAGACAAGTTTACATGCTGTTATTTAGAAAATGACTAAAATATTA AAAACCGTGTGTGTTAATCTGTTTTAAGT
CATACCATGTT CAGAGTTCTATGTAAGGTGGGTTTTATTTTTCTTTTAAGGGATAGTTTGTAAATAGTAAGAACTG
TCCCATATGTTAGTAAATTACATATGTACAAATTGAAACTGTAAATTGTGAACACTGGAAAGCACCATTGTGACA
TAGAGTAAACATCTTAGTAATATATTAAAGTGAATGTAAATGGTGGTTAAATTACATTACTGTGAAATTCATCT
TCCAAC TCTAAGTTAAGCTTTGGAGATACATGTTAGTGGTTAACTGTTAAGAGCTTTGAAAACACTGCACATATC
TGTACAAGCCAGAATTACTATTTCTTTGACTTATTATTAGCTTGGCAGTTGCTTTTGATTTGATTGTTTTATGAC
ATGGTATACTACTATATTTACTCAGTTTGAAACTATTCAATTTCTACACACTATTTTTTAAAAATTGCCTACTAGGT
GAAACATAACAATAAAACTACCTGTGCTGAAATTTGGGGGAAGTTTAGGTCCTTTAAAAAACATATTAATCATT
GACTACATCTATGATAAAAGTGCTTATTTTGGTTTACTAAGATAATGCAGTTGGTGAAATGATAAACGTTTTAA
GTGTTAACATCCTTTGAATGCGTTGGATTT CAGAGAATAAACATTTTGTAAAAATCACTTGGTAAGGATTATAAA
CTTAATTACTGCACTTAAATGAAACATTACTTTTTTTAAACAATGTGTCACAAATGTAGGTCTGTATTACTTGT
ATGCTTGTGTGACTTACTGTTAGTCCAGCTCTAAAAATTTAAAGGTTGTAAATTGAAATACAAGAAAAGAGCCTTC
TTTTAGAAAGAAAGCAAGTATATTTTTGCTTTTACTTCAAATGTTATTTAAAGTAGAAATTTAATTTGTAGATATA
ACCTTTAAAAATTTTCTCATTAAAGACAATGTTTTTAATTTAATTTGCCTCATTACATCTAATAGTTCCCATTTGA

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FIGURE 901B

TGGCATGTATAGGGAAGAGTGANNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNAATATTTATATATATTCACAGTATG
TATTTAGCATTTATTTTATTACAGCAGATTTAAAGTTTGTATCTAAATAATGCCTATGAGTTGTGTGAAGCTCTT
GGCTTTTTTCCAACGTTACTTTGTAACATAAGAGGTGGATGTTTCATTGTAGTTTATTTATTTGGTTCTTTAGAT
GGAGGAATTTAAAAAATCAAATTTTTCTCTTCACCTTTATGACTTGACATTTCCCTTGATCTGTTGGAGGCTAAAA
GTAGGTATAAATGATATTGAATGTTGGGTATAGTGATACTCTGCCATAGTTCTTACTGCATGAAGAGAACAAGAG
TCACACAAGTTCACCACTTTGCACTTCATAGAGAAGGTACATAGAGACATTGCAAAACCTGTCTCCATTTGCTAT
CCTGATAATTAAGGTTTTTCATAATACCTAGGGCCTGTCTCTGAGTAATTTTAATTTTGCCAAATACACTGACATT
TAAAAATAGTGATCCATCTAAATTTTTTTCAGCTGGGTTTTGAGGAATATAAGAGCTTCAATGATAAAGGTTTGT
TGTAAGTGTCTTATGTGCTGAATTTGCAGATGATCAGATGCTGTGCAGAATTCTGATTTATTTTGTTCCTAAA
ATTAAGATAGCTTGAATATTATTTACATTCCTTTTTCTTTTTTAAATAAACAGGTTTGCTTTGGAAAGGCTTAA
TGATGGAATGTTAGCATCTTCACTAGGGTAAAGAAGAACAAAAAGAATGTTGCTGGAACGTAAAATAGTATTTAA
AAGTTAATGAACACTTCTCTAGTTTTCTTAGTTATGGCCTTAATAATTAGTCTCTTGGCTTAAATGTCCACTGGT
TTTACTTTGACACAGTTGAACAACACTGGGGTTAAGTCTCTGGTATTTAGGCTGGCAATATATATATTAACCATA
TTTTAAAAGTACCAATTTTGTTTTTTACAGAAAAGATAAAACTCAAAAAGAGAACAGTGTATTCCTTCTGAGGGCT
TTTATAAATTATTAACATAATATATGATGGATTTTTTCCCTAATTTTTTATATTTTCCCTTACAATTTTGGTGGCCA
TTAATTTAACTTTAGGCTTTTGGGCATATGCTAGTCTGAGCTTCCGAAAAGATACATATATGTTTCCCTTTTCAT
TAGCTGAATGAGGATATTTTAAGAAGTTGAAAGAGAATTTATTTTCAAGTTGTGAGTAAATCCTCCTTTGAAATT
CACCTGATTATTAGATAACTTAAAGTTTATTTTTTAAAAGCTGACAACTTTTTATGAATCTTCGAGTTGACAGTTC
CTAAAAGCGTAACTCAGATATTAATGGGCTGTGTATTAAATGGTTTTATTTTCAGTTTTGCAGCACAGAACACTG
TTGAAATATCCATATCAACTTGATTTTTTTAACCTAATTCAGGTGTCCTTTGCATCTCTTAAATGTTGGGGGTGG
GGGTCAGAGCCAGTTATCCGGCTTCTGTTTTGTGCGATTGCTTAGATTTGTTCCCTGTTGTCAAACTGTTACCCCC
AAAAATTGGTGTGACACATGCTCATGCATAAAATGTTAAAATGAGTACATCCTTGTATTTGTATTTGTTTTCAACA
TCGCCAAGGTGCTATGGGAATTAACAAAATTAGAAAAAAAATAAAATTATTAAAAAGCAGAAAAA

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FIGURE 902

MNMGRPFQKNRVKPPFRSSGGSEHSTEGSVSLGDGQLNRYSSRNFP AERHNPTVTGHQEQTYLQKETSTLQVEQN
GDYGRGRTLFRGRRRREDDRISRHPSTAESKAPTPKFDLLASNFPPLPGSSSRMPGELVWRIGCLMLLKVSTK
KRIMKSTISCPVPADEQTECTSAQQLNMSTSSPCAAELTALSTTQQEKDLIEDSSVQKDGLNQTTIPVSPSTTK
PSRASTASPCNNNINAATAVALQEPRKLSYAEVCQKPPKEPSSVLVQPLRELRSNVVSPTKNEDNGAPENSVEKP
HEKPEARASKDYSGFRGNIIPRGAAGKIREQRRQFSHRAIPQGVTRRNGKEQYVPPRSPK

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FIGURE 903

AAAAGGGAAGCCTGCAACAAGTTAAGCTGAAGACCGAAGCAAGAGCTGGTTCAGCCTGCCAGTGGAGACACTGGG
CCCGGCATCCAGGATGGACCCAGAATCTGAGAGAGCCCTGCAGGCCCTCACAGCCCCTCCAAGACAGATGGGAA
AGAATTAGCTGGGACCATGGATGGAGAAGGGACGCTCTTCCAGACTGAAAGCCCTCAGTCTGGCAGCATTCTAAC
AGAGGAGACTGAGGTCAAGGGCACCTGGAAGGTGATGTTTGTGGTGTGGAGCCTCCTGGCCCAGGAGACACAGT
AGTCCAGGGAGACCTGCAGGAGACCACCGTGGTGACAGGCCTGGGACCAGACACACAGGACCTGGAAGGCCAGAG
CCCTCCACAGAGCCTGCCTTCAACCCCCAAGCAGCTTGGTTCAGGGAGGAGGGCCGCTGCTCCAGCAGTGACGA
TGACACCGACGTGGACATGGAGGGTCTGCGGAGACGGCGGGGCCGGGAGGCCGGCCACCTCAGCCCATGGTGCC
CCTGGCTGTGGAGAACCAGGCTGGGGGTGAGGGTGACGGCGGGGAGCTGGGCATCTCCCTCAACATGTGCCTCCT
TGGGGCCCTGGTTCTGCTTGGCCTGGGGGTCTCTCTTCTCAGGTGGCCTCTCAGAGTCTGAGACTGGGCCCAT
GGAGGAAGTGGAGCGGCAGGTCTCTCCAGACCCGAGGTGCTGGAAGCTGTGGGGGACAGGCAGGATGGGCTAAG
GGAACAGCTGCAGGCCCCAGTGCCTCCTGACAGTGTCCCCAGCCTGCAAAACATGGGTCTTCTGCTGGACAAGCT
GGCCAAGGAGAACCAGGACATCCGGCTGCTGCAGGCCAGCTGCAGGCCCAAAGGAAGAGCTTCAGAGCCTGAT
GCACCAGCCCAAAGGGCTAGAGGAGGAGAATGCCAGCTCCGGGGGGCTCTGCAGCAGGGCGAAGCCTTCCAGCG
GGCTCTGGAGTCAGAGCTGCAGCAGCTGCGGGCCCCGGCTCCAGGGGCTGGAGGCCGACTGTGTCCGGGGCCCAGA
TGGGGTGTGCCTCAGTGGGGATAGAGGCCACAGGGTGACAAGGCCATCAGGGAGCAAGGCCCCAGGGAGCAGGA
GCCAGAACTCAGCTTCCCGAAGCAGAAGGAACAGCTGGAGGCTGAGGCACAGGCATTAAGGCAAGAGTTAGAGAG
GCAGCGACGGCTGCTGGGGTCTGTACAGCAGGATCTGGAGAGGAGCTTGCAGGATGCCAGCCGCGGGGACCCAGC
TCATGCTGGCTTGGCTGAGCTGGGCCACAGATTGGCCAGAACTGCAGGGCCTGGAGAACTGGGGCCAGGACCC
TGGGGTCTCTGCCAATGCCTCAAAGGCCTGGCACCAGAAGTCCCACTTCCAGAATTCTAGGGAGTGGAGTGGAAA
GGAAAAGTGGTGGGATGGGCAGAGAGACCGGAAGGCTGAGCACTGGAACATAAGAAGGAAGAATCTGGCCGGGA
AAGGAAGAAGAACTGGGGAGGTGAGGAGGACAGGGAGCCAGCAGGAAGGTGGAAGGAGGGCAGGCCAAGGGTGA
GGAGTCGGGGAGCAAGAAGGAGGGCAAGCGACAGGGCCCCAAGGAACCCCCAAGGAAAAGTGGTAGCTTCCACTC
CTCTGGAGAAAAGCAGAAGCAACCTCGGTGGAGGGAAGGGACTAAGGACAGCCATGACCCCTGCCATCCTGGGC
AGAGCTGTTGAGGCCCAAGTACCGGGCACCCAGGGCTGCTCAGGTGTGGACGAGTGTGCCCGGCAGGAGGGCCT
GACTTTCTTTGGCACAGAGCTAGCCCCAGTGCGGCAACAGGAGCTGGCCTCTCTGCTAAGAACATACTTGGCACG
GCTGCCCTGGGCTGGGCAGCTGACCAAGGAGCTACCCCTCTCACCTGCTTTCTTTGGTGGAGATGGCATCTTCCG
TCATGACCGCCTCCGCTTCCGGGATTTTGTGGATGCCCTGGAGGACAGCTTGGAGGAGGTGGCTGTGCAACAGAC
AGGTGATGATGATGAAGTAGATGACTTTGAGGACTTCATCTTCAGCCACTTCTTTGGAGACAAAGCACTGAAGAA
GAGGTGAGGGAAGAAGGACAAGCACTCACAGAGCCCAAGAGCTGCGGGGCCAGGGAGGGGCACAGCCATAGCCA
CCACCACCACCACCGGGCTGACACCCCTGCCCCACAGGGAATGGCCTTGGCCTGGCCCAGCCCAAGATCCCAGCG
TTATCTAACTCCTGGAGGGTGGACTCTGTCTCGCTTGTGTTTGGTGTCTCAGATATCTTTCACACAGTAGAGCAA
AATCACCAGCCCTGCACTGATGTCACTTTATGTAGAAAAAGGCCTTAGCTGGACCTGTGTTGCCGTCTATGCAAA
TGCATGCAAATACTCCAGGCCCTGGGATGTGGGCTTGTGTTTTGTCACTGTGAAGGGGGAGATGGGAGAGGAGCC
TGTTTTGGGGTGGGGTCTGGGGAAGGCAATCTGATTCTGAAGCTAAAGAGCTTTCATCCTCTTGAGTGTATGTCC
CCATAGTGGGCCCCCTTGACCCACATGCTGACCGGTGCCTTGGGATTGACTAGAGTTGCTGGCTCGAGGCCACG
ACGAGGACTTACCTGGGGTTTTGTTAGGTTTGAAGCAGCTGTCCCTAGGGGGTGAAGTCCCCCCCCCTTTTTTT
TTTTACCCCTGCTTCTCCACGGCTTACCTCCCTATGTGAAGTGTAGACTCAGATCCCAATAAAGTGCTGTTGC
AGCTATGATGCTAGGTGGTTTTCTAAGCACAGGGGACACCCACACCCCTGCCTGAATGGATGGGTCCATCCCAG
GCACTGGTACTTGGCCCCCTTGTCTGTATCCCCCTTGGCCCTGCCTTGCCCTTCCAACAACCCCTAGGCCCTTG
AGAAGCTGATACTTCTCCTTTTGTCTACAGCTGCCTTGGCCCCACCCCTGGGAGATGTAGCAAATTGAGTGTGGG
TTTTGGAGTCTGAGCCTCAGGCTCAAATCCAGGCCAAGTGATCTTGGGCAAGTTAATCTCTGGGGACTTTGGGT
TCTTATCCTCAAAAAGGCGATGGAAGGGCTGGGGAAGTGATTAAATAAAGCAACGCAAGAAAAATGCC

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FIGURE 904

MDPESERALQAPHSPSKTDGKELAGTMDGEGTLFQTESPQSGSILTEETEVKGTLEGDVCGVEPPGPGD TVVQGD
LQETTVVTGLGPD TDLEGQSP PQSLPSTPKAAWFREEGRCSSSDDDTDV DMEGLRRRRGREAGPPQPMVPLAVE
NQAGGEGAGGELGISLNMCLL GALVLLGLGVLLFSGGLSESETGPMEEVERQVLPDPEVLEAVGDRQDGLREQLO
APVPPDSVPSLQNMGLLLDKLAKENQDIRLLQAQLQAQKEELQSLMHQPKGLEEENAQLRGALQQGEAFORALE
ELQQLRARLQGLEADCVRGPDGVCLSGDRGPQGDKAIREQGPREQEPELSFPKQKEQLEAEQAALRQELERQRL
LGSVQQDLERSLQDASRGDPAHAGLAELGHRLAQKLQGLN WGQDPGV SANASKAWHQKSHFQNSREWSGKEKWW
DGQRDRKAEHWKHKKEESGRERKKNWGGQEDREPAGRWKEGRPRVEESGSKKEGKRQGPKEPPRKSGSFHSSGEK
QKQPRWREGTKDSDPLPSWAELLRPKYRAPQGCSGVDECARQEGLTFFGT ELAPVRQQELASLLR TYLARLPWA
GQTKELPLSPAFFGEDGIFRHDRLRFRDFVDALEDSLEEVAVQQTGDDDEVD DFEDFIFSHFFGDKALKKRSGK
KDKHSQSPRAAGPREGHSHSHHHHHRG

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FIGURE 905

CGAGGATGTGCGTGGGGGCTCGGCGGCTGGGCCGCGGGCCGTGTGCGGCTCTGCTCCTCCTGGGCCTGGGGCTGA
 GCACCGTGACGGGGCTCCACTGTGTCGGGGACACCTACCCCAGCAACGACCGGTGCTGCCACGAGTGCAGGCCAG
 GCAACGGGATGGTGAGCCGCTGCAGCCGCTCCCAGAACACGGTGTGCCGTCCGTGCGGGCCGGGCTTCTACAACG
 ACGTGGTCAGCTCCAAGCCGTGCAAGCCCTGCACGTGGTGTAACCTCAGAAGTGGGAGTGAGCGGAAGCAGCTGT
 GCACGGCCACACAGGACACAGTCTGCCGCTGCCGGGCGGGCACCCAGCCCCTGGACAGCTACAAGCCTGGAGTTG
 ACTGTGCCCCCTGCCCTCCAGGGCACTTCTCCCCAGGCGACAACCAGGCCTGCAAGCCCTGGACCAACTGCACCT
 TGGCTGGGAAGCACACCCTGCAGCCGGCCAGCAATAGCTCGGACGCAATCTGTGAGGACAGGGACCCCCAGCCA
 CGCAGCCCCAGGAGACCCAGGGCCCCCGGCCAGGCCCATCACTGTCCAGCCCACTGAAGCCTGGCCCAGAACCT
 CACAGGGACCCTCCACCCGGCCCGTGGAGGTCCCCGGGGGCGGTGCGGTTGCCGCCATCCTGGGCCTGGGCCTGG
 TGCTGGGGCTGCTGGGGCCCCCTGGCCATCCTGCTGGCCCTGTACCTGCTCCGGAGGGACCAGAGGCTGCCCCCG
 ATGCCACACAAGCCCCCTGGGGGAGGCAGTTTCCGGACCCCCATCCAAGAGGAGCAGGCCGACGCCCCACTCCACC
 TGGCCAAGATCTGACCTGGGGCCACCAAGGTGGACGCTGGGGCCCCGCCAGGCTGGAGCCCCGAGGGTCTGCTGGG
 CGAGCAGGGCAGGTGCAGGCCGCTGCCCCGCCACGCTCCTGGGCCAACTCTGCACCGTTCTAGGTGCCGATGGC
 TGCCCTCCGGCTCTCTGCTTACGTATGCCATGCATACCTCCTGCCCCGCGGGACCACAATAAAAAACCTTGGCAGAC
 GGGAGTCTCCGACCGGCAAAAAAAAAAAAAAAAAA

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FIGURE 906

MCVGARRLGPGCAALLLLGLGLSTVTGLHCVGDTYPSNDRCCHECRPGNGMVSRCRSQNTVCRPCGPGFYNDV
VSSKPCKPCTWCNLRSGSERKQLCTATQDTVCRCRAGTQPLDSYKPGVDCAPCPPGHFSPGDNQACKPWTNCTLA
GKHTLQPASNSSDAICEDRDPPATQPQETQGPPARPITVQPTAWPRTSQGPSTRPVEVPGGRAVAAILGLGLVL
GLLGPLAILLALYLLRRDQRLPPDAHKKPPGGGSFRTPIQEEQADAHSTLAKI

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FIGURE 907

ATGACCAAAGCTGATCTCATAAATAATTTGGGAACCATTGCCAAGTCTGGTACTAAAGCATTTCATGGAGGCTCTT
CAGGCTGGTGCAGACATCTCCATGATTGGGCAGTTTGGTGTGGCTTTTATTCTGCCTACTTGGTGGCAGAGAAA
GTGGTTGTGATCACAAAGCACAAACGATGATGAACAGTATGCTTGGGAGTCTTCTGCTGGAGGTTCCTTCACTGTG
CGTGCTGACCATGGTGAGCCCATTGGCAGGGGTACCAAAGTGATCCTCCATCTTAAAGAAGATCAGACAGAGTAC
CTAGAAGAGAGGCGGGTCAAAGAAGTAGTGAAGAAGCATTCTCAGTTCATAGGCTATCCCATCACCCCTTTATTG
GAGAAGGAACGAGAGAAGGAAATTAGTGATGATGAGGCAGAGGAAGAGAAAGGTGAGAAAGAAGAGGAAGATAAA
GATGATGAAGAAAAGCCCAAGATCGAAGATGTGGGTTCAGATGAGGAGGATGACAGCGGTAAGGATAAGAAGAAG
AAAATAAGAAGATCAAAGAGAAATACATTGATCAGGAAGAACTAAACAAGACCAAGCCTATTTGGACCAGAAAC
CCTGATGACATCACCCAAGAGGAGTATGGAGAATTCTACAAGAGCCTCACTAATGACTGGGAAGACCACTTGGCA
GTCAAGCACTTTTCTGTAGAAGGTGAGTTGGAATTCAGGGCATTGCTATTTATTCCTCGTCGGGCTCCCTTTGAC
CTTTTTGAGAACAAGAAGAAAAAGAACATCAAACCTCTATGTCCGCCGTGTGTTTCATCATGGACAGCTGTGAT
GAGTTGATAACAGAGTATCTCAATTTTATCCGTGGTGTGGTTGACTCTGAGGATCTGCCCTGAACATCTCCCGA
GAAATGCTCCAGCAGAGCAAATCTTGAAAGTCATTTCGAAAAACATTGTTAAGAAGTGCCTTGAGCTCTTCTCT
GAGCTGGCAGAAGACAAGGAGAATTACAAGAAATTCIATGAGGCATTCTCTAAAAATCTCAAGCTTGGAATCCAC
GAAGACTCCACTAACC GCCGCCGCTGTCTGAGCTGCTGCGCTATCATACCTCCCAGTCTGGAGATGAGATGACA
TCTCTGTCAGAGTATGTTTCTCGCATGAAGGAGACACAGAAGTCCATCTATTACATCACTGGTGAGAGCAAAGAG
CAGGTGGCCAACCTCAGCTTTTGTGGAGCGAGTGCAGAAACGGGGCTTCGAGGTGGTATATATGACCGAGCCCATT
GACGAGTACTGTGTGCAGCAGCTCAAGGAATTTGATGGGAAGAGCCTGGTCTCAGTTACCAAGGAGGGTCTGGAG
CTGCCTGAGGATGAGGAGGAGAAGAAGAAGATGGAAGAGAGCAAGGCAAAGTTTGAGAACCTCTGCAAGCTCATG
AAAGAAATCTTAGATAAGAAGGTTGAGAAGGTGACAATCTCCAATAGACTTGTGTCTTCACCTTGCTGCATTGTG
ACCAGCACCTACGGCTGGACAGCCAATATGGAGCGGATCATGAAAGCCCAGGCACTTCGGGACAACCTCCACCATG
GGCTATATGATGGCCAAAAGCACCTGGAGATCAACCCTGACCACCCCATTTGTGGAGACGCTGCGGCAGAAGGCT
GAGGCCGACAAGAATGATAAGGCAGTTAAGGACCTGGTGGTGTGCTGTTTGAACCGCCCTGCTATCTTCTGGC
TTTTCCCTTGAGGATCCCCAGACCCACTCCAACCGCATCTATCGCATGATCAAGCTAGGTCTAGGTATTGATGAA
GATGAAGTGGCAGCAGAGGAACCCAATGCTGCAGTTCTGATGAGATCCCCCTCTCGAGGGCGATGAGGATGCG
TCTCGCATGGAAGAAGTCGATTAGGTTAGGAGTTCATAGTTGGAAAACTTGTGCCCTTGATAGTGTCCCCATGG
GCTCCCACTGCAGCCTCGAGTGCCCTGTCCACCTGGCTCCCCCTGCTGGTGTCTAGTGTTTTTTT

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FIGURE 908

MTKADLINNLGTIAKSGTKAFMEALQAGADISMIGQFGVGFYSAYLVAEKVVVITKHNDDEQYAWESSAGGSFTV
RADHGEPIGRGTKVILHLKEDQTEYLEERRVKEVVKKHSQFIGYPITLYLEKEREKEISDDEAEEEKGEKEEEDK
DDEEKPKIEDVGSDEEDDSGDKKKKTKKIKEKYIDQEELNKTPIWTRNPDDITQEEYGEFYKSLTNDWEDHLA
VKHFSVEGQLEFRALLFIPRRAPFDLFENKKKKNNIKLYVRRVFIMDSCDELIPEYLNFIIRGVVDSEDLPNISR
EMLQQSKILKVIRKNIVKKCLELFSELAEDKENYKKFYEAFSKNLKLGIHEDSTNRRRLSELLRYHTSQSGDEMT
SLSEYVSRMKETQKSIYYITGESKEQVANSFAVERVRKRGFEVVYMTPEIDYCVQQLKEFDGKSLVSVTKEGLE
LPEDEEEKKKMEESKAKFENLCKLMKEILDKKVEKVTISNRLVSSPCCIVTSTYGTANMERIMKAQALRDNSTM
GYMMAKKHLEINPDHPIVETLRQAEADKNDKAVKDLVLLFETALLSSGFSLEDPQTHSNRIYRMIKLGLGIDE
DEVAAEEPNAAVPDEIPPLEGDEDASRMEEVD

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FIGURE 909

ACTCTTCTGGTCCCCACAGACTCAGAGAGAACCCACC**ATGG**TGCTGTCTCCTGCCGACAAGACCAACGTCAAGGC
CGCCTGGGGTAAGGTCGGCGCGCACGCTGGCGAGTATGGTGCGGAGGCCCTGGAGAGGATGTTCTGTCTTCCC
CACCACCAAGACCTACTTCCCGCACTTCGACCTGAGCCACGGCTCTGCCCAGGTTAAGGGCCACGGCAAGAAGGT
GGCCGACGCGCTGACCAACGCCGTGGCGCACGTGGACGACATGCCCCAACGCGCTGTCCGCCCTGAGCGACCTGCA
CGCGCACAAAGCTTCGGGTGGACCCGGTCAACTTCAAGCTCCTAAGCCACTGCCTGCTGGTGACCCTGGCCGCCCCA
CCTCCCCGCCGAGTTCACCCCTGCGGTGCACGCCTCCCTGGACAAGTTCTTGCTTCTGTGAGCACCGTGCTGAC
CTCCAAATACCGT**TAAG**CTGGAGCCTCGGTAGCCGTTCTCTCCTGCCGCTGGGCCTCCCAACGGGCCCTCTCCC
CTCCTTGACCGGCCCTTCCTGGTCTTTGAATAAAGTCTGAGTGGGCGGC

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FIGURE 910

MVLSPADKTNVKAAGKVGAGHAGEYGAEALERMFLSFPTTKTYFPHFDLSHGSAQVKGHGKKVADALTNAVAHV
DMPNALSALSDLHAHKLRVDPVNFKLLSHCLLVTLAAHLPAEFTPAVHASLDKFLASVSTVLTSKYR

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FIGURE 911

GGAGTGC GGGGCGCCCGGCCAGGGGAGCCGCCACAGCC**ATGG**ATTGCAAAGATAGACCAGCTTTTCCAGTTAA
GAAGTTAATACAAGCCCGTCTGCCGTTTAAGCGCCTGAATCTTGTCCCAAAGGGGAAAGCCGATGACATGTCAGA
CGATCAGGGTACTTCTGTGCAAAGTAAAAGCCCCGATTTAGAGGCCTCTTTGGACACCTTGGAAAAACAAGTGTCA
TGTGGGTTCTGACATAGACTTTAGACCGAAACTTGTCAACGGGAAGGGTCCCTTAGATAACTTTTAAAGAAATAG
AATCGAAACCAGTATTGGCCAGAGCACAGTCATCATTGATTTGACAGAGGACTCGAATGAGCAGCCAGACAGTCT
TGTGGACCACAATAAACTAAATTCTGAAGCCTCTCCCTCCAGGGAGGCAATAAATGGCCAGCGAGAAGACACTGG
GGATCAGCAGGGGTTGTTGAAGGCCATTGACAACGACAAGTTGGCATTTCCTGGAGAGACCCCTTCAGACATTCC
TTGCAAAACAGAGGAGGAGGGTGTGGCTGTGGAGGTGCAGGGAGGAGAGGGCGACTCCCAGGAATGTTCCGCCACG
GAGCTGCCCCGAGCTGACGAGTGGCCCGAGAATGTGCCCCAGAAAGGAGCAGGACAGTTGGAGTGAAGCTGGGGG
CATCCTGTTCAAAGGGAAGGTGCCTATGGTGGTCTTGACAGGACATCTTGGCTGTGAGACCACCGCAAATCAAGTC
CCTTCCAGCCACACCCCAAGGCAAGAACATGACCCCTGAGAGTGAGGTGCTGGAATCTTTCCCCGAAGAAGACTC
TGTA CT CAGCCATTTCGTCCCTGAGCTCTCCCTCTTCCACCAGCTCGCCCCAGGGGGCCGCTGCTCCCCCAAAGCA
GCACAGCAGTACCAGTCCCTTCCCCACCTCCACGCCCTCCGCAGAATAACTAAGAAATTCGTCAAAGGCTCTAC
AGAGAAGAACAAGCTCAGACTGCAAAGAGATCAGGAGCGTCTGGGCAAGCAGCTCAAGTTACGTGCAGAAAGGGA
AGAAAAGGAGAAGCTGAAAGAGGAGGCCAAGCGGGCCAAGGAGGAGGCCAAGAAGAAGAAGGAGGAAGAGAAGGA
GCTTAAGGAAAAGGAGAGGCGGGAGAAGCGGGAGAAGGATGAGAAGGAGAAGGCGGAGAAGCAGCGGCTCAAGGA
GGAGCGGCGCAAGGAGAGACAGGAAGCCCTGGAGGCTAAACTTGAGGAAAAAGGAAAAAGGAAGAAGAGAAACG
GTTAAGAGAAGAAGAGAAGCGCATTAAGCAGAGAAGGCCGAAATCACGAGTTCTTCCAGAAACCAAAGACTCC
ACAGGCCCCCAAGACCCTGGCCGGCTCCTGTGGGAAGTTTGCCCCCTTTGAAATTAAAGAGCACATGGTCCTGGC
CCCTCGGCGTCGGACCGCTTTCATCCAGACCTCTGCAGTCAGCTGGACCAGCTCCTCCAGCAGCAGAGCGGCGA
GTTCTCCTTCTTGAAGACCTCAAAGGCCGGCAGCCCTGAGGTCCGGACCCACGCACGTTTCCACCCGGAATGC
AGATATTTTTTAACAGTGATGTCGTCATCGTGGAGCGTGGGAAGGGCGACGGTGTTCCTGAGAGGAGGAAGTTTGG
CAGGATGAAGCTCCTGCAGTTCTGTGAGAACCACCGGCTGCCTACTGGGGTACCTGGAATAAGAAGACGGCACT
CATCCGCGCGCAGAGACCCCTGGGCCCAGGACACGAAGCTCCTGGACTATGAGGTGGACAGTGATGAGGAGTGGGA
AGAAGAGGAGCCTGGGGAGTCCCTGTCCCACAGTGAGGGGGATGATGATGACGACATGGGAGAGGATGAAGATGA
GGACGATGGTTTTCTTTGTGCCCCATGGGTACCTGTCTGAGGACGAAGGTGTGACAGAGGAGTGTGCCGACCCTGA
GAACCATAAGGTCCGCCAGAACTGAAGGCCAAGGAGTGGGACGAGTTTCTGGCTAAGGGGGAAGCGCTTTCGCGT
CCTGCAACCTGTGAAGATCGGCTGCGTGTGGGCGGCTGACAGAGACTGCGCAGGCGATGACCTGAAGGTACTGCA
GCAGTTTCGAGCCTGCTTCTTGAGACCCCTGCCGGCCAGGAGGAGCAGACGCCCAAGGCCTCCAAGCGGGAGAG
GAGAGACGAGCAGATCCTGGCCAGCTGCTGCCGCTCCTGCACGGCAATGTGAACGGGAGCAAGGTCATCATCCG
GGAGTTCCAGGAGCACTGCCGCCGGGGACTGCTCAGCAACCACACCGGCAGCCCGCGGACGCCCTCCACCACCTA
CCTGCACACCCCCACCCCCAGCGAGGATGCCGCCATCCCCTCTAAGTCCCGGCTCAAGCGGCTCATTTCCGAGAA
CTCAGTGTATGAGAAGCGGCCTGACTTCAGGATGTGCTGGTACGTGCACCCGCAGGTGCTACAGAGCTTCCAGCA
GGAGCACCTGCCCCGTGCCGTGCCAGTGGAGCTATGTGACATCGGTGCCCTCGGCCCCCAAAGAGGACAGTGGCAG
CGTCCCCTCCACGGGGCCAGCCAGGGCACTCCCATCTCGCTGAAGAGGAAGTCAGCGGGCAGCATGTGCATCAC
CCAATTCATGAAGAAGCGCAGGCACGACGGCCAGATTGGTGTGTAAGACATGGACGGCTTCCAGGCAGACACGGA
GGAGGAGGAAGAGGAGGAGGGCGACTGTATGATCGTGGATGTCCCGGATGCTGTGGAGGTCCAAGCCCCGTGTGG
AGCCGCTTCCGGAGCTGGGGGTGGTGTGGGGGTGGACACCGGCAAGGCCACCTGACCGCGAGCCCACTGGGTGC
ATCCT**TGAG**AGCAGGGGTGACGTATGTAGAACGCTTAGGGTGTCTCCCCACAGAGCAGATACTTGAACCGACTCA
ATTCTGTGTAAAGAGCACTTTGTCTGCTTACGGACCTCCCCAAAGTGTGCAGAGTTCTATATAGGATGCTGG
ATTAGTTCTTTGATATTTGTA AAAAT TCCCCAAGAGCCGCATATGAATCTGCCCTTTAATAAAGCATTATTGA
GATTGCTGGCCTATTGGGGAAGCTGCGGGCACAGGA

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FIGURE 912

MDCKDRPAFPVKKLIQARLPFKRLNLVPKKGADDMSDDQGTSVQSKSPDLEASLDTLENNCHVGSDIDFRPKLVN
 GKGPLDNFLRNRIETSIGQSTVIIDLTEDSNEQPDSDLVDHNKLNSEASPSREAINGQREDTGDQQGLLKAIQNDK
 LAFPGETLSDIPCKTEEEGVGCGGAGRRGDSQECSPRSCELTSGPRMCPRKEQDSWSEAGGILFKGKVPMVVLQ
 DILAVRPPQIKSLPATPQGKNMTPSEVLESFPEEDSVLSHSSLSSPSTSSPEGPPAPPKQHSSTSPFPTSTPL
 RRITKKFVKGSTENKRLRLQDQERLGKQLKLRAEREEKEKLKEEAKRAKEEAKKKKEEEKELKEKERREKREKD
 EKEKAQKQRLKEERRKERQEALEAKLEEKRRKEEEKRLREEEKRIKAEKAEITRFFQKPKTPQAPKTLAGSCGKF
 APFEIKEHMLAPRRRTAFHPDLCSQLDQLLQQQSSEFSFLKDLKGRQPLRSGPTHVSTRNADIFNSDVVIVERG
 KGDGVPERRKFGRMKLLQFCENHRPAYWGTWNKKTALIRARDPWAQDTKLLDYEVDSDDEEWEEEEPGESESLHSEG
 DDDDDMGEDEDEDDGFFVPHGYLSEDEGVTEECADPENHKVQRKLKAKEWDEFKAGKRFRVLQPVKIGCVWAAD
 RDCAGDDLKVLQQFAACFLETLPQEEQTPKASKRERRDEQILAQLPLHGNVNGSKVIREFQEHCRGLLSN
 HTGSPRTPSTTYLHTPTSEDAAIPSKSRLKRLISENSVYEKRPDFRMCWYVHPQVLQSFQQEHLVPVCQWSYVT
 SVPSAPKEDSGSVPSTGPSQGTPI SLKRKSAGSMCITQFMKKRRHDGQIGAEDMDGFGADTEEEEEEEGDCMIVD
 VPDAVEVQAPCGAASGAGGGVGVDTGKATLTASPLGAS

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FIGURE 913

[illegible]

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FIGURE 914

MLYFSLFWAARPLQRCGQLVRMAIRAQHSNAAQTQTGEANRGWTGQESLSDSDPEMWELLQREKDRQCRGLELIA
SENFCSRAALEALGSCLNNKYSEGYPGKRYYGGAENVDEIELLCQRRALEAFDLDPAQWGVNVQPYSGSPANLAV
YTALLQPHDRIMGLDLPDGGHLTHGYMSDVKRISATSIFFESMPYKLNPKTGLIDYNQLALTARLFRPRLIIAGT
SAYARLIDYARMREVCDEVKAHLLADMAHISGLVAAKVIPSPFKHADIVTTTTHKTLRGARSGLIFYRKGVKAVD
PKTGREIPYTFEDRINFVFP SLQGGPHNHAIAAVAVALKQACTPMFREYSLQVLKNARAMADALLERGYSLVSG
GTDNHLVLVDLRPKGLDGARAERVLELVSITANKNTCPGDRSAITPGGLRLGAPALTSRQFREDDFRRVVD FIDE
GVNIGLEVKSKTAKLQDFKSFLKDSSETSQR LANLRQ RVEQFARA FPM PGFDEH

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FIGURE 915

CTCGCCCGTCCGGCGCACGCTCCGCCTCCGTCAAGTTGGCTCCGCTGTGCGGTGCGCGGCGTGAGCGGCAGCCGG
TCTGGACGCGCGGCCGGGGCTGGGGGCTGGGAGCGCGGCGCGCAAGATCTCCCCGCGCGAGAGCGGGCCCTGCCA
CCGGGCGAGGCCTGCGCCGCGATGGCAGAGATGGGCAGTAAAGGGGTGACGGCGGGAAAAGATCGCCAGCAACGTG
CAGAAGAAGCTCACCCGCGCGCAGGAGAAGGTTCTCCAGAAGCTGGGGAAGGCAGATGAGACCAAGGATGAGCAG
TTTGAGCAGTGCCTCCAGAATTTCAACAAGCAGCTGACGGAGGGCACCCGGCTGCAGAAGGATCTCCGGACCTAC
CTGGCCTCCGTCAAAGCCATGCACGAGGCTTCCAAGAAGCTGAATGAGTGTCTGCAGGAGGTGTATGAGCCCGAT
TGGCCCCGCGAGGATGAGGCAAACAAGATCGCAGAGAACAACGACCTGCTGTGGATGGATTACCACCAGAAGCTG
GTGGACCAGGCGCTGCTGACCATGGACACGTACCTGGGCCAGTTCCCCGACATCAAGTCACGCATTGCCAAGCGG
GGGCGCAAGCTGGTGGACTACGACAGTGCCCGGCACCACTACGAGTCCCTTCAAAGTCCAAAAAGAAGGATGAA
GCCAAAATTGCCAAGGCCGAGGAGGAGCTCATCAAAGCCCAGAAGGTGTTTGAGGAGATGAATGTGGATCTGCAG
GAGGAGCTGCCGTCCCTGTGGAACAGCCGCGTAGGTTTCTACGTCAACACGTTCCAGAGCATCGCGGGCCTGGAG
GAAAAGTTCACAAAGGAGATGAGCAAGCTCAACCAGAACCTCAATGATGTGCTGGTTCGGCCTGGAGAAGCAACAC
GGGAGCAACACCTTCACGGTCAAGGCCAGCCAGTGACAACGCGCCTGCAAAAGGGAACAAGAGCCCTTCGCCT
CCAGATGGCTCCCTGCCGCCACCCCGAGATCAGAGTCAACCACGAGCCAGAGCCGGCGGGCGGGGCCACGCC
GGGGCCACCTCCCCAAGTCCCATCTCAGCTCCGGAAGGGCCACCAGTCCCTCCGCCTCCCAAACACACCCCG
TCCAAGGAAGTCAAGCAGGAGCAGATCCTCAGCCTGTTTGAGGACACGTTTGTCCCTGAGATCAGCGTGACCACC
CCCTCCCAGCCAGCAGAGGCCTCGGAGGTGGCGGGTGGGACCCAACCTGCGGCTGGAGCCAGGAGCCAGGGGAG
ACGGCGGCAAGTGAAGCAGCCTCCAGCTCTCTTCTGCTGTGCTGGTGGAGACCTTCCAGCAACTGTGAATGGC
ACCGTGGAGGGCGGCAGTGGGGCCGGGCGCTTGACCTGCCCCAGGTTTCATGTTCAAGGTACAGGCCAGCAC
GACTACACGGCCACTGACACAGACGAGCTGCAGCTCAAGGCTGGTGTGTTGGTGTGTTGATCCCTTCCAGAAC
CCTGAAGAGCAGGATGAAGGCTGGCTCATGGGCGTGAAGGAGAGCGACTGGAACCAGCACAAAGGAGCTGGAGAAG
TGCCGTGGCGTCTTCCCCGAGAACTTCACTGAGAGGGTCCCATGACGGCGGGGCCAGGCAGCCTCCGGGCGTGT
GAAGAACACCTCCTCCCCGAAAAATGTGTGGTTCTTTTTTTTGTGTTTTCGTTTTTTCATCTTTTGAAGAGCAA
AGGGAAATCAAGAGGAGACCCCGAGCAGAGGGGCGTTCTCCCAAAGATTAGGTCGTTTTTCAAAGAGCCGCGTC
CCGGCAAGTCCGGCGGAATCACCAGTGTTCTGAAGCTGCTGTGCTCCTTAGTTGAGTTTCTGGCGCCCCTGCC
TGTGCCCCGATGTGTGCTGGCCGACGGGCGGGGCTGGGGGCTGCCGAGCCACCATGCTTGCCTGAAGCTTCGGC
CGCGCCACCCGGGCAAGGGTCTCTTTTCTGGCAGCTGCTGTGGGTGGGGCCCAGACACCAGCCTAGCCTGGCT
CTGCCCCGACAGCGGTCTGTGTGCTGTTTGAAAATAAATCTTAGTGTTCAAAACAAAATGAAACAAAAAAAAT
GATAAAACTTTTCAG

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FIGURE 916

MAEMGSKGVTAGKIASNVQKKLTRAQEKVLQKLGADETKDEQFEQCVQNFNKQLTEGTRLQKDLRITYLASVKAM
HEASKKLNELQEVYEPDWPGRDEANKIAENNDLLWMDYHQKLVDQALLTMDTYLGQFPDIKSRIAKRGRKLVDY
DSARHHYESLQTAKKKDEAKIAKAEELIKAQKVFEEMNVDLQEELPSLWNSRVGFYVNTFQSIAGLEENFHKEM
SKLNQNLNDVLVGLEKQHGSNTFTVKAQPSDNAPAKGNKSPSPPDGSPAATPEIRVNHEPEPAGGATPGATLPKS
PSQLRKGPFPVPPPKHTPSKEVKQEILSLFEDTFVPEISVTTPSQPAEASEVAGGTQPAAGAQEPGETAASEAA
SSSLPAVVVETFPATVNGTVEGGSGAGRLDLPFGFMFKVQAQHDYTATDTDELQKAGDVVLVIPFQNPÉEQDEG
WLMGVKESDWNQHKELEKCRGVFPENF TERVP

FIGURE 917

AAAGCAGAATTGAGAGTTTGTCTTACACACAAGTTTAAATGCCACCTTCCTCTGTCTGCCATGGACCAACAAGCA
ATATATGCTGAGTTAAACTTACCCACAGACTCAGGCCAGAAAGTTCTTCACCTTCATCTCTTCCTCGGGATGTC
TGTCAGGGTTCACCTTGGCATCAATTTGCCCTGAAACTTAGCTGTGCTGGGATTATTCTCCTTGTCTTGTTGTT
ACTGGGTTGAGTGTTTCAGTGACATCCTTAATACAGAAATCATCAATAGAAAAATGCAGTGTGGACATTCAACAG
AGCAGGAATAAAACAACAGAGAGACCGGGTCTCTTAAACTGCCCAATATATTGGCAGCAACTCCGAGAGAAATGC
TTGTTATTTTCTCACACTGTCAACCCTTGGGAATAACAGTCTAGCTGATTGTTCCACCAAAGAATCCAGCCTGCTG
CTTATTCGAGATAAGGATGAATTGATACACACAGAACCTGATACGTGACAAAGCAATTCTGTTTTGGATTGGA
TTAAATTTTTCATTATCAGAAAAGAACTGGAAGTGGATAAACGGCTCTTTTTTAAATTCTAATGACTTAGAAATT
AGAGGTGATGCTAAAGAAAACAGCTGTATTTCCATCTCACAGACATCTGTGTATTCTGAGTACTGTAGTACAGAA
ATCAGATGGATCTGCCAAAAAGAACTAACACCTGTGAGAAATAAAGTGTATCCTGACTCTTGA

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FIGURE 918

MDQQAIYAELNLPTDSGPESSSPSSLPRDVCQGSPWHQFALKLSCAGIILLVLVVTGLSVSVTSLIQSSIEKCS
VDIQQSRNKTTTERPGLNCPIYWQQLREKCLLFSTVNPWNNSLADCSTKESLLLIRDKDELIHTQNLIRDKAI
LFWIGLNFSLSEKNWKWINGSFLNSNDLEIRGDAKENSISISQTSVYSEYCSSTEIRWICQKELTPVRNKVYPDS

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FIGURE 919

ATGACCATGGAACAGTTGAATCCCAGCATGATGGAAGTATAACAGCTTCTTTGACAGAGAGCAAGTCTGCTCAT
GTGCAGACTCAGACTGGGCAAATTTCAATCCCTGCTTTAGCTCAGTGCAGTGAGCTGAGATCAGGCACCAGAAGA
GGCTCCCCAGCTGTAACCTAGTGCAGTTACCTTCGGGCCAACTATACATGTCCAGGGAGTAATTCAGACACCA
CAGCCATGGGTTATTAGTCATCAGAAATACACACCGTTCAGGTAGCAGCAATTGCAGAGACAGATGAATCTGCA
GAATCAGAAGGTGTAATTGATTCTCATAAACGTAGAGAAATCCTTTCACGAAGACCCTCTTATAGGAAAATACTG
AATGAACTGTCCTCTGATGTGCCTGGTGTTCCTCAAGATTGAAGAAGAGAGATCAGAGGAAGAAGGAACACCACCT
AGTATTGCTACCATGGCAGTACCAACTAGCATATATCAGACTAGCACGGGGCAATACATTGCTATAGCCCAAGGT
GGAACAATCCAGATTTCTAACCCAGGATCTGATGGTGTTCAGGGACTGCAGGCATTAACAATGACAAATTCAGGA
GCTCCTCCACCAGGTGCTACAATTGTACAGTACGCAGCACAAATCAGCTGATGGCACACAGCAGTTCTTTGTCCCA
GGCAGCCAGGTTGTTGTTCAAGCTGCCACTGGTGACATGCCAACTTACCAGATCCGAGCTCCTACTGCTGCTTTG
CCACAGGGAGTGGTGATGGCTGCATCGCCCGGAAGTTTGCACAGTCCCCAGCAGCTGGCAGAAGAAGCAACACGC
AAACGAGAGCTGAGGCTAATGAAAAACAGAGAAGCTGCCCGGGAGTGTCGCAGGAAGAAGAAAGAATATGTCAAA
TGTCTTGAAAATCGTGIGGCTGTGCTTGAAAACCAAAACAAGACTCTCATTGAGGAACTCAAGGCCCTCAAAGAT
CTTTATTGCCATAAAGTAGAGTAACTGTCTTTGACTTGGACCTTGTTTACTCTAATCAAGGCAGGAGATGCAGCA
GTCCTACTTATTGCCATGTGGACTTGTGGGAAGGACACGTGTGACCCTTAAGAATCCAGTTTGGATTAGTGTGTTG
AAATTGAATTGGGAATGTTGTTCCAGGATGTGGAATGCAGCGTGATCACACTTACCGAGCTTACTTTGATCTGTT
TGTC AATAGCATGCAAAAAATGCTTTGTTTGCCCTTTGCTTCTGCTTTTTTTTCAGGGAAGCTGCCAAAGAATGTC
GACGTCGAAAGAAAGAATATGTAAAATGCCTGGAGAGCCGAGTTGCAGTGCTGGAAGTCCAGAACAAGAAGCTTA
TAGAGGAACTTGAAACCTTGAAAGACATTTGTTCTCCCAAACTGATTACTAGAAATATTTAACTATGAACTGAT
TACAGA

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FIGURE 920

MAVTGDETDEETDLAPSHMAAATGDMPTYQIRAPTTALPQGVVMAASPGSLHSPQQLAEEATRKRELRLMKNREA
AKECRRRKKEYVKCLESRVAVLEVQNKKLIEELETLDICSPKTD

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FIGURE 921

ATGGACTTCTCATCCTGGCCCTCCTTGGCATCTGCTCTCTCACTGCATACATTGTGGAAGGTGTAGGGAGTGAA
GTCTCACATAGGAGGACCTGTGTGAGCCTCACTACCCAGCGACTGCCAGTTAGCAGAATCAAGACCTACACCATC
ACGGAAGGCTCCTTGAGAGCAGTAATTTTTATTACCAAACGTGGCCTAAAAGTCTGTGCTGATCCACAAGCCACG
TGGGTGAGAGACGTGGTCAGGAGCATGGACAGGAAATCCAACACCAGAAATAACATGATCCAGACCAAGCCAACA
GGAACCCAGCAATCGACCAATACAGCTGTGACCCTGACTGGCTAG

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FIGURE 922

MRLILALLGICSLTAYIVEGVGSEVSHRRTCVSLTTQRLPVSRIKTYTITEGSLRAVIFITKRGLKVCADPQAT
WVRDVVRSMRKSNTNRNMIQTKPTGTQQSTNTAVTLTG

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FIGURE 923

CACGTGGCTGCAGCGGGGCCAGAGCAGCAATGGCGGCGGGCGGCGGCGGTAGCTGCGACCCCCTGGCCCCCTGCTG
GGGTCCCTTGCCTTCTCCCCGCACAGCCAGGCCTACTTCGCTTTGGCCTCTACCGACGGTCACCTACGAGTAT
GGGAGACGGCCAACAACCGGCTGCACCAGGAGTACGTGCCTTCCGCGCACCTCAGTGGTACCTGCACCTGTCTGG
CCTGGGCGCCAGCGCGGCTGCAGGCCAAGGAAAGTCCCCAGAGGAAAAAAGGAAATCAGAAGCTGTAGGAATGA
GTAACCAGACTGACTTATTGGCTCTTGGCACAGCAGTTGGTAGCATTTTATTATACAGCACAGTAAAAGGAGAGT
TACACAGTAAATTAATAAGTGGTGGACATGACAACAGAGTCAACTGCATACAGTGGCATCAAGACAGTGGCTGTT
TATATAGTTGTTTCAGATGATAAACATATTGTGGAATGGAACGTACAGACATGCAAAGTAAAGTGCAAATGGAAAG
GGGACAATAGCAGTGTCAAGTTCCTATGTATCAGCCCAGATGGAAAGATGTTGCTTTTCAGCTGGTTCGAACAATCA
AACTATGGGTTTTTGGAGACCAAAGAAGTCTACAGGCATTTTCACAGGACATGCAACGCCAGTTTCGTCACTGATGT
TCACTACCATCAGACCTCCTAATGAGAGCCAGCCCTTTGATGGAATTACAGGTCTTTATTTCTTATCTGGAGCAG
TACATGACCGGTTACTTAATGTCTGGCAGGTCCGATCAGAAAACAAAGAAAAGAGTGCAGTGTATGTCATTTACAG
TTACCGATGAACCTGTCTATATTGACTTAACTTTGTTCAGAAAACAAAGAAAGAGCCTGTCAAGTTGGCTGTTGTTT
GCAGAGATGGTCAAGTCCATCTTTTTGAACACATATTAAATGGGTACTGCAAAAAGCCTTTGACTTCAAACCTGCA
CAATTCAGATAGCAACACCTGGGAAAGGCAAGAAGTCAACACCAAAACCCATCCCTATTCTAGCTGCTGGTTTTT
GCTCAGACAAAATGTCATTGTTGCTTGTATATGGCAGTTGGTTTCAGCCTACTATTGAGCGAGTGGCTTTAAACT
CCAGAGAACCTCATATGTGTTTAGTAAGAGATATTTCAAACCTGCTGGGCCCCCAAAGTAGAAACAGCTATAACAA
AGGTGAGGACACCAGTGTGAATTCTGAAGCAAAAGTTCTGGTGCCTGGGATTCCTGGTCATCATGCAGCTATCA
AGCCCGCTCCTCCACAAACCGAGCAAGTAGAGAGCAAGAGGAAGTCAGGGGGAATGAGGTTAGCATTGAAGAAC
GTCTGGGAGCAATGGATATAGACACACAAAAAGGAAAGGAAGACCTCCAGACGAATAGCTTTCCAGTTCTTC
TTACCCAGGGCTTAGAAAGTAACGATTTTGAATGCTAAATAAAGTACTTCAAACCTAGGAATGTAAACCTTATAA
AGAAGACTGTATTAAGGATGCCCTGCATACTATTATTCCGTTGTTACAAGAGCTTACAAGAGGTTACAAGGAC
ATCCTAATAGTGCTGTGCTAATGGTTTCAGTGGCTAAAATGTGTGTTAACAGTTCATGCATCATACCTGTCCACGT
TGCTGACCTGGTACCCAGCTGGGGACACTCTACCAGTTAATGGAAAGCAGAGTCAAACTTTTCAGAACTTT
CACACCTTCATGGAAGCTTATTCTTCTAATTACACAAGTAACAGCATCAGAGAAGACAAAGGGAGCAACTTCCC
CTGGACAGAAGGCAAAGTTGGTGTATGAAGAAGAGTCTTCTGAAGAGGAGTCTGATGATGAAATAGCAGATAAGG
ATTCTGAAGATAATTGGGATGAAGATGAGGAGGAGAGTGAAAGTGAAAAAGATGAGGACGTTGAAGAGGAAGATG
AGGATGCCGAAGGAAAAGATGAAGAAAATGGCGAGGACAGAGATACAGCAAGTGAAAAAGAATTAAATGGAGATT
CTGACTTAGATCCTGAAATGAAAGTGAAGAAGAAATGAAGACAGCAAAAGCAAGCCGCTCAAACCTATATAAACTCT
GGCTCACCTTGCCAGTGGTGAGGGCTGCCTCTGTGCCAGGATGCCAAGGACCGCTGCACATTTCCAAATTCACA
GCAGTGGATCCCATGCCACTTTGCTGTCTGAGCACCCAGACTTGACTGTGTAAATAAGAGTGTTCATTCAA
TGTTAATAAACTTTACACAGTATATAGACACATTTTCTGCAATGTACTGACATCAGTGTCCAATATATGGTATAT
TTTTATAATATAATATCCTAGTATGATTGGTTATATCAAGAATTGACAAGTGCAGATAAAGACCTTTCCCATAGG
AGTTCAAGAACTGGACTGTTGTGAAGAAGTCAGCTCTTATCTCAGGTTGGTATCTTTTCATCAAATCCAGATGCAA
AGCAGCACTAGTGAAAATTTTTTAAATTTAGTACATTTAATTTGGTACATTTTCATAAAATATGAAGGGATAACT
ACAACTGGAGTAAAAATGATGGTAATTAATAAAAAATCCTCAGTATCCCTAGCTTGCTCTATTAAGTGTGATAATC
TGACTTGAGTCAGATTGAATATTTGGAGTGCTTCCCCAGAATAACCACTTATTTTGAAGCTATCATGTGAAGTA
TTTTTTTAAAAACAAAACAAAATATGGTCATTAAAAAACTAGAGAATTAGCCATATTAAGGATTTTCTTGACT
GCAAATTACTTCTAAAGAATCATCAGTGTATAGATTAGAAGTGCTCATTACCTGCACTTTTAAAAAAATTCAG
TTATAGCTGCTTTTGAAGAGGTTTCCATTTTTATTTAAATTACTAATGGATCAAAGAACAATTGTTTATTTTTTC
TCTTTGGTTTTTAGATATTAATGATAACCTTGTTGGAATTTTTTTTCCAAAGAAAATATTTTTATAATTAATAAT
TAAATGTTTTTCTTCTTTTTCATTACCTACTCTTGGCAGTGTTAGGGTATCTGTTTACCTTTAAATGATAAGTC
TCACTCAAGATTTTTTATCTATGTATAAATATTTTGGTGTGCTACAAAAGCCTTTACAAATTATCAGTAGTAGTT
TTTTTTTTTTTTTTTTTTTTTTTTTAAAGAATGAGCCGATATTGGCTTAGTGCTCACTAGGGGACATGCACATGGAAGC
TCACCTCTAAGAAAGGGCTGGGCAGATGGATTTATTTTTTCCCACCTGTGAATATGTAAACAAAACCATTTATCT
TTGAGGGAGTTTTTAATACCAATGACAGAACAGAGATTTGTGTGCTCATCTTAAGAGCCAGAGCCATATAAGCAT
CTTGGGAAAGCAAGTTTGAACCAGCTGCTGGTGTAAATGTACAGTTATATTTGTCTATAAATGGAGCTGTTTATGG
CAATTTAATACCATTCTCTTTGTAAAGTGAATAAATATTCATCTTTTCCC

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FIGURE 924

RGCSGARAAMAAGGGGSCDPLAPAGVPCAFSPHSQAYFALASTDGHLRVWETANNRLHQEYVPSAHLSGTCTCLA
WAPARLQAKESPQRKKRKSEAVGMSNQTDLLALGTAVGSILLYSTVKGELHSLISGGHDNRVNCIQWHQDSGCL
YSCSDDKHIVEWNVQTCKVKCKWKGDNSSVSSLCISPDGKMLLSAGRTIKLWVLETKEVYRHFTGHATPVSSLMF
TTIRPPNESQPFDGITGLYFLSGAVHDRLLNVWQVRSENKEKSAVMSFTVTDEFVYIDLTLSENKEEPVKLAVVC
RDGQVHLFEHILNGYCKKPLTSNCTIQIATPGKGKKSTPKPIPIAAGFCSDKMSLLLVYGSWFQPTIERVALNS
REPHMCLVRDISNCWAPKVETAITKV RTPVMNSEAKVLVPGIPGHAAIKPAPPQTEQVESKRKSGGNEVSIER
LGAMDIDTHKKGKEDLQNSFPVLLTQGLSNDFEMLNKVLQTRNVNLIKKTVLRMPLHTIIPLLQELTKRLQGH
PNSAVLMVQWLKCVLTVHASYLSTLPDLVPQLGTLYQLMESRVKTFQKLSHLHGKLILLITQVTASEKTKGATSP
GQKAKLVYEEESSEESDDEIADKDSEDNWEDEEESESEKDEDVEEEDEDAEGKDEENGEDRDTASEKELNGDS
DLDPENESEEE

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FIGURE 925

GCCACTTGCAGTGATGTTTTGTTCTTCCCTAGCTCCTGCAGATACCTAAAGATAGTCCATAATCTTTTTGGGTCT
CACTTCTGCAAATTGGAGTTCATACTTGCCTATCTTTTGTGGAAGAACCCTCAAGATAGTTGCAAAAAGTATTT
TGAAAAGTATAAAGTGATGGGTTTAATGTAAATGTTTTATTCAATACTACTATCCTCTAGACTAATTTGGTTGTA
GTTACATTACAGTAGCTGCTTCGTAAGTGATTTTTG

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FIGURE 926

ATCSDVLFFPSSCRYLKIVHNLFQSHFCKLEFILALSFVEEPSR

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FIGURE 927

GAATCTCTTTCTCTCCCTTCAGAATCTTATCTTGGCTTTGGATCTTAGAAGAGAATCACTAACCAGAGACGAGAC
TCAGTGAGTGAGCAGGTGTTTTGGACAATGGACTGGTTGAGCCCATCCCTATTATAAAAATGTCTCAGAGCAACC
GGGAGCTGGTGGTTGACTTTCTCTCCTACAAGCTTTCCCAGAAAGGATACAGCTGGAGTCAGTTTAGTGATGTGG
AAGAGAACAGGACTGAGGCCCCAGAAGGGACTGAATCGGAGATGGAGACCCCCAGTGCCATCAATGGCAACCCAT
CCTGGCACCTGGCAGACAGCCCCGCGGTGAATGGAGCCACTGCGCACAGCAGCAGTTTGGATGCCCCGGGAGGTGA
TCCCCATGGCAGCAGTAAAGCAAGCGCTGAGGGAGGCAGGCGACGAGTTTGAAGTGCAGGTACCGGCGGGCATTCA
GTGACCTGACATCCCAGCTCCACATCAGGACAGCATATCAGAGCTTTGAACAGGTAGTGAATGAAGTCT
TCCGGGATGGGGTAAACTGGGGTCGCATTGTGGCCTTTTTCTCCTTCGGCGGGGCACTGTGCGTGGAAGCGTAG
ACAAGGAGATGCAGGTATTGGTGAGTCGGATCGCAGCTTGATGGCCACTTACCTGAATGACCACCTAGAGCCTT
GGATCCAGGAGAACGGCGGCTGGGATACTTTGTGGAACTCTATGGGAACAATGCAGCAGCCGAGAGCCGAAAGG
GCCAGGAACGCTTCAACCGCTGGTTCTGACGGGCATGACTGTGGCCGGCGTGGTTCTGCTGGGCTCACTCTTCA
GTCGGAATGACCAGACACTGACCATCCACTCTACCCCTCCACCCCTTCTCTGCTCCACCACATCCTCCGTCCA
GCCGCCATTGCCACCAGGAGAACCCG

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FIGURE 928

MSQSNRELVVDFLSYKLSQKGYSWSQFSDVEENRTEAPEGTESEMETPSAINGNPSWHLADSPAVNGATAHSSSL
DAREVIPMAAVKQALREAGDEFELRYRRAFSDLTSQLHITPGTAYQSFEQVVNELFRDGVNWGRIVAFFSFGGAL
CVESVDKEMQVLVSRIAAMATYLNHLEPWIQENGGWDTFVELYGNNAAAESRKGQERFNRWFLTGMTVAGVVL
LGSLSRK

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FIGURE 929

CGCCTCTTCACGGCACTGGGATCCGCATCTGCCTGGGATCATCAAGCCCTAGAAGCTGGGTTTCTTTAAATTAGG
GCTGCCGTTTTCTGTTTTCTCCCTGGGCTGCGGAAAGCCAGAAGATTTTATCTAGCTTATACAAGGCTGCTGGTGT
TCCCTCTTTTTTCCACGAGGGTGTTTTTGGCTGCAATTGCATGAAATCCCAATGGTGTAGACCAGTGGCGATGG
ATCTAGGAGTTTACCAACTGAGACATTTTTCAATTTCTTTCTTGTTCATCCTTGCTGGGGACTGAAAACGCTTCTG
TGAGACTTGATAATAGCTCCTCTGGTGCAAGTGTGGTAGCTATTGACAACAAAATCGAGCAAGCTATGGATCTAG
TGAAAAGCCATTTGATGTATGCGGTGAGAGAAGAAGTGGAGGTCCTCAAAGAGCAAATCAAAGAATAATAGAGA
AAAATTCCCAGCTGGAGCAGGAGAACAATCTGCTGAAGACACTGGCCAGTCCTGAGCAGCTTGCCCAGTTTCAGG
CCCAGCTGCAGACTGGCTCCCCCCTGCCACCACCCAGCCACAGGGCACCACACAGCCCCCGCCCAGCCAGCAT
CGCAGGGGCTCAGGACCAACCGCATAGCTGCCTATGCCCCCGAGAAGTGGCTGCTGCGTGTGAACTGAACAGACG
GAGAAGATGTGCTAGGGAGAATCTGCCTCCACAGTCACCCATTTTCATTGCTCGCTGCGAAAGAGACGTGAGACTG
ACATATGCCATTATCTCTTTTCCAGTATTAAACACTCATATGCTTATGGCTTGGAGAAATTTCTTAGTTGGGTGA
ATTAAAGTTAATCCGAGAATTAGCATGGATATACCGGGACCTCATGCAGCTTGGCAGATATCTGAGAAATGGTT
TAATTCATGCTCAGGAGCTGTGTGCCTTTCCATCCCTTCCGGCTCCCTACCCCTCACTTCCAAGGGTTCTCTCTC
CTGCTTGCCTTAGTGTCTACATGGGGTTGTGAAGCGATGGAGCTCCTCACTGGACTCGCCTCTCTCCTCTCCT
CCCCCAGGAGGAAC TTGAAAGGAGGGTAAAAAGACTAAATGAGGGGGAACAGAGTTCACTGTACAAATTTGAC
AACTGTCACCAAAATTCATAAAAAACAATAGTACTGTGCCTCTTTCTTCTCAAACAATGGATGACACAAAACAT
GAGAGTGACAAATGGTGACAGGTAGCTGGGACCTAGGCTATCTTACCATGAAGGTTGTTTTGCTTATTGTATAT
TTGTGTATGTAGTGTAACTATTTGTACAATAGAGGACTGTAATACTATTTAGGTTGTACAGATTGAAATTTAG
TTGTTTCATTGGCTGTCTGAGGAGGTGTGGACTTTTATATATAGATCTACATAAAAAC TGCTACATGACAAAAAC
CACACCTAAACCCCTTTTAAGAATTTGGCACAGTTACTCACTTTGTGTAATCTGAAATCTAGCTGCTGAATACGC
TGAAGTAAATCCTTGTTCACTGAAGTCTTTCAATTGAGCTGGTTGAATACTTTGAAAAATGCTCAGTTCTAACTA
ATGAAATGGATTTCCAGTAGGGGTTTCTGCATATCACCTGTATAGTAGTTATATGCATATGTTTCTGTGCATGT
TCTCTACACAATTGTAAGGTGTCACTGTATTTAACTGTTGCACTTGTCAACTTTCAATAAAGCATATAAATGTTG

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FIGURE 930

MKSQWCRPVAMDLGVYQLRHFSISFLSSLLGTENASVRLDNSSSGASVVAIDNKIEQAMD LVKSHLMYAVREEVE
VLKEQIKELIEKNSQLEQENLLKTLASPEQLAQFQAQLQTGSPPTTQPQGTTPPAQPASQSGPTA

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FIGURE 931

CAGAGGCAGGGAAAACACGCAGAAGCAGGAGCTGAAGACCTCAGACCGGCACCAGGACAGCTTAATGAAGACAA
ACTGAAGGGGAAACTGAGATCCTTAGAAAACAGCTATACACCTGTACCCAGAAATACTCCCCTTGGGGAATGAA
AAAAGTACTACTGGAGATGGAAGACCAGAAAAACAGCTATGAGCAGAAGGCCAAGGAGTCACTGCAGAAAGTGCT
GGAGGAGAAAAATGAATGCAGAGCAGCAACTACAGAGCACACAGGTATGGGGATGCCACATAGACATGGGGCTGGG
GACTCCAGGCAGCTTGGGGAACAAGGGGAGCCAGCTGCACAACCTCCCTGGAGCCCTCTCCTCTCTTGATCTCCCTC
AGCGATCCCTTGGCCCTGGCAGAGCAGAAGTGTGAAGAGTGGAGGAGCCAGTATGAGGCTCTGAAGGAGGACTGGA
GGACCTTGGGACCCAGCACAGGGAGCTGGAGAGCCAACTCCACGTGCTTCAGTCCAACTGCAGGTACCAGGCA
CTGGGGGTGGGGAGGGAAGACAGGGTATGGGGAGGAGGGATGGTGATGAAAGAAGCTGTTCTGGATTAGGGACTC
CAAAGGCAGCTGACAGCATCTGGCTTTTCAGTTCTCAGTCAACCACTACTTTGTACCAAATTCAGTGTCTTGGCTC
TGAAATCTAATTTTGAGTTTAGCAAGGATGTCTGCATTGCTCATGCAAACTGAAGTAAAGCGTTCATTGGAATGACA
CCATCACCACCCAAATGAAAAGAACTGGCTGGAATATTATCATCAGCCTACTAATGTCTATCTCCCAACCCACTCTCC
AAACTCCATCCCAAAAAGCATCCAGTTTCAAGATTGCCCCACTGTTGGCAAAGAAAGAATGTCTACTAATTTATTTA
CAGGTGAGTATTAACACTTTCTGCCAATGTGTATTTTAAGCAATTACATTTAGCAATTACAATTAGATTCTTGGC
ATCCTCAAGGGTTCATCATCTTCAATCTGTCTTAAGCCTCAGTTTCCCCATCTCTAGAATGAGGATAATAGTA
CCTACATCATAAGGTGGCTCTGAGTATTAAGTAAGATGATCCATGTCAAGCACTTAGCACAAATGCCTGGCACACA
AAAACACTCAGTAAATATTAGCTATTATTTTGCATAGATTTATTTACCTGGTTTGGAATTTTGAGGATCCACCTC
AAAAGCTGATCTTTGTAATTTTCTGAAGCAGGGCTCAGAACAGCCACTTGATAAGAGACAGAGTATGTGAGTC
TTATCAAAGGAGTGAACCCAGCTGGTCACTCTGCGTGGTATCCACAGCTCAACCTTTGTTGTTTTCTTCTTCCCCA
TCACCTATAAGGCAACTCCTATGAAGATTTTGTGAGGGGTTTTTAACTTTAAATCTTTGTGGAAAAAAAAGA
CCCTAACCAAAAAAAACTGATACTGCCAGAAGTAGAAAAAAGAGAAAATGAAAACATCCAGAAAATAATGACT
TTGTATTCTTAATTTGGTGATTTACCAAAGTGTCAAGACATGACTCCACACCAATGACAACCACTTACATTTT
CCCTAGAAATGGCAGATTTTTTAACGTACTGGGTTTCTTAAAGCAATTTCTTATTTTATATATTCTAATTTATGTAC
ATGAATGTGTCACTTAGACCTGTCACTAGGGATGGTTTAGAAAATAAACTTACACTGCACATGCCTCAGTCCACT
TCAAACTNN
NN
NNNNNNNNNNNNNNNNNNNNNAGACGCGAGTTTCTTGTGAATATCAAAGTCTAATCTGCTGTTATAAATATGAGGA
ACAAAGCAAAGGGAAGAAATAGGAAAAAAGAAAGACTTCTCTATTTTCTCATCTCCCTAACATTCCTTCTATCTC
TAAAATTCCAGACTTTTCTACATTTTCTCTTCCATGGTACCCGCCCCCAACCTCCACCCCAACACTGACCATC
CTTCTATATTGGCCCTCCTCCTCCTTACAGGGAGCAGATAGCAGGGACTTACAGATGAACCAGGCCCTGCGATT
TTTGGAATATGAGCACCAGGAAGTGCAGGCCAAGATTGAATGCCTGCAAGGGGACAGAGACCTGTGCAGCTTGGA
TACCCAGGACCTACAAGGTACTCTTCTCCTTGGAGGCCCTTGAGTGCATGGCAGCCATGGCCAAGTGAGCTAAGAA
AAAAGAACTGAATTAAGAGAAAGGCTTACGCTTTTATTTGTTTGCTTGATTGGTTGATTGGCTTTATAATCTC
ATTTTACCTTGAGGGAGAGGCAGGACTGTTTTAATCATCCAAAATTGAAAATTAATTTCACTGTAGTAGATAGAG
TATCTTGTGTCTGAGCTCTCTTTTTTAGCCCATCCCTCTGGGCCAGATCACAGCTGCTCCACATCAGTCACAT
ATGTCAAGGCCACAGTCTTAATTTGAAAGGGAAAGGTCAAGTTGAAACACAAGGCATAGAGAAAGTCTCTCAGTCA
CATCTCTGTGTCCGCTGATAGAGAGGACTAGATAGTGTGTAAACACAAGCCTCAATGCAACCAACATTGTTGA
TGCACAAAAACCTGAGGTACTTGGCTTCTGGTTTACCTCTTCAGAACTGGGACACGAAGATAGAGCAACTTCCAA
TAGACACACGTTAAAGACCATGACAAGACAGCATCTATTACTAATTTCCATCCTAAGTACTGAGTTTATTAAAGTC
TTGGGTTCTTTATTTTGGCTTGCAATTATTGCATTTTCAGATCAACTAAAAGGTGAGAGGCAGAGAACTCACC
CTGGTGACCAGAGTACAGCAGTTGCAGGGTTTGCTTCAAAATCAATCCTTACAGCTTCAAGAACAGGAGAACTC
TTAACAAAGAAAGGTGAGCAATTTATTACCACAAATTTCTAAGATATTGCTCTTCTCTTACCTGCCTAGAGGCAG
CGGGATGGACTACATGACCTCCTGGAGTCCCAGCCAGTTCTGGGAGTCTGTTAAGTCCGGGATGTGTGGGAGCTT
TTTAAGGACTGATCATTGGCTCTGAGGACACTTCAACTAGTTAGCCTTCTATCTTGAGGTATATAAACTGTGAAA
AGGGTTCTATTCTCTCTGAAAGCACATGTCT

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FIGURE 932

RGRENHAEAGAEDLRPAPGQLNEDKLKGKLRSLNQLYTCTQKYS
PWGMKKVLLEMEDQKNSYEQKAKESLQKVL
EEKMNAEQQLQSTQVWGCHIDMGLGTPGSLGNKGSQ
LHNSLEPSPL

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FIGURE 933

GTTGAAATAACTATAACTTAAAGCAAATCTAACCCAGTAAGCTATCAAAAAGAAAAATTATATAATTACCAAGT
 AGAGTTAATTTACCTGAGTTCTATGAACATATTCATTATTAAAGGAAACCTCAAATTATTGTCCCATTGGAAGC
 AAAATATACATTTATAAATAGCCATTTCTCGTTTTAAAAAACTAATAACATTGAAATAAACAGAACTTAAGCTC
 TTCTAGTTTGCCAAAAACCAGAAAGCAAACATCATATACTAAATGATGAAATGCCAAAGCCATTTCCATTATATC
 AGAAACGAGACTAATACTTCCTGTCATCATTTACATGATTGTCACTATTATTAAGCATTGTTTTGGTAGTTCTAG
 CCATTGCAGTAAGACAGTAGACAGAAAGTCAAATAATTGGCATAAATATTGGAAACAAAAAATTATTTCTACTTT
 GAAATGATACAATAGAAATAGCTGGAAAGCCCAGGGGGACTCTAGTAGAAAACAGCAATGAGGATTAAATGTAAGA
 CACTTTGGAAAGCTGATGTGTGAGAAATGTACACAACTAATAGCTTTCTCTTTATTAGTAGTCATCAGTTGAAA
 ATGGAAATGACCAAGCAAAAATATTCAACAGAATGACAAACTATTGGTTACACCTAGGAATAAATGTGTTAAAG
 AAAGGTACAGAGTGAAGGTAATGACCCTTATGAAGAAAACCTTGATATTATAAAAAAGTAGTCCTTTTCTCCCTCAG
 TTTTTGTCTTCAAAATGTTTACTTGGGACAGATCGTGGTTTACATGATGGTCCTCAAACATATTGTGAACAACAT
 TAAAAAAGACACATTTTACTCAATAAGTAACATTTTTTGGAGAAGCTACTATGTGCTAGGGACCTAGTTTTT
 AGTGCAGTGGTCTCCAAAATAATGTACTGGCAGTATGGGAAGAGCGTTTAGAACACTGTACCTTTTTATTGGGA
 GGAGAAAAGAAACCTTTGTCAAATATTTAACACCTGCTGCCAGAGGTCTGTAGATTTGATGATTGTGTGCCATGA
 GTTACACACAGACTCCTAAATCAGTTTCACCTGTGGTGTCTCATTCTGTTTACTTTGAGCATTTTGCATTCTAT
 ATCTGCTTAGTTATATGGATTTATTCGTCCCATAATATGTGTAGCCACATGGACACATGTTTTAAAGGTTTT
 AAATTCTGCAAGATAGTGACGATGATGTAAACACAAGAAAAGGGCAAATGGATACATTTTCTACTCTGTGCTCA
 TCAAACATATTACAGGATAAAATTATTGGCTATCTAATAAAAACACAGACTAATAAGACCTGATAAGTTGGACAA
 AATGTTTTAAATTAACATGAAGATGATAGGAAGTATGAATCTATATTCAGTGTCAATTAATGTCAAACCTTTACC
 TTATGGTATATTGTACTTTGAGAAATTA

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FIGURE 934

MSNLYLMVYCTLRN

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FIGURE 935A

AAAATTGCGTTTGTAGTTTGCCGCGAGCCGGGCCAATCGGTTTTGCCAACGCATGCCACGTGCTGGCGAACAAAT
 GTAAACACGGAGATCGTGTGCCGGGCACCTTGGTTTTCTGTTGGTGGGCAACTGTGCTGCTGTTTTCTTTTGGCCGCGGA
 CAAGGTCGGCAGAGGTGGACCCCTGCTTGGGAGAGCTCTTCTCGCTGTGCTGACACCCGCCCTAACAGTCAACC
 ACCCGGGGAAATAATGGGGCTCGGAGGCCTCCTCCCAGCCAGTGTCCAGCCTAAGCACATCGGCTCCCGCAGTT
 CAGAAAGTCCCGAGGCCCGAGTCACCATTTCCGGCTCAGACCTCGACCCGGAACGTGGCTGCCCCACTGCCACGC
 CCACTACGCCCCAGTGGCTCGCCCCAGGGGACGAGGGGCAAGAAGCGGCCTCCGAGGGCAGCGGCCGAAGGCCAT
 TCGGTCCCTGGCTCTTCCCAGCTCGCAGAGACCCGGAAGCGCTGCCCGGCCGCTGCCCTCTTCAGATCCCCCA
 GCACCGGAGGAGCAGCGAGGGGGCTGCGTCCAGGCCGGCTTTCGGGTTCGGCTTAGGCGAATCCAGCTCTCTTTTG
 CCCCTCCCAGAAGGCCAGCCCCGTCCGGGCGGTGTTCCGGGCGGCGCCGGGCCGGGCCCCCGCCGCCCCAGGCT
 CGCTCATAGGCCCGGAACACCACAGCCCCGCCAGACTTGGCTGGCGCCGAGCCGGGGGTGGAGCCAGCGGGTTCC
 CGCCAAAATCGCGTAGCTGGTCTTCCCCCGGGGCTACGTGCGGCCCTCCTTTTTTTTTTCAAACCCGGAGCTGC
 ACTGGGATTGGTGGACTGGGCACTCACGTGGTTAACGGTTCGCGGGAAGCCGCGGAGCCCGAACCTGAGACTGGAC
 CTGAGGAGACCTCAGCCTCGGTGCTCGGGCCGCCCGCCTCTGCCGGAAGTCCGCGCCGCCGCTGCCGCCACCG
 TCCGCAGCCCGAGCGCCCCGGAGCCGCAGGCCGCCCGCGCAGAGACGCCGCGGCTGCGACTAGGCGCGCCAG
 CCGCACGTGGCGGACCCGCCCGAGGCCCGCAGTGTCTTGACCCCGCAGGCCTCCGCTCTCCTGTCTCGGCCC
 CGTCCCAGGGCCGCGATGAGCTTCTGAGCCGACAGCAGCCGCCGCCACCCGCCGCGCCGGGGCGGCCTGCAC
 CTTGCGGCAGAAGCTGATCTTCTCGCCCTGCAGCGACTGTGAGGAGGAGGAAGAAGAGGAGGAGGAGGAGGGCAG
 CGGCCACAGCACCGGGGAGGACTCGGCCTTTCAAGAGCCCGACTCGCCGCTGCCGCCCGCGCGGAGCCCCACGGA
 GCCCCGGGCCGAGCGCCGCCGCTCGCCCGGGCGGCCCGGGAGCCCCGCGCAGCTGGAGGAGGACCTGTTGCT
 GCCCCGGCGCTGCCCGGGCGCGGACGAGGCGGGCGGTGGGGCGGAGGGCGACTCGTGGGAGGAGGAGGGCTTCGG
 CTCTCGTTCGCCGGTCAAGTCGCCGCGGCCCTACTTCTGGGTAGCTCTTCTCGCCGGTGCCTGCGGCGG
 CCCAGGAGATGCGTCGCCGCGGGGTTGCGGGGCGCGCCGGGCGGGCGAAGGCCGCCGCTCGCCGCGGCCGACCA
 CCCGGGCACCCGCCACACAAGACCTTCCGCAAGCTGCGACTCTTCGACACCCCGCACACGCCCAAGAGTTTGCT
 CTCCAAAGCTCGGGGAATTGATTCCAGCTCTGTTAAACTCCGGGGTAGTTCTCTCTTCATGGATACAGAAAAATC
 AGGAAAAAGGGAATTTGATGTGCGACAGACTCCTCAAGTGAATATTAATCCTTTTACTCCGATTCTTTGTTGCT
 TCATTCTCAGGACAGTGTGCTCGTAGAAAGAGAACGTATTGGAATGATTCTGTGGTGAAGACATGGAAGCCAG
 TGATTATGAGCTTGAAGATGAAACAAGACCTGCTAAGAGAATTACAATTACTGAAAGCAATATGAAGTCCCGGTA
 TACAACAGAATTTTCATGAGCTAGAGAAAATCGGCTCTGGAGAATTTGGTTCTGTATTTAAGTGTGTGAAGAGGCT
 GGATGGATGCATTTATGCCATTAAGCGATCAAAAAAGCCATTGGCGGGCTCTGTTGATGAGCAGAACGCTTTGAG
 AGAAGTATATGCTCATGCACTGCTTGGACAGCATTCTCATGTAGTTCGATATTTCTCTGCGTGGGCGAGAAGATGA
 TCATATGCTTATACAGAATGAATATTGTAATGGTGGAAAGTTAGCTGATGCTATAAGTGAAACTACAGAATCAT
 GAGTTACTTTAAAGAAGCAGAGTTGAAGGATCTCCTTTTGCAAGTTGGCCGAGGCTTGAGGTATATTCATTCAAT
 GTCTTTGGTTCACATGGATATAAAACCTAGTAATATTTTCATATCTCGAACCTCAATCCCAAATGCTGCCTCTGA
 AGAAGGAGACGAAGATGATTGGGCATCCAACAAAGTTATGTTTAAATAGGTGATCTTGGGCATGTAACAAGGAT
 CTCCAGTCCACAAGTTGAAGAGGGCGATAGTCGTTTTCTTGCAATGAAGTTTTACAGGAGAATTATACCCATCT
 ACCAAAAGCAGATATTTTTCGCTTGCCCTCACAGTGGTATGTGCTGCTGGTGTGAACCTCTTCCGAGAAATGG
 AGATCAATGGCATGAAATCAGACAGGGTAGATTACCTCGGATACCACAAGTGCTTTCCCAAGAATTTACAGAGTT
 GCTAAAAGTTATGATTATCCAGATCCAGAGAGAAGACCTTCAGCAATGGCACTGGTAAAGCATTACAGTATTGCT
 GTCCGCTTCTAGAAAGAGTGCAGAACAATTACGAATAGAATTGAATGCCGAAAAGTTCAAAAATTCATTTTACA
 AAAAGAACTCAAGAAAGCACAGATGGCAAAAGCTGCAGCTGAGGAAAAGCACTCTTCACTGACCGGATGGCCAC
 TAGGTCCACCACCCAGAGTAATAGAACATCTCGACTTATTGGAAAAGAAATGAACCGCTCTGTGAGCCTTACTAT
 ATACTGAGCTACTCCTTTCCACCTCCCCCTGAACACTGTGACAAGAGGAAGCTAGGTTGAAATCACTGATAGAA
 TCCAGTTTGCAATTACTTTCTCGATTGGTGTGAGTAGTTTTACTGATTAGGACTTTTATTGTGAATTACAGTTGA
 AAGCTGTATTTTGTATGATTGCTATGTGAGGCTTTTCATCTAATCTTACCAGTCTGTCTTCTGTAGGATGTGTCAC
 GTTGGATGTTACACCAGCCTTTCCAGGGTTAACCCTGTGGTGGTGTGCTGCTTATAGTTTGTGTTGATTGTA
 ATAAAAGGTGTCTTTCCCTGTAGTGACCTGTAAAAGTACTCAAGGGCTTTATTACAGACATACCCTCCCTTTGA
 AAAGGGACATGCTAAAAGACTCATTACTACTCAGCCTTCAATGTACCTGTGTGCCATCTTATATTTCTTTTTTT
 TTTTAAATTGTGAATTAGACTTGTATATCCCACTGGGAGCACTTGTAGGCATTGCATGAACCATGGGATGATGA

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FIGURE 935B

TTCTGTGGAGGTATTGCCTTGTGAATTTGCTGCTATTTTAGTTTTGCTTTGCTGTAACTTGTAGCATTAAACA
ATCATTGTTGTTAATAGGCTTCTTTTTGAAACAATTATGTGAAATGTATAGCTGCTTTTGATGAAAAGCAGCTA
TTTGCCTTTTTTTTTTTTTTCCTTTGAACCTTTGAAGCTAGTGCATTGGAAAAATGCACCCTTTCCTCCTTTGGAAT
GCTGTATTAATGTAGTATAATAATTACTGGTTTTGTAACCTGTTCTGCTAATGTCCTTCCCGGACTCTTTTAAA
TGTCTCCCCCTAAGTTTTATACTTGATTGTATTATTAGTCTGTTTTAAATGTTTTGCCCGGTTTTTCTCTTCAA
TATTTGTGTATATAAACCGATCTTCGTGATACTGTACATAGCTGTTTGAAATGCCAGAATGACTTCTGACATTCC
AAGTTTTTCACAAAATATATTTTATCTGTGATTAGCCATTTGACTAATAATACTGGCTAACAGATGTTGAAAAA
ATTGTCTGTTTGTCTTCATTAATTTGGTCTAAAACATGTTTGCACTTGCTTTGACTTGTGTTTTATTAACA
TTGATTGGCATATTAAAAGTCACTCTGAGCTT

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FIGURE 936

MSFLSRQQPPPPRRAGAACTLRQKLIFSPCSDCEEEEEEEEEEGSGHSTGEDSAFQEPDSPLPPARSPTEPGPER
RRSPGPAPGSPGELEEDLLLPGACPGADEAGGAEGDSWEEEGFGSSSPVKSPAAPYFLGSSFSPVRCGGPGDAS
PRGCGARRAGEGRRSPRPDHPGTPPHKTRFKRLRFDTPHTPKSLLSKARGIDSSSVKLRGSSLFMDTEKSGKREF
DVRQTPQVNINFFTPDSLLHSSGQCRRRKRTYWNDSGEDMEASDYELEDETRPAKRITITESNMKSRYTTEFH
ELEKIGSGEFGSVFKCVKRLDGCYAIKRSKKPLAGSVDEQNALREVIYAHAVLGQHSVVRYSAWAEDDHMLIQ
NEYCNGGSLADAISENYRIMSYFKEAELKDLLLQVGRGLRYIHMSLVHMDIKPSNIFISRTSIPNAASEEGDED
DWSNKMVMFKIGDLGHVTRISSPQVEEGDSRFLANEVLQENYTHLPKADIFALALTVCAAGAEPLPRNGDQWHE
IRQRLPRIPQVLSQEFTELLKVMIHDPERRPSAMALVKHSVLLSASRKSAEQLRIELNAEKFKNSLLQKELKK
AQMAKAAAEERALFTDRMATRSTTQSNRTSRLIGKMNRSVSLTIY

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FIGURE 937A

GAATTCGGCACGAGGTCACCCGGATAGGTAAAGGAAAACATGCCTGCCACACGGAAGCCAATGAGATATGGGCAT
ACAGAGGGACACACGGAGGTCTGTTTTGATGATTCTGGGAGTTTTATTGTGACTTGTGGAAGTGATGGTGATGTG
AGGATTTGGGAAGACTTGGATGATGATGATCCTAAGTTTATTAAATGTTGGAGAAAAGGCATATTCATGTGCTTTG
AAGAGTGGAAAACCTGGTCACTGCAGTTTCTAATAATACTATTCAAGTCCACACATTTCTGAAGGAGTTCCAGAT
GGTATATTGACTCGCTTCACTACAAATGCAAACCATGTGGTCTTTAATGGGGATGGTACTAAAATTGCTGCTGGA
TCTAGTGATTTTCTAGTCAAAATTGTGGATGTGATGGATAGCAGCCAACAGAAAACATTTTCGAGGACATGATGCC
CCTGTTTTAAGTCTTTCCTTTGATCCTAAGGACATCTTTCTGGCATCAGCTAGTTGTGATGGATCTGTCAGAGTG
TGGCAAATTTTCAGATCAGACATGTGCTATTAGTTGGCCACTGCTACAAAAATGCAACGATGTGATAAATGCAAAA
TCAATCTGCAGACTTGCTTGGCAGCCAAAAAGTGGGAAGTTACTGGCAATTCCTGTGGAAAAATCTGTTAAGCTA
TATAGAAGAGAATCTTGGAGTCATCAATTTGATCTTTTCAGATAATTTTCATCTCTCAGACCCCTCAATATAGTAACC
TGGTCTCCCTGTGGGCAATATTTAGCTGCAGGTAGTATTAATGGTCTAATCATAGTTTGGAAATGTGGAAACCAAA
GACTGCATGGAAAGGGTGAAACATGAGAAAGGTTATGCAATTTGTGGTCTGGCATGGCATCCTACTTGTGGTCTGA
ATATCGTATACTGATGCGGAAGGAAATCTAGGGCTTCTAGAGAATGTTTGTGACCCAGTGGAAAGACATCAAGC
AGTAAGGTATCTAGCAGAGTGGAAAAGGATTATAATGATCTTTTTGATGGAGATGATATGAGTAATGCTGGTGAT
TTTCTAAATGACAATGCAGTTGAGATCCCTTCTTTTTTCAAAGGGATTATAAATGATGATGAGGATGATGAAGAC
CTCATGATGGCTTCAGGTCTGCTCTAGACAGCGAAGTCACATCCTAGAAGATGATGAAAACTCAGTTGATATTTCA
ATGCTAAAAACTGGTTCTAGTCTTCTCAAAGAGGAGGAGGAAGATGGTCAAGAAGGCAGCATTACAAATCTACCA
CTTGTAACATCCCAAAGGCCATTTTATGATGGACCCATGCCAACTCCCGGCAAAGCCATTTTCAGTCAGGTTCT
ACACCGTTGCATCTCACTCACAGATTATGGTGTGGAACCTCTATTGGAATTATTCGCTGCTATAATGATGAGCAA
GACAATGCCATAGATGTGGAGTTCCATGATACCTCCATACACCATGCAACACACTTATCAAACACTTTGAATTAT
ACAATAGCAGATCTTTCCACGAAGCTATTTTGTGGCATGTGAAAGCACTGATGAAGTAGCAAGCAAGCTTCAC
TGCTGCACTTTAGTTCTTGGGATTCAAGCAAAGAGTGGATAATAGACTTGCCTCAGAATGAGGATATTGAAGCC
ATATGTCTCGGTCAAGGATGGGCTGCTGCCGCTACTAGTGCCCTGCTTCTCGATTGTTTACTATTGGAGGGGTT
CAAAAAGAGGTATTCAGCCTTGCTGGACCTGTGGTGTCAATGGCAGGACATGGAGAACAGCTTTTCATTGTTTAT
CACAGAGGTACAGGATTTGATGGGGATCAGTGCCTTGGAGTTCAACTGCTAGAGCTGGGGAAAAAGAAAAACAA
ATTTTGCATGGTGACCCTCTTCTCTTACAAGGAAATCCTACCTTGCATGGATTGGGTTTTTCAGCTGAAGGTACC
CCTTGTTACGTGGATTGAGAAGGAATTGTTTGAATGCTTAACAGAGGACTTGGTAATACGTGGACTCCTATATGT
AATACAAGAGAGCACTGCAAAGGAAAATCTGATCACTACTGGGTGGTTGGTATCCATGAAAATCCCCAGCAACTA
AGGTGCATTCTTGTAAAGGTTCTCGGTTTCCCCCAACCCCTTCCACGCCCTGCTGTTGCTATATTATCCTTTAAG
CTTCTTACTGTGATGCAACAGAGAAAGGACAAATGGAGGAGCAATTTTGGCGTTAGTTATATTTTACAAC
CACCTTGATTATTTAGCTAAAAATGGTTATGAATATGAAGAGAGCACTAAAAATCAAGCAACAAAAGAGCAACAG
GAACTTTAAATGAAAATGCTTGCGCTTTCTTGTAAACTGGAGCGAGAATTCGTTGTGTGGAACCTTGCTGATCTA
ATGACTCAAAATGCTGTGAATTTAGCCATTAAATATGCTTCTCGCTCTCGGAAATTAATACTGGCTCAAAAATA
AGTGAAGTGGCTGTAGAGAAAGGCAGCCGAATTGACAGCAACCCAGGTGGAAGAGGAAGAAGAAGAAGATTTC
AGAAAAAGCTGAATGCTGGTTACAGCAATACTGCTACAGAGTGGAGCCAACCAAGGTTTCAAGAAATCAAGTTGAA
GAAGATGCTGAGGACAGTGGAGAAGCTGATGATGAAGAAAAACCAGAAATACATAAGCCTGGACAGAACCTGTTT
TCCAAAAGTACAAATTCCTCTGATGTTTTCAGCTAAGTCAGGTGCAGTTACCTTTAGCAGCCAAGGACGAGTAAAT
CCCTTTAAGGTATCAGCCAGTTCCAAAGAACCAGCCATGTCAATGAATTCAGCACGTTCAACTAATATTTTAGAC
AATATGGGCAAAATCATCCAAGAAATCCACTGCACTTAGTCGAACTACAAATAATGAAAAGTCTCCCATTATAAAG
CCTCTGATTCCAAAGCCGAAGCCTAAGCAGGCATCTGCAGCATCTATTTCCAGAAAAGAAATCTCAAACATAAT
AAAACCTGAGGAAGTGAAAGAAGAAAATCTTAAAAATGTATTATCTGAAACCCCAAGCTATATGCTCCTCCTCAAAAC
ACTGAAAACCAAAGGCCAAAGACCGGTTCCAGATGTGGTTAGAAGAAAAATAGAAGTAATATTTTGTCTGACAAT
CCTGACTTTTTTCAGATGAAGCAGACATAATAAAGAAGGAATGATTTCGATTTAGAGTATTGTCAACTGAAGAAAGA
AAGGTGTGGGCTAACAAAGCCAAAGGAGAAACGGCAAGTGAAGGAACTGAAGCAAAGAAGCGAAAACGTGTGGTT
GATGAAAGTGATGAAACAGAAAACCAGGAAGAAAAAGCAAAAGAGAACCTGAATTTGTCTAAAAAGCAGAAACCT
TTAGATTTTTTCTACAAATCAGAACTATCAGCTTTTGCATTTAAGCAGGAGTAAAGGAAGAAAGTGACCCTAGGG
AAGTAATGGATTTTTTTTACTCATCTTTGAATATAGACTCGAGTCTTTGGGAAACTCATTATATATATATTTTTT
AAAGAGTTTGAAGCAACTGTTTGTCTTTATAAGATAATGTAGTAATTATATTGGTGTAGGTAACAGGACATATGT

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FIGURE 937B

AAAACTATCATCTTTGCAGATTACTCTGCCTCCAAATGCAGGGCCTTTCAGAGATGCATTGTGATTGTAATTAC
TGAGTTGAAGCTCCAACCAATTTGAATTTGTTTCTTAACCTTGAAAAATCATTAAAGCCAAGGTATTAAAACCTT
TGTGCATTAATACCTTCTAGGGGTTTGTTTCATTTGGTTTTTGTGATGTGCAAGGAAGGACAATAGTCCTCTTTC
CAAGTGTGTTAGCATAGACTTCTCTATATGTTTCTACTAGACCTAGGGGATGACGTCTTTTAATAATACTGGCCC
TAAACATGTAAATAATCTTGTAGGTGAGACTTTTCTTTTGTGTTTCGGAAATTCCTATGTGGCTTTCAGTTGT
CTGTTTGTATAGCCTGGATTTTTTTGAGGTAAATGAACTTCTCATTGTAAAAAAAAAAAAAAAAAACTCGAG

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FIGURE 938

MPATRKPMRYGHTEGHTEVCFDDSGSFIVTCGSDGDVRIWEDLDDDDPKFINVGEKAYSCALKSGKLVTAVSNN
 IQVHTFPEGVPDGILTRFTTNANHVVFNNGDGTKIAAGSSDFLVKIVDVMDSQQKTFRGHDAPVLSLSFDPKDIF
 LASASCDGSRVWQISDQTCAISWPLLQKCNVDVINAKSICRLAWQPKSGKLLAIPVEKSVKLYRRESWSHQFDLS
 DNFISQTLNIVTWSPCGQYLAAGSINGLIIVWNVETKDCMERVKHEKGYAICGLAWHTCGRISYTDAGNLGLL
 ENVCDPSGKTSSSKVSSRVEKDYNLDFDGDMSNAGDFLNDNAVEIPSFSGKIINDEDEDLMMASGRPRQRSH
 ILEDDENSVDISMLKTGSSLLKEEEDGQEGSIHNLPLVTSQRPFYDGPMPTPRQKPFQSGSTPLHLTHRFMVWN
 SIGIIRCYNDEQDNAIDVEFHDTSIHHATHLSNTLNYTIADLSHEAILLACESTDELASKLHCLHFSSWDSSKEW
 IIDLPQNEDIEAICLGQGWAAAATSALLRLFTIGGVQKEVFSLAGPVVSMAGHGEQLFIVYHRGTGFDGDQCLG
 VQLLELGKKKKQILHGDPLPLTRKSYLAWIGFSAEGTPCYVDSEGIVRMLNRGLGNTWTPICNTREHCKGKSDHY
 WVGIIHENPQQLRCIPCKGSRFPPTLPRPAVAILSFKLPYCQIATEKGQMEEQFWRSVIFHNHLDYLAKNGYEYE
 ESTKNQATKEQQELLMKMLALSCKLEREFRCVELADLMTQNAVNLAIKYASRSRKLILAQKLSELAVEKAAELTA
 TQVEEEEEEDFRKKLNAGYSNTATEWSQPRFRNQVEEDAEDSGEADDEEKPEIHKPGQNSFSKSTNSSDVSAKS
 GAVTFSSQGRVNPFKVSASSKEPAMSMNSARSTNILDNMGKSSKKSTALSRTTNNEKSPIIKPLIPKPKPKQASA
 ASYFQKRNSQTNKTEEVEENLKNVLSETPAICPPQNTENQRPKTGFQMWLEENRSNLSDNPDFSDEADIKEG
 MIRFRVLSTEERKVVANKAKGETASEGTEAKKRKRVDSEDETENQEEKAKENLNLSSKKQKPLDFSTNQKLSAFA
 FKQE

FIGURE 939

CTTGTCTCCCCTGGTTTGTGAAGTGCAGAAAACCAGAGGCGCAGTCA**ATG**TCGGGATTTCGACGATCCTGGCATT
CTACAGCGACAGCTTCGGGGGCGACGCCAGGCCGACGAGGGGCAGGCCCGCAAATCGCAGCTGCAGAGGCGCTT
CAAGGAGTTCTTCGCGCAGTACCGAGTGGGCACCGACCGCACGGGCTTCACCTTCAAATACAGGGATGAACTCAA
GCGGCATTACAACCTGGGGGAGTACTGGATTGAGGTGGAGATGGAGGATCTGGCCAGCTTTGATGAGGACCTGGC
CGACTACTTGTACAAGCAGCCAGCCGAGCACCTGCAGCTGCTGGAGGAAGCTGCCAAGGAGGTAGCTGATGAGGT
GACCCGGCCCCGGCCTTCTGGGGAGGAGGTGCTCCAGGACATCCAGGTCATGCTCAAGTCGGACGCCAGCCCTTC
CAGCATTTCGTAGCCTGAAGTCGGACATGATGTACACCTGGTGAAGATCCCTGGCATCATCATCGCGGCCTCTGC
GGTCCGTGCCAAGGCCACCCGCATCTCTATCCAGTGCCGCAGCTGCCGCAACACCCTCACCAACATTGCCATGCG
CCCTGGCCTCGAGGGCTATGCCCTGCCCAGGAAGTGCAACACAGATCAGGCTGGGCGCCCCAAATGCCCATTGGA
CCCGTACTTCATCATGCCCGACAAATGCAATGCGTGGACTTCCAGACCCTGAAGCTGCAGGAGCTGCCTGATGC
AGTCCCCCACGGGGAGATGCCCAGACACATGCAGCTCTACTGCGACAGGTACCTGTGTGACAAGGTCGTCCCTGG
GAACAGGGTTACCATCATGGGCATCTACTCCATCAAGAAGTTTGGCCTGACCACCAGCAGGGGGCCGTGACAGGGT
GGGCGTGGGCATCCGAAGCTCCTACATCCGTGTCTTGGGCATCCAGGTGGACACAGATGGCTCTGGCCGCAGCTT
TGCTGGGGCCGTGAGCCCCCAGGAGGAGGAGGAGTTCCGTGCGCTGGCTGCCCTCCCAAATGTCTATGAGGTCTAT
CTCCAAGAGCATCGCCCCCTCCATCTTTGGGGGCACAGACATGAAGAAGGCCATTGCCTGCCTGCTCTTTGGGGG
CTCCCGAAAGAGGCTCCCTGATGGACTTACTCGCCGAGGAGACATCAACCTGCTGATGCTAGGGGACCCCTGGGAC
AGCCAAGTCCAGCTTCTGAAGTTTGTGGAGAAGTGTTCTCCCATTTGGGGTATACACGTCTGGGAAAGGCAGCAG
CGCAGCTGGACTGACAGCCTCGGTGATGAGGGACCCCTTCGTCCCGGAATTCATCATGGAGGGCGGAGCCATGGT
CCTGGCCGATGGTGGGGTCTGTCTGTATTGACGAGTTTGACAAGATGCGAGAAGATGACCGTGTGGCAATCCACGA
AGCCATGGAGCAGCAGACCATCTCTATCGCCAAGGCTGGGATCACCACCACCCTGAATCCCCTGCTCCGTCTCT
GGCTGCTGCCAACTCAGTGTTTCGGCCGCTGGGATGAGACGAAGGGGGAGGACAACATTGACTTCATGCCCACCAT
CTTGTGCGCTTCGACATGATCTTCATCGTCAAGGATGAGCACAATGAGGAGAGGGATGTGATGCTGGCCAAGCA
TGTCATCACTCTGCACGTGAGCGCACTGACACAGACACAGGCTGTGGAGGGCGAGATTGACCTGGCCAAGCTGAA
GAAGTTTATTGCCTACTGCCGAGTGAATGTGGCCCCCGGCTGTGAGCAGAGGCTGCAGAGAACTGAAGAACCG
CTACATCATCATGCGGAGCGGGGCCCCGTGAGCAGAGAGGGACAGTGACCGCCGCTCCAGCATCCCCATCACTGT
GCGGCAGCTGGAGGGCCATTGTGCGCATCGCGGAAGCCCTCAGCAAGATGAAGCTGCAGCCCTTCGCCACAGAGGC
AGATGTGGAGGAGGCCCTGCGGCTCTTCCAAGTGTCCACGTTGGATGCTGCCTTGTCCGGTACCCTGTCAGGGGT
GGAGGGCTTCACCAGCCAGGAGGACCAGGAGATGCTGAGCCGCATCGAGAAGCAGCTCAAGCGCCGCTTTGCCAT
TGGCTCCCAGGTGTCTGAGCACAGCATCATCAAGGACTTCACCAAGCAGAAATACCCGGAGCACGCCATCCACAA
GGTGCTGCAGCTCATGCTGCGGCGGGCGAGATCCAGCATCGCATGCAGCGCAAGGTTCTCTACCGCCTCAAG**TG**
AGTCGCGCCGCTCACTGGACTCATGGACTCGCCACGCCTCGCCCCCTCTGCCGCTGCCTGCCATTGACAATGT
TGCTGGGACCTCTGCCTCCCCACTGCAGCCCTCGAACTTCCCAGGCACCCCTCCTTTCTGCCCCAGAGGAAGGAGC
TGTAAGTGTCTGCTGCCTCTGGGCGCCCGCTCTAGCGCGGTTCTGGGAAGTGTGCTTTTGGCATCCGTTAATAA
TAAAGCCACGGTGTGTTTCAGGTAAAAAAAAAAAAAAAAA

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FIGURE 940

MSGFDDPGIFYSDSFGGDAQADEGQARKSQLQRRFKEFLRQYRVGTDRTGFTFKYRDELKRHYNLGEYWIEVEME
DLASFDEDLADYLYKQPAEHLQLLEEAAKEVADEVTRPRPSGEEVLQDIQVMLKSDASPSSIRSLKSDMMSHLVK
IPGIIIAASAVRAKATRISIQCRSCRNTLTNIAMRPGLEGYALPRKCNTDQAGRPKCPLDPYFIMPDKCKCVDFQ
TLKLQELPDVPHGEMPRHMQLYCDRYLCDKVVPGNRVTIMGIYSIKKFGLTTSRGRDRVGVGIRSSYIRVLGIQ
VDTDGSGRSFAGAVSPQEEEEFRRLAALPNVYEVISKSIAPSIFFGGTDMKKAIACLLFGGSRKRLPDGLTRRGDI
NLLMLGDPGTAKSQLLKFEKCSPIGVYTSKGKSSAAGLTASVMRDPSSRNFIMEGGAMVLADGGVVCIDFDM
REDDRVAIHEAMEQQTISIAGITTTLSRCSVLAAANSVFGRWDETKGEDNIDFMPTILSRFDMIFIVKDEHN
EERDVMLAKHVITLHVSALTQTQAVEGEIDLAKLKKFIAYCRVKCGPRLSAEAAEKLKNRYIIMRSGARQHERDS
DRRSSIPITVRQLEAIVRIAEALSKMKLQPFATEADVEEALRLFQVSTLDAALSGTLSGVEGFTSQEDQEMLSRI
EKQLKRRFAIGSQVSEHSIIKDFTKQKYPEHAHVKVLQMLLRGEIQHRMQRKVLYRLK

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FIGURE 941

GAATTCGGGCGTGGGCGCGGGGGCGCGGCGTGCGGCACGCTGCAGGGCTGAAGCGGCGGCGGCGGTGGGGACTGC
ACGTAGCCCGGCGCTCGGCATGGCTCTCCTGGTGCTCGGTCTGGTGAGCTGTACCTTCTTTCTGGCAGTGAATGG
TCTGTATTCTCTAGTGTATGTGATCGAATTAAGTCCATCAAATTTCAACCGAGAAGTTATTTCAGAGTGATAG
TTTGTGGCTTGTAGAATTCTATGCTCCATGGTGTGGTCACTGTCAAAGATTAACACCAGAATGGAAGAAAGCAGC
AACTGCATTAAAAGATGTTGTCAAAGTTGGTGCAGTTGATGCAGATAAGCATCATTCCTTAGGAGGTCAGTATGG
TGTTTCAGGGATTTCCTACCATTAAAGATTTTTGGATCCAACAAAAACAGACCAGAAGATTACCAAGGTGGCAGAAC
TGGTGAAGCCATTGTAGATGCTGCGCTGAGTGCTCTGCGCCAGCTCGTGAAGGATCGCCTCGGGGGACGGAGCGG
AGGATACAGTTCTGGAACAAGGCAGAAGTGATAGTTCAAGTAAGAAGGATGTGATTGAGCTGACAGACGACAG
CTTTGATAAGAAATGTTCTGGACAGTGAAGATGTTTGGATGGTTGAGTTCTATGCTCCTTGGTGTGGACACTGCAA
AAACCTAGAGCCAGAGTGGGCTGCCGCAGCTTCAGAAGTAAAGAGCAGACGAAAGGAAAAGTGAAGTGGCAGC
TGTTGGATGCTACAGTCAATCAGGTTCTGGCCTCCCGATACGGGATTAGAGGATTTCTTACAATCAAGATATTTCA
GAAAGGCGAGTCTCCTGTGGATTATGACGGTGGGCGGACAAGATCCGACATCGTGTCCCGGGCCCTTGATTTGTT
TTCTGATAACGCCCCACCTCCTGAGCTGCTTGAGATTATCAACGAGGACATTGCCAAGAGGACGTGTGAGGAGCA
CCAGCTCTGTGTTGTGGCTGTGCTGCCCCATATCCTTGATACTGGAGCTGCAGGCAGAAATTCCTTATCTGGAAGT
TCTTCTGAAGTTGGCAGACAAATACAAAAGAAAATGTGGGGGTGGCTGTGGACAGAAGCTGGAGCCCAGTCTGA
ACTTGAGACCGCGTTGGGGATTGGAGGGTTTGGGTACCCCGCCATGGCCGCCATCAATGCACGCAAGATGAAATT
TGCTCTGCTAAAAGGCTCCTTCAGTGAGCAAGGCATCAACGAGTTTCTCAGGGAGCTCTCTTTTGGGCGTGGCTC
CACGGCACCTGTAGGAGGCGGGGCTTTCCCTACCATCGTTGAGAGAGAGCCTTGGGACGGCAGGGATGGCGAGCT
TCCCGTGGAGGATGACATTGACCTCAGTGATGTGGAGCTTGATGACTTAGGGAAAGATGAGTTGTGAGAGCCACA
ACAGAGGCTTCAGACCATTTTCTTTTCTTGGGAGCCAGTGGATTTTCCAGCAGTGAAGGGACATTCTCTACTTT
CTTTTCTTGGGAGCCAGTGGATTTTCCAGCAGTGAAGGGACATTCTCTACACTCAGATGACTCTACCAGTGGCC
TTTTAACCAAGAAGTAGTACTTGATTGGTCATTTGAAAACACTGCAACAGTGAACTTTTGCATCTCAAGAAAACA
TTGAAAAATTCTATGAATTGTTGTAGCCGGTGAATTGAGTCGTATTCTGTACATAATATTTGAAGAAAACCTG
GCTGTGAAACATTTTCTCTCTGACTGCTGCTTGAATGTTCTTGGAGGCTGTTTCTTATGTATGGGTTTTTTTT
AATGTGATCCCTTCATTTGAATATTAATGGCTTTTTCCATTAAAGAATAAATTGGAAAAAAGAAAAAAAAAAAA
GGAATTC

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FIGURE 942

MALLVLGLVSCFFLAVNGLYSSDDVIELTPSNFNREVIQSDSLWLVEFYAPWCGHCQRLTPEWKKAATALKDV
VKVGAVDADKHHS LGGQYGVQGFPTIKIFGSNKNRPEDYQGGRTGEAIVDAALSALRQLVKDRLGGRSGGYSSGK
QGRSDSSSKKDVIELTDDSF DKNVLDSE DVWMVEFYAPWCGHCKNLEPEWAAAASEVKEQTKGKVKLAAVDATVN
QVLASRYGIRGFPTIKIFQKGESPV DYGGRTRSDIVSRALDLFSDNAPPPELLEI INEDIAKRTCEEHQLCVVA
VLPHILDTGAAGRNSYLEVLLKLADKYKKKMWGLWTEAGAQSELETALGIGGFGYPAMAAINARKMKFALLKGS
FSEQGINEFLRELSFGRGSTAPVGGGAFPTIVEREPWDGRDGELPVEDDIDLSDELDDLGKDEL

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FIGURE 943

GCGACCGCTCGTCCGCCCCGGCTTGAGGCCCGCGGGGAGCGCGCCGCAATTCGTCCGCCCCGCGGGGGGGCGGCCTC
CCGGCATCTTCGCGGCGACCAAGGACTACCAGGAAGGGGAGCGGCTGGG**ATGC**GCGCTCCGCGGCCCGCGAGTA
CAAAGCGGGCGACCTGGTCTTCGCCAAGATGAAGGGCTACCCGCACTGGCCGGCCCGGATTGATGAACTCCCAGA
GGGCGCTGTGAAGCCTCCAGCAAACAAGTATCCTATCTTCTTTTTTGGCACCCATGAACTGCATTTCTAGGTCC
CAAAGACCTTTTTCCATATAAGGAGTACAAAGACAAGTTTGGAAAGTCAAACAAACGGAAAGGATTTAACGAAGG
ATTGTGGGAAATAGAAAATAACCCAGGAGTAAAGTTTACTGGCTACCAGGCAATTCAGCAACAGAGCTCTTCAGA
AACTGAGGGAGAAGGTGGAAATACTGCAGATGCAAGCAGTGAGGAAGAAGGTGATAGAGTAGAAGAAGATGGAAA
AGGCAAAAGAAAGAATGAAAAAGCAGGCTCAAAACGGAAAAAGTCATATACTTCAAAGAAATCCTCTAAACAGTC
CCGGAATCTCCAGGAGATGAAGATGACAAAGACTGCAAAGAAGAGGAAAAACAAAGCAGCTCTGAGGGTGGAGA
TGCGGGCAACGACACAAGAAACACAACCTTCAGACTTGCGAGAAAACCAAGTGAAGGGACCT**TAA**CTACCATAATGAAT
GCTGCATATTAAGAGAAACCACAAGAAGGTTATATGTTTTGGTTGTCTAATATTCTTGGATTGATATGAACCAAC
ACATAGTCCTTGTGTCTATTGACAGAACCCCAAGTTTGTATGTACATTATTCATATTCCTCTCTGTTGTGTTTCGG
GGGGAAAAGACATTTTAGCCTTTTTTAAAAGTTACTGATTTAATTTTCATGTTATTTGGTTGCATGAAGTTGCCCT
TAACCACTAAGGATTATCAAGATTTTTGCGCAGACTTATACATGTCTAGGATCCTTTTATCAAGGCAGTTATGAT
CATCGTTTTCTGCCTTGACCCCAACCATCATCAACACTCAGTTAAATATAAATTAACATTTTTTAGATGACCAC
TCAACATAATGCTTAAGAATGGAATTTCTCTCTGTGACAGAACCCAGGAATTAATTCCTAAATACATAACGTTG
GTATATTGAAGACGAAATTTAAATTTGGTCCTTCAGTTTTGAGGCCATGTGTAAAGTTTAACCATATTGTAAAATA
TCTATTCCGTATTAGAAATAGCTAGTTGACAGCTTATACTTCTCAACATTCATATTGTTATGTACACAACTAAG
TTTCTATATGTGAAGTTAGTGAGTCTTTTTGTGTTACTCCAAAATAAAGGCAATGATTTATTTTTTTCCAGTGC
CAATACAATTTTGAGCTAAGCACTCAAGGTGGATACTTTACATTTTAAAGCTGGAATCAGCAACAGCCCTATGGG
AAACCAGACAAAGCATTGACTTTTTAAATGTAGACTTTTAAAATAAACTGTTTTCTTTTGGAACTACAATTAGAAT
AGTTAATATTTCATCCTTAAACCATTATTATGTGTACATTATTGTTGCTATTGTGATAATAGAGAATTTTATTTAT
TTTTATGCCAGCTTATATTGTGAGAACACATTTAGTCAGTTTGGGTTTTATCAATCCTGTTAATGCTTGTCTTG
GAACATCTTTTCGCTATTACGGTTTGTAGTTGAAAAGTTTACTGTAAAAAAATCAAAAACAAAAAATGTATTG
TTTTTACAGAATAAATTTATTGGAATGTGA

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FIGURE 944

MARPRPREYKAGDLVFAKMGYPHWPARIDELPEGAVKPPANKYP IFFFFGTHETAFLGPKDLFPYKEYKDKFGKS
NKRKGFNEGLWEIENNPGVKFTGYQAIQQSSSETEGEGGNTADASSEEGDRVEEDGKGKRRKNEKAGSKRKKSY
TSKKSSKQSRKSPGDEDDKDCKEEENKSSSEGGDAGNDRNTTSDLQKTSEGT

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FIGURE 945A

AATTCTCGAGCTCGTCGACCGGTTCGACGAGCTCGAGGGTTCGACGAGCTCGAGGGCGCGCGCCCGGCCCCACCCC
TCGACGACCCCCGCGCCCCGCGCCCTCCCAGCCGGGTCCAGCCGGAGCCATGGGGCCGGAGCCGAGTGAACACC
ATGGAGCTGGCGGCCCTTGTGCCGCTGGGGGCTCCTCCTCGCCCTCTTGCCCCCGGAGCCGCGAGCACCCAAAGTG
TGCACCGGCACAGACATGAAGCTGCGGCTCCCTGCCAGTCCCAGACCCACCTGGACATGCTCCGCCACCTCTAC
CAGGGCTGCCAGGTGGTGCAGGGAAACCTGGAACCTACCTACCTGCCACCAATGCCAGCCTGTCTTCTCTGCAG
GATATCCAGGAGGTGCAGGGCTACGTGCTCATCGCTCACAACCAAGTGAGGCAGGTCCCACTGCAGAGGCTGCGG
ATTGTGCGAGGCACCCAGCTCTTTGAGGACAACCTATGCCCTGGCCGTGCTAGACAATGGAGACCCGCTGAACAAT
ACCACCCCTGTACAGGGGCTCCCCAGGAGGCTGCGGGAGCTGCAGCTTCGAAGCCTCACAGAGATCTTGAAA
GGAGGGGTCTTGATCCAGCGGAACCCCCAGCTCTGCTACCAGGACACGATTTTGTGGAAGGACATCTTCCACAAG
AACAACCAGCTGGCTCTCACACTGATAGACACCAACCGCTCTCGGGCCTGCCACCCCTGTTCTCCGATGTGTAAG
GGCTCCCCTGCTGGGGAGAGAGTTCTGAGGATTGTGAGAGCCTGACGCGCACTGTCTGTGCCGGTGGCTGTGCC
CGCTGCAAGGGGCCACTGCCCACTGACTGCTGCCATGAGCAGTGTGCTGCCGGCTGCACGGGCCCCAAGCACTCT
GACTGCCCTGGCCTGCCTCCACTTCAACCACAGTGGCATCTGTGAGCTGCACTGCCAGCCCTGGTCACCTACAAC
ACAGACACGTTTGTAGTCCATGCCCAATCCCGAGGGCCGGTATACATTCCGGCGCCAGCTGTGTGACTGCCTGTCCC
TACAACCTACCTTTCTACGGACGTGGGATCCTGCACCCCTCGTCTGCCCCCTGCACAACCAAGAGGTGACAGCAGAG
GATGGAACACAGCGGTGTGAGAAGTGCAGCAAGCCCTGTGCCCGAGTGTGCTATGGTCTGGGCATGGAGCACTTG
CGAGAGGTGAGGGCAGTTACCACTGCCAATATCCAGGAGTTTGTGCTGCAAGAAGATCTTTGGGAGCCTGGCA
TTTCTGCCGGAGAGCTTTGATGGGGACCCAGCCTCCAACACTGCCCGCTCCAGCCAGAGCAGCTCCAAGTGTTT
GAGACTCTGGAAGAGATCACAGGTTACCTATACATCTCAGCATGGCCGGACAGCCTGCCTGACCTCAGCGTCTTC
CAGAACCTGCAAGTAATCCGGGGACGAATTCTGCACAATGGCGCCTACTCGCTGACCCCTGCAAGGGCTGGGCATC
AGCTGGCTGGGGCTGCGCTCACTGAGGGAACTGGGCAGTGGACTGGCCCTCATCCACCATAACACCCACCTCTGC
TTCGTGCACACGGTGCCCTGGGACCAGCTCTTTCGGAACCCGCACCAAGCTCTGCTCCACACTGCCAACCGGCCA
GAGGACGAGTGTGTGGGCGAGGGCCTGGCCTGCCACCAGCTGTGCGCCGAGGGCACTGCTGGGGTCCAGGGCCC
ACCCAGTGTGTCAACTGCAGCCAGTTCCCTTCGGGGCCAGGAGTGCCTGGAGGAATGCCAGTACTGCAGGGGCTC
CCCAGGGAGTATGTGAATGCCAGGCACTGTTTGGCGTGCCACCCTGAGTGTGAGCCCCAGAATGGCTCAGTGACC
TGTTTTGGACCGGAGGCTGACCAGTGTGTGGCCTGTGCCACTATAAGGACCCTCCCTTCTGCGTGGCCCCGCTGC
CCCAGCGGTGTGAAACCTGACCTCTCCTACATGCCATCTGGAAGTTTCCAGATGAGGAGGGCGCATGCCAGCCT
TGCCCCATCAACTGCACCCACTCCTGTGTGGACCTGGATGACAAGGGCTGCCCGCCGAGCAGAGAGCCAGCCCT
CTGACGTCCATCGTCTCTGCGGTGGTTGGCATTCTGCTGGTCTGTTGTTGGGGGTGGTCTTTGGGATCCTCATC
AAGCGACGGCAGCAGAAGATCCGGAAGTACAGATGCGGAGACTGCTGCAGGAAACGGAGCTGGTGGAGCCGCTG
ACACCTAGCGGAGCGATGCCCAACCAGGCGCAGATGCGGATCCTGAAAGAGACGGAGCTGAGGAAGGTGAAGGTG
CTTGGATCTGGCGCTTTTGGCACAGTCTACAAGGGCATCTGGATCCCTGATGGGGAGAATGTGAAAATTCCAGTG
GCCATCAAAGTGTTGAGGGAAAACACATCCCCCAAAGCCAACAAGAAATCTTAGACGAAGCATACTGTATGGCT
GGTGTGGGCTCCCCATATGTCTCCCGCCTTCTGGGCATCTGCCTGACATCCACGGTGCAGCTGGTGACACAGCTT
ATGCCCTATGGCTGCCTCTTAGACCATGTCCGGGAAAACCGCGGACGCCTGGGCTCCCAGGACCTGCTGAACTGG
TGTATGCAGATTGCCAAGGGGATGAGCTACCTGGAGGATGTGCGGCTCGTACACAGGGAAGTGGCCGCTCGGAAC
GTGCTGGTCAAGAGTCCCAACCATGTCAAAATTACAGACTTCGGGCTGGCTCGGCTGCTGGACATTGACGAGACA
GAGTACCATGCAGATGGGGGCAAGGTGCCCATCAAGTGGATGGCGCTGGAGTCCATTCTCCGCCGGCGGTTACCC
CACCAGAGTGATGTGTGGAGTTATGGTGTGACTGTGTGGGAGCTGATGACTTTTGGGGCCAAACCTTACGATGGG
ATCCCAGCCCGGAGATCCCTGACCTGCTGGAAAAGGGGAGCGGCTGCCCCAGCCCCCATCTGCACCATTGAT
GTCTACATGATCATGGTCAAATGTTGGATGATTGACTCTGAATGTGCGCCAAGATTCCGGGAGTTGGTGTCTGAA
TTCTCCCGCATGGCCAGGGACCCCCAGCGCTTTGTGGTCTATCCAGAATGAGGACTTGGGGCCAGCCAGTCCCTTG
GACAGCACCTTCTACCGCTCACTGCTGGAGGACGATGACATGGGGGACCTGGTGGATGCTGAGGAGTATCTGGTA
CCCCAGCAGGGCTTCTTCTGTCCAGACCTGCCCGGGCGCTGGGGGATGGTCCACCACAGGCACCGCAGCTCA
TCTACCAGGAGTGGCGGTGGGGACCTGACACTAGGGCTGGAGCCCTCTGAAGAGGAGGCCCCAGGTCTCCACTG
GCACCCCTCCGAAGGGGCTGGCTCCGATGTATTTGATGGTGACCTGGGAATGGGGGAGCCAAAGGGGCTGCAAAGC
CTCCCCACACATGACCCAGCCCTCTACAGCGGTACAGTGAGGACCCACAGTACCCCTGCCCTCTGAGACTGAT
GGCTACGTTGCCCCCTGACCTGCAGCCCCCAGCCTGAATATGTGAACAGCCAGATGTTCCGGCCCCAGCCCCCT

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FIGURE 945B

TCGCCCCGAGAGGGCCCTCTGCCTGCTGCCCCACCTGCTGGTGCCACTCTGGAAAGGGCCAAGACTCTCTCCCCA
 GGGAAGAATGGGGTCGTCAAAGACGTTTTTGCCTTTGGGGGTGCCGTGGAGAACCCCGAGTACTTGACACCCAG
 GGAGGAGCTGCCCCCTCAGCCCCACCCTCCTCCTGCCTTCAGCCCAGCCTTCGACAACCTCTATTACTGGGACCAG
 GACCCACCAGAGCGGGGGGCTCCACCCAGCACCTTCAAAGGGACACCTACGGCAGAGAACCCAGAGTACCTGGGT
 CTGGACGTGCCAGTGTGAACCAGAAGGCCAAGTCCGCAGAAGCCCTGATGTGTCCTCAGGGAGCAGGGAAGGCCT
 GACTTCTGCTGGCATCAAGAGGTGGGAGGGCCCTCCGACCCTTCCAGGGGAACCTGCCATGCCAGGAACCTGTC
 CTAAGGAACCTTCCTTCCTGCTTGAGTTCCCAGATGGCTGGAAGGGGTCCAGCCTCGTTGGAAGAGGAACAGCAC
 TGGGGAGTCTTTGTGGATTCTGAGGCCCTGCCCAATGAGACTCTAGGGTCCAGTGGATGCCACAGCCCAGCTTGG
 CCCTTTCCTTCCAGATCCTGGGTACTGAAAGCCTTAGGGAAGCTGGCCTGAGAGGGGAAGCGGCCCTAAGGGAGT
 GTCTAAGAACAAAAGCGACCCATTAGAGACTGTCCCTGAAACCTAGTACTGCCCCCATGAGGAAGGAACAGCA
 ATGGTGTGAGTATCCAGGCTTTGTACAGAGTGCTTTTCTGTTTGTAGTTTTTACTTTTTTTGTTTTGTTTTTTTAAA
 GACGAAATAAAGACCCAGGGGAGAATGGGTGTTGTATGGGGAGGCAAGTGTGGGGGGTCCTTCTCCACACCCACT
 TTGTCCATTTGCAAATATATTTTGGAAAC

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FIGURE 946

MELAALCRWGLLALLLPPGAASTQVCTGTDMLRLPASPETHLDMRLHLYQGCQVVQGNLELTYPNTASLSFLQ
DIQEVQGYVLIAHNQVRQVPLQRLRIVRGTLFEDNYALAVLDNGDPLNNTTPVTGASPGGLRELQLRSLTEILK
GGVLIQRNPQLCYQDTILWKDIFHKNNQLALTIDTNRSRACHPCSPMCKGSRCWGESSEDCQSLTRTVCAGGCA
RCKGPLPTDCCHEQCAAGCTGPKHSDCLACLFHNSGICELHCPALVTYNTDTFESMPNPEGRYTFGASCVTACP
YNYLSTDVGSCTLVCPHNPQVTAEDGTQRCEKCSKPCARVCYGLGMEHLREVRAVTSANIQEFAGCKKIFGSLA
FLPESFDGDPASNTAPLQPEQLQVFETLEEITGYLYISAWPDSLPLSVFQNLQVIRGRILHNGAYSLTLQGLGI
SWLGLRSLRELGSGLALIHNTLHLCFVHTVPWDQLFRNPHQALLHTANRPEDECVGEGGLACHQLCARGHCWGPGP
TQCVNCSQFLRGQECVEECRVLQGLPREYVNARHCLPCHPECPQNGSVTCFGPEADQCVACAHYKDPFPCVARC
PSGVKPDLSYMPIWKFPDEEGACQPCPINCTHSCVDLDDKGCPAEQRASPLTSIVSAVVGILLVVVLGVVFGILI
KRRQOKIRKYTMRRLLQETELVEPLTPSGAMPNQAQMRILKETELRKVKVLGSGAFGTVYKGIWIPDGENVKIPV
AIKVLRENTSPKANKEILDEAYVMAGVGSPYVSRLLGICLTSTVQLVTQLMPYGCLLDHVRENRRGLGSQDLLNW
CMQIAKGMSYLEDVRLVHRDLAARNVLVKSPNHVKITDFGLARLLDIDETEHADGGKVPKWMMALESILRRRFT
HQSDVWSYGVTVWELMTFGAKPYDGIPAREIPDLLEKGERLPQPPICTIDVYMIMVKCWMIDSECRPRFRELVSE
FSRMARDPQRFVVIQNEDLGPASPLDSTFYRSLLEDDDMGDLVDAEEYLVPPQGGFFCPDPAPGAGGMVHHRHRS
STRSGGDLTLGLEPSEEEAPRSPLAPSEGAGSDVFDGDLGMAAKGLQSLPTHDPSPQLQRYSEDPTVPLPSETD
GYVAPLTCSPQPEYVNQPDVRPQPPSPREGPLPAARPAGATLERAKTILSPGKNGVVKDVFAFGGAVENPEYLTPO
GGAAPQPHPPPAFSPAFDNLYYWDQDPPERGAPPSTFKGTPTAENPEYLGLDVPV

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FIGURE 947

GGCACGAGGGCGCGGGCGGAGGCTCCCGTGGCCTCGGACGCTCCTCCTAGCTAGCGGGCCGCCGCCCGCCGCCGCT
GCGCCTCCAGCTCCTTCGCCCCGGCGGGCCCGGCCGCTTCCGGCAGCTCACCTGGGAAGCGCTCACCTGGGA
CGCGCTCACCTGGGACGCGCTACCTGCCTCCGGGCGCCTGGGCTTCAGGATGAAGGACCGTCTGGAGCAGCTGAA
GGCCAAGCAGCTGACACAGGATGATGATACTGATGCGGTTGAGATTGCTATCGACAACACGGCTTTTATGGACGA
GTTCTTTTCTGAGATTGAGGAACTCGGCTTAACATTGACAAGATCTCAGAACATGTAGAGGAGGCTAAGAACT
CTACAGTATCATTCTCTCTGCACCGATTCCAGAGCCAAAAACCAAGGATGACCTAGAGCAGCTCACGACTGAGAT
TAAGAAAAGGGCCAACAACGTCCGGAACAACTGAAGAGCATGGAGAAGCATATTGAAGAAGATGAGGTCAGGTC
ATCGGCAGACCTTCGGATTCCGAAATCCCAGCACTCTGTCTTTCTCGGAAGTTTGTGGAGGTGATGACCAAATA
CAATGAAGCTCAAGTGGACTTCCGAGAACGCAGCAAAGGGCGAATCCAGCGGCAGCTCGAAATTACTGGCAAAAA
GACAACCGATGAGGAGCTGGAGGAGATGTTGGAGAGTGGCAACCCGGCCATCTTCACTTCTGGGATCATTGACTC
ACAGATTTCCAAGCAAGCCCTCAGTGAGATTGAGGGACGACACAAGGACATTGTGAGGCTGGAGAGCAGCATCAA
GGAGCTTCACGACATGTTTATGGACATCGCCATGCTGGTGGAGAATCAGGGTGAGATGTTAGATAACATAGAGTT
GAATGTCATGCACACAGTGGACCACGTGGAGAAGGCACGAGATGAAACGAAAAAGCTGTGAAATACCAGAGTCA
GGCCCGGAAGAAATTGATAATTATCATTGTGCTAGTAGTTGTGTTGCTGGGCATTTTAGCATTGATTATTGGACT
TTCCGTTGGGCTGAATTAAAGAGTGGCCTAAGAGGCTGCTGCACTGAAATAAACTGATTTCACTCCAGACTGGTGT
GGCCACCTTGTCTTCAGATGAGAATGGAGTCTGAATGGCCTTCTGAGAGCGAGTGCACCCGTTCTTTGTTT
CCTTGCAACCACCTTGGACCTGACTCAGCTAACAATCTAGCCCTGGGGGAATGTGATCTACCTGATGCGACCT
GAGTTCTCCCAGAGCCTCCTCTGCCCAACAGCTCTCAAGTACCTTTTCTCTGGACTGTGTGGACCCACCCA
GCTTTCTTCTCCCTGTTGTGTGTGTCAGATTATGCCTTGCCTTGGGAAAGCTCTTGTGAGACTCTCCCAAGGTGC
TGTATTTTTCTACCTCATGGAGTATTCTCCAGAACTGCAATGTATTTTTTTAGGGGAGTATCTTTAACAAGC
AGAATGATTCTTCTAAGTTTGGCAACAAGAAGGCTTGGATCTGAGTCTTCTACCTGGCAGGATGCCAATCCTGTT
TGTTGTCCGTATGCTCTGAAAACATGAGGGACTGGCAGATGTCAATTTTGGTCTAAAGAGCTGACTTGTTTGAAAT
TCAGCCTTAAATTAAGCTCTTAGTTGTTTCACTTGGGGGCAACTTTGATTTTTCTCTGTGTTGTAGTCTCTCAT
ATTTACTCAAGGAGGGACCAGGATGATACAGTCACTGAGGTTATGCTTTGCAAAAGGCTGACGGTATGGAATAT
GTTTCCATGTCTGAGTCTTAGAACTGGCTGCTCATTGTTAGAAAAGTGATGCTTTGTGAGACTATTGTCTTGGGG
CCAAAAATAATCAGGGATTTTAAATTGGGCAAGGGACAAGGTGCTAGAATCCTAAGCTCTGGAAATATTTTATGA
CACTGGTGTATTCACTCATGTGTTCCAGATGTATTCTAATTGTGTATGAAATGTATGTACACATAAGTGTGTGTG
TCTCAGGAAGTAGGAAATAAAATGGAAGCTATTATGACCTCAAAAAAAAAAGCCAACCTTTGAGCTAGGATAAA
AATTGGGTAAAGGACATTTGCTTACCTGCAAATGAATCACTGTGGAATGTGATCTTCCCATATCATCAAGAAAC
TTGTTTTCTGGATGAATACTGGGAGAATAAAATGAGAACTCTGGAGTGAGCTAAATTGATCCCAATTAAGTTTTT
CTGCTTAGCAGACAGAAGGTATAATTTTTTGACACCTTTCCACCTGGTGCCTATGCTAGGCTTGTCTGAGAA
CATCCCTCAGTAACTTGATATTCACATGACCTACAGGATGTCCCATCTGCAGGGCTGAGTCAGTTGGGGAACACC
AGAGGCTACACAGTAGCTCTTCTGCTACTCGGTTAATGAGCTTGGCAGGTTCTTTGTCTCACTGAATTCTTATC
ATGGAAACAGCAGCAGCAGCCGCTAGGAAATCTTCAAGTGATGTCTGTGCTAACCAGTGGTAAATCCCTTAG
ATCCCTGCTGGTCTCTGGCAGTCTCCTTGATTTTGGGTACCATGTATATTTCCGCTTTGACTTTAACGCTTTC
TAGGATAGGGTAAGCACCTTAATTCAGGCACTGTCCATTAGCTTCTTTGCAAAGGCTACTTATGGCCGGTCAC
AATCCAGCACTCAGACAGAGCCAAGGCAATATCCTCTTGCCCATGGCTATGATGTCAGACAGTGGATGGGCTCCA
GCAACAAGAGACAAAATAACTAAAGGCCTTTGCTCTCCTCTGACATTGAGGCCTGGGGCTTACAGTTTGAATAC
AACATGTGAAGGTTTTTGTGTTGTTTGTATTTTTTAGATGTAAACTTGATTATTTTATTGCTAATTTAAAAATA
AAAATGACTTTGTATTGATTGTGAAAAA

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FIGURE 948

MKDRLEQLKAKQLTQDDDDTDAVEIAIDNTAFMDEFFSEIEETRLNIDKISEHVVEAKKLYSIILSAPIPEPKTKD
DLEQLTTEIKKRANNVRNKLKSMEKHIEEDEVRSSADLRIRKSQHSVLSRKFEVMTKYNEAQVDFRERSKGRIQ
RQLEITGKKTDEEELEEMLESGNPAIFTSGIIDSQISKQALSEIEGRHKDIVRLESSIKELHDMFMDIAMLVENQ
GEMLDNIELNMHTVDHVEKARDETKKAVKYQSQARKKLIIIVLVVLLGILALIIGLSVGLN

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FIGURE 949

CGGCACGAGGCAAGTGACGCCGAGGGCCTGAGTGCTCCAGTAGCCACCGCATCTGGAGAACCAGCGGTTACC**ATG**

GAGGGGATCAGTATATACACTTCAGATAACTACACCGAGGAAATGGGGCTCAGGGGACTATGACTCCATGAAGGAA
 CCCTGTTTCCGTGAAGAAAATGCTAATTTCAATAAAATCTTCCTGCCACCATCTACTCCATCATCTTCTTAACT
 GGCATTGTGGGCAATGGATTGGTCATCCTGGTCATGGGTTACCAGAAGAAACTGAGAAGCATGACGGACAAGTAC
 AGGCTGCACCTGTCAGTGGCCGACCTCCTCTTTGTCATCACGCTTCCCTTCTGGGCAGTTGATGCCGIGGCAAC
 TGGTACTTTGGGAACTTCCTATGCAAGGCAGTCCATGTCTACACAGTCAACCTCTACAGCAGTGTCTCATC
 CTGGCCTTCATCAGTCTGGACCGCTACCTGGCCATCGTCCACGCCACCAACAGTCAGAGGCCAAGGAAGCTGTTG
 GCTGAAAAGGTGGTCTATGTTGGCGTCTGGATCCCTGCCCTCCTGCTGACTATTCCCGACTTCATCTTTGCCAAC
 GTCAGTGAGGCAGATGACAGATATATCTGTGACCGCTTCTACCCCAATGACTTGTGGGTGGTTGTGTTCCAGTTT
 CAGCACATCATGGTTGGCCTTATCCTGCCTGGTATTGTCTATCCTGTCTGCTATTGCATTATCATCTCCAAGCTG
 TCACACTCCAAGGGCCACCAGAAGCGCAAGGCCCTCAAGACCACAGTCATCCTCATCCTGGCTTTCTTCGCCTGT
 TGGCTGCCCTTACTACATTGGGATCAGCATCGACTCCTTCATCCTCCTGGAAATCATCAAGCAAGGGTGTGAGTTT
 GAGAACACTGTGCACAAGTGGATTTCCATCACCGAGGCCCTAGCTTTCTTCCACTGTTGTCTGAACCCCATCCTC
 TATGCTTTCCCTTGGAGCCAAATTTAAACCTCTGCCCAGCACGCACTCACCTCTGTGAGCAGAGGGTCCAGCCTC
 AAGATCCTCTCCAAAGGAAAGCGAGGTGGACATTCTGTTTCCACTGAGTCTGAGTCTTCAAGTTTTCACTCC
 AGCT**TAA**CACAGATGTAAGAGACTTTTTTTTATACGATAAATAACTTTTTTTAAGTTACACATTTTTTCAGATATA
 AAAGACTGACCAATATTGTACAGTTTTTTATTGCTTGTGGATTTTGTCTTGTGTTTCTTTAGTTTTTCGTGAA
 GGTTAATTGACTTATTTATATAAATTTTTTTTGTTCATATTGATGTGTGTCTAGGCAGGACCTGTGGCCAAGT
 TCTTAGTTGCTGTATGTCTCGTGGTAGGACTGTAGAAAAGGGAAGTGAACATTCCAGAGCGTGTAGTGAATCACG
 TAAAGCTAGAAATGATCCCCAGCTGTTTATGCATAGATAATCTCTCCATTCCCGTGGAAACGTTTTTCCTGTTCTT
 AAGACGTGATTTTGTGTAGAAAGATGGCACTTATAACCAAAGCCCAAAGTGGTATAGAAATGCTGGTTTTTCAGT
 TTTCAGGAGTGGGTTGATTTACGACCTACAGTGTACAGTCTGTATTAAAGTTGTTAATAAAAGTACATGTTAAA
 CTTAAAAAAAAAAAAAAAAAA

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FIGURE 950

MEGISIYTS DNYTEEMGSGDYDSMKEPCFREENANFNKIFLPTIYSIIFLTGIVGNGLVILVMGYQKKLRSM
YRLHLSVADLLFVITLPFWAVDAVANWYFGNFLCKAVHVIYTVNLYSSVLILAFISLDRYLAIVHATNSQRPRKL
LAEKVVYVGWIPALLLTIPDFIFANVSEADDRYICDRFYPNDLWVVFQFHIMVGLILPGIVILSCYCIISK
LSHSGHQKRKALKTTVILILAFFACWLPHYIGISIDSFILLEIKQCEFENTVHKWISITEALAFFHCCLNPI
LYAFLGAKFKTSAQHALTSVSRGSSLKILSKGKRGGHSSVSTESESSSFHSS

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FIGURE 951A

AAGATGGCTGCCCCACGGGGGCTCCGCGGCTCCTCGGCGCTGAAGGGTTAATTCAACAGTTCACCACCATTACC
GGTGCAAGTGAAAGTG TAGGAAAACATATGCTTGAAGCGTGCAACAATAATCTGGAAATGGCAGTCACTATGTTT
TTGGATGGTGAGGAATCGCTGAAGAGCCAGTACCAGTTTCAGCAAGTGCTCTACTGTCAGACCACACACAGAA
GAAGAAGTTTCGTGCCCCAATTCCTCAAAAGCAGGAAATACTGGTGGAACCAGAACCATTATTTGGTGCTCCTAAA
AGACGACGGCCTGCACGTTCAATTTTTTGATGGTTTTCCGGGATTTTCAGACTGAACTATTTCGGCAAGAACAAGAA
TTAAGAAATGGAGGAGCTATCGATAAGAAATTAAC TACCCTTG CAGATCTATTCCGGCCACCATTGATTTGATG
CATAAAGGCAGCTTTGAAACAGCCAAAGAGTGTGGCCAGATGCAAAATAAGTGGCTGATGATAAACATTCAAAT
GTTCAAGACTTTGCATGTCAGTGCCTCAACCGCGATGTGTGGAGCAACGAAGCTGTGAAGAATATTATCCGGGAA
CATTTTCATTTCTGGCAGGTTTATCATGACAGTGAGGAAGGTCAGAGATACATACAGTTTTATAAGTTAGGGGAT
TTCCCTATGTTTCCATATTGGACCCACGGACAGGTCAGAAGCTAGTAGAATGGCACCAGTTAGATGTATCTTCT
TTCTTGGACCAAGTGACGGGATTTCTGGGTGAACATGGACAAC TGGATGGACTTTCTAGCAGTCCCCCAAAAAA
TGTGCCCCGTT CAGAGAGCCTTATAGATGCAAGTGAAGACAGCCAGCTAGAAGCTGCCATCAGAGCCTCCTTACAA
GAAACACATTTTGATTCAACACAGACAAAACAGGATAGCCGCTCAGATGAAGAATCTGAATCTGAACTTTTTCT
GGCAGTGAGGAGTTCATATCCGTTTGTGGCTCTGATGAAGAAGAAGAGGTAGAGAATCTTGCCAAGTCCAGAAAG
TCTCCCCACAAAAGATTTGGGGCATAGAAAAGAGGAGAATAGAAGGCCGCTGACTGAGCCACCAGTCAGAACTGAT
CCTGGAACAGCCACAAACCACCAAGGATTGCCAGCTGTGGATT CAGAGATACTGGAGATGCCACCTGAAAAAGCA
GATGGAGTAGTGGAGGGGATAGATGTAAATGGACCAAAAGCACAGCTGATGTTGCGGTATCCAGATGGAAAAAGG
GAACAGATCACTCTTCCAGAGCAAGCTAAACTGCTAGCTTTGGTGAAGCACGTGCAGTCTAAAGGATACCCAAAT
GAACGTTTTGAACTTCTACCAACTTTCCTCGAAGGAAATTATCTCATCTGGACTATGATATTACATTGCAAGAG
GCAGGCCTTTGTCTCAAGAGACTGTCTTTGTACAGGAAAGAAAT TAAACCATGGCTTGACCTCTCTCAGCTTA
CCCCTTTTTCCCTTTTCTGTGAGATACATGCTACTAAGTATGCATTTTGGCTCATAGGACCACAGAGCCAAAG
TTGGGCAAGCAAGTCACCTTCCTTCTCTTATTTCTTGATCTCTCTATAATCAGTCTCTTCTCCCCCTTTGTTT
CTTTCTCTCTTCTGTTTTCTCGCTCCCCACTCCGTACCCTTCTGCCTCCCCCTCCCCCACACTTTTCTTTCTT
ACCTAATCTGGTGACCAAACTGAAGTGTAAGGATAAGACCTCTCCTAGTACTAGCAGCAGGAATTGTGTGTTCCA
GTAAGTGGTCTCTTGCACGGCACTTTTTTGGGATCAAATGTTAACGTTACTCCCCAGACTCTTCGGGCAAAGGAA
TGGCTAGATTCAGAGTAAGAACAACCCTCCCTTTTTTGTAAGTCCCCGTGTTTAGCAGGGAGAAGAAATTCTCTA
ACATGGGTTTTGGTTTTGTTGTTCTTTCATGTGGAATGTGCGTTAAACAAAATATCCAGGCTTTTGTTTACGTGG
AAAAAGCATCCCTTGTAATGATTGCTCATCTACTTAAAAACCTTTTTCAAAGGATTTTCATGTTCCAGCTATA
AGGACTATTTCCATGACGTGTTATTGGCAGAATGAGTGTTAAATATGGAGCATATAGCATGGGGTGACTTTTCATT
GTCCTAACCTGAGACAGTTTTTCCTTATTACTCTGTATTGATCTCTAGTCCAAGAAATGGACATGAAGTGAACCT
ATCGTGGTGACTGGGATAGGAAGGTGCTTGCTATTTTTGCCAGCACAGCATATTAGTTCCCTTTGGAGCCCTCCAT
TGTCTGAGTCTGCAGTGATCTGTAGGAAGGCAGCTGGTCAATAATCATGTAGTACAA TGGCTTGAATTGTAACC
ACTATGGTTATTGATTGTCCTGTGTTGTTT CAGGCATACTTAGGTATGTCCCTGGGGAAAAAGAAAACCATT CAG
CTGAGAGTTGCTAACCATGTTCTTTTGGTTAGAAATAATGGTTCATTTTTTGCCCTGGTTGGAATAGTCTCTAA
AAGGCTCTGGTGACTGAATTGAACATGAGTCCGCATGCTGTTTTCTTTCAAAGGTATCAAACGGAAAGCCTCT
CTAAGGGGAAGACCTTTCAACTCCATT CAGAAGACAACATTTAGTAAGGAGGATGGCGGAGGTTACTAGTAATTT
TCAGATGTCTTGGGCTTTTTCTGCCAACAAAACCCAAAATCAAATTAGAGTTGGTGAAAGCTTTCTTCAGTGTTT
TTAGAAGAGGCCATCTTGAATCTGTAGAATACCATTTACACATCAACTTCACCTATGCTCATTTCTGATTTTGA
GCTTAAATGGAGTCCTCTGAAGGGGGGGTAGTCGTGATTCTGGTGCAAAACTAGAACTTTTAACTTGTAATAATG
AAAAATATTAAATGGACCTTTTTGT CAGTTGAGGATTTAGATTGATTCTTTTATCTGAGGAGCGTATGTTCTCTCA
GATGTTGCGTAGAGACCTTTAGGTTTTCTACTACTTTAAGATTGCTCTCTTGGCAATTAGGGGATTTGGGAAAAG
AAGAAAAAAGATGCCATGTGTTGCTAGTACACAGTTATAGGATATGGTTTCTAATGGTTGAATTTTGAGGAAC
CTCCCTAAAGAATGAGTTTTATATCTCCTCAAGGAAATCATGGAAAAATCTGTTTATTCTTCAGTGAGTCCTTTT
GAATTAATGTTCTTAAATTTTTTTCTAAGTCTGTGTAAGTGCTTATGTATAAGTATATAATTGTATAAATATTTA
TAAATATATTTATATAATTACGGTTTTCACTTCTACCTTGAGTCAAAGTTCTGTCTTTAGATTGGTGACTGAGTAA
TACTTACACTTTGGTGTTTTTTCTTAGGTTCTTGAGGCTTACTTAACTAGCAGCTTCTGATTTATTGAGTGAAAG
ATGGTTTTTCATGTTAATTCCTCAGTTGCATCTCTGAAC TTGGATAACATACTTGCCGTTTGAAAAATAGAGCTGT
ATACTGTCAAAGGTGCACTGGAGGGTAAACATTTGTTGGTAGTAGACAAGCTCAGAAATCCAAAAATT CAGGGA

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FIGURE 951B

GGGCACAGGGTAAGAAGAGAGGTTTGTCTCAGCTTTGTGCTCTGATGGCACCCATCTGTACTCCAGCAAAGTCATA
GCTGAAGCCCAAATCGCTCAAACGTGTGAAGTCAATCATTTTTCTATAGGGCTCTGTTTCCTTTTCTTTACCTT
CTAGCTTCTCTTGATAAAACAGTTGGGAGAACTGCCAACGTGTTTCATCAGTGAGAGGGTGTGGTTCTTTCCGATA
TGTTTCAGCACGTGCATATTCATTTATGAGAAACCAAAGTAACTTCTTCAACTCGGGTTACTGTGGGATGATTAAG
TAGATATAAAGTGATTTAAAAGACAGCATGGTACTTTCCTCAGCTTAACATGCAGCTGGGATGTCTACAATACA
AGATGTGGTGGGTTTTATTTTATTTTATTTTGTAGGCAGGAGTGAATTATCTTAGGGTTGATATAAAGGCCCATG
GGAAGAGTTACGGATTGTACATGGGAAGAATCCATAAGGAGTATTGCCTTGCTCAAGAATTTAATCCGCTGACAG
TATGCTTCTTCCAGTTTGCCTTACTTCCTCTGCAAGTTTCTTTGCTCCTTAGGGCAGAGGTTTTATTGAATAGAT
TAAATGAGGTCAGTAAGATTAGTTAAAAATAGTCATTCCCTTGTTGGGTGTTGGACACAGCTTGAAAGGAGTGTTTA
AAAAAAAAAAGCTAGGGAGGAAAAGAACAAGAAAGATAGACTTCGAGAGTGATAAGAGAAAAATACAGGGAGATG
GAATGGAACTACCAGGAAGGCCGGGCGCGGTGGCTCATGCCTGTAATCCCAACACTTTGGGAGGCGGAGGTGGG
CAGATCACCTAAGGTCAGGAGATCGAGGCCAGCCTGAGCAACATGGTGAAACCCGCTCTCTACTAAAAATACAAA
AATTACCTGGGTGTGGTGGCGTGCACCTGTAATCCCAGCTACTCAGAGGCTGAGGCAGGGGAATGGCTTGAACCT
GGGAGGCAGAGGTTGCAGTGAGCCAAGATCGCACCATTTACTCCAGCCTGGGCGACAAAGCGACACTCCATCTC
AAATTT

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FIGURE 952

KMAAHGGSAAASSALKGLIQQFTTITGASESVGKHMLEACNNNLEMAVTMFLDGGGIAEEPSTSSASVSTVRPHT
EEVRAPIPQKQEILVEPEPLFGAPKRRRPARSIFDGFRDFQTETIRQEQLRNGGAIDKKLTTLADLFRPPIDLM
HKGSFETAKECGQMKNKWLMINIQNVQDFACQLNRDVWSNEAVKNI IREHFIFWQVYHDSEEGQRYIQFYKLG
FPYVSILDPRTGQKLVEWHQLDVSSFLDQVTGFLGEHGQLDGLSSSPKKCARSES LIDASEDSQLEAAIRASLQ
ETHFDSTQTKQDSRSDEESESELFSGSEEFISVCGSDEEEVENLAKSRKSPHKDLGHRKEENRRPLTEPPVRTD
PGTATNHQGLPAVDSEILEMPPEKADGVVEGIDVNGPKAQLMLRYPDGKREQITLPEQAKLLALVKHVQSKGYPN
ERFELLTNFPRRKLSHLDYDITLQEAGLCPQETVVFVQERN

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FIGURE 953

GGAGGGCCCCGGCGGACAGCGGAGGCAGAGAGGAAGGCGGTTCTGAGAGCTTCAGAGAGCGATGGAAAGCAAAA
TGGGGTGAATTGCCTTTAGACATCAACATCCAGGAACCTCGCTGGGACCAAAGTACTTTCTGGGCAGAGCCCGGC
ACTTTTTCAGTGTACTGATCCTCGAAATCTGCTGCTGTCCGGGGCACAGCTGGAAGCTTCTCGGAACATCGTGC
AGAACTACAGGGCCGGCGTGGTGACCCAGGGATCACCGAGGACCAGCTGTGGAGGGCCAAGTATGTGTATGACT
CCGCCTTCCATCCGGACACAGGGGAGAAGGTGGTCCTGATTGGCCGCATGTCAGCCAGGTGCCCATGAACATGA
CCATCACTGGCTGCATGCTCACATTCTACAGGAAGACCCCAACCGTGGTGTCTGGCAGTGGGTGAATCAGTCCT
TCAATGCCATTGTAACTACTCCAACCGCAGTGGTGACACTCCCATCACTGTGAGGCAGCTGGGGACAGCCTATG
TGAGTGCCACCACTGGAGCTGTGGCCACGGCCCTGGGACTCAAATCCCTCACCAAGCACCTGCCCCCTTGGTCG
GCAGATTTGTGCCCTTTGCAGCAGTGGCAGCTGCCAACTGCATCAACATCCCCCTGATGAGGCAGAGAGAGCTGC
AGGTGGGCATCCCGGTGGCTGATGAGGCAGGTGAGAGGCTTGGCTACTCGGTGACTGCAGCCAAGCAGGGAATCT
TCCAGGTGGTGATTTCAGAATCTGCATGGCGATTCTGCCATGGCCATCCCACCACTGATCATGGACACTCTGG
AGAAAGAAAGACTTCCTGAAGCGCCGCCCTGGCTGGGGGCACCCCTGCAGGTGGGACTGGTGGGCTTCTGCCTGG
TATTTGCAACCCCCCTGTGCTGTGCCCTATTCCCCCAGAAGAGCTCCATACACATAAGCAACCTGGAACCAGAGC
TGAGAGCTCAGATCCATGAGCAAAACCCACAGCGTTGAAGTGGTCTACTACAACAAGGGGCTTT**TG**AGGAGGGTCAG
CCTCTGTCCCTCCCTCACTTCCTTGGGCTGCTGCTTTAGTGAGTCAATGTCACCCCTACCACTTGGCTATCTGC
CTAGCACTGGGCAGGGGCCCTTGGTGGGCAGATGGCAATTGAGGGTAGCAACCTATTAGGGTGGGGGAGGGACCTC
CATAAGGCTTTTCTCCCTTCTCTGGTTTTCAAAGATCAGAGCACATAACCCCTCCTGTGCTTGAGTGTCCATGCA
TATACATACATGATACACATGTGTATGTGTACATTGGGTCTGAAAGCTAGAAGCAGGCATGCTAGCCTAGTATG
TTCTGACATCTGGCTTCCCTTCTCAGCCTCATGTCCACCTGCCTGCCAGCCAGGCTACAGGTGTGACTTCCTTCT
CTAAACTGTTACACCAGCCAAGTTATTTTTGATGGCACCTCATCCCTTCTAGAAATAGGAGGAGCCCCAGGATCT
CAGGACAGAGACTTATAGACACTAGTAGGACAAAGCGGGCTGAATCCTTCAGGTTTCTGATACCTAGCTCCCCAA
GCTGACTGGGCTGGCAGAGGAGAACATGTTGAGACAAGGGAGGCAGGGGACTTATGCATCCCTCAGTGCCATCCC
TTGTATCCTGGAATAGCTCCATTTCCCCTCCTCCTCTTACCAGACAAAGGAGTGCCTGTGTCTGTACTGCCCT
CGCTGTCTCCCCCACCACCCTACTTGACAGCGTGGGCATCTTCAGGCACAGCCTTGGGAGTTCCTGGTGTGCTCT
GACATCATGACCTCAAATCTAAATCCTCCAATCCCAACTCCCTTTCCCAAACAAAAGCCACAGAGGCAGAGCAA
GCATTCCCCTTTAAGAGCTTCCACTGCACCCCTCCCAAGGGACACAGCGGTAGGAATGGTGCTTAAACTCCACA
GGTATCAGAGAGGGTGTAAGTAGGACATCCTCAAGGGCAGCTAGGCCCGAATGTACAATGTTAAGACAGGGAAT
TTTGTTTCCATTGACTTTTTTTTTTTTTTTTAAATGGAGTTTCACTATTTTGCCAGGCTGGAGTGCATGGTGC
GATCTTGGCTCACTGCAACCTCTGCCTCCTGGGTTCAAGTGATTCTCTTGCCTCAGTCTCCCGAGTAGTGGAAT
TACAGGTGTGTGCTACCACATCTTGCTAGTTTTGTATTTTAGCAGAGATGGGGGTTTACCATGTTGGCCAGGC
TAGTCTCGAACTCCTGACCTCAGGTGATCCACCTGCCTTGGCCTCCCAAAGCACTGGGATTACAAGCATGAGCCA
CTGTGCCAGCCTGTTCCACTGACATTTCTTAGACATTACAGCAAAACCCACCTTAACCTCTTTTCTTTCTTGA
GGGTGGTCTGTCCCCACCTCCACCCTCCACCCCTGGAAGAGGAAGGGCCCGGGCATCAGTGGCTAGTCCAA
ATAAAATATGGGCTTGGGGATGGAATGGGTGGTGGTAAGTTCACAGAGTGTAGTTAGATCCCAACTCCCATGACC
TCTGGCTTCAGTGGTGGGTGGGCAGGGCAGATGAAAGGGCTTCAGTGGGAACCTCTGAGAGCATTTTCTGTTC
CCCCATCAACCGCCCCCAGTGATAACATCTGTGAAGCCAGCCATTACTCAATAAACTGCAAACTTGTCTAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 954

MGELPLDINIQEPRWDQSTFLGRARHFFTVTDPRNLLLSGAQLEASRNIVQNYRAGVVTPGITEDQLWRAKYVYD
SAFHPDTGEKVVLIGRMSAQVPMNMTITGCMLTFYRKTPTVVFWQWVNQSFNAIVNYSNRSGDTPITVRQLGTAY
VSATTGAVATALGLKSLTKHLPPLVGRFVPFAAVAAAANCINIPLMRQRELQVGIPVADEAGQRLGYSVTAAKQGI
FQVVISRICMAIPAMAIPPLIMDTLEKKDFLKRRPWLGAFLQVGLVGFCFVFATPLCCALFFPKSSIHISNLEPE
LRAQIHEQNPSVEVVYYNKGL

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FIGURE 955

TGCAGGAGTTCATGATCCTCCCAGTCGGTGCAGCAAACCTTCAGGGAAGCCATGCGCATTGGAGCAGAGGTTTACC
ACAACCTGAAGAATGTCATCAAGGAGAAATATGGGAAAGATGCCACCAATGTGGGGGATGAAGGCGGGTTTGCTC
CCAACATCCTGGAGAATAAAGAAGGCCTGGAGCTGCTGAAGACTGCTATTGGGAAAGCTGGCTACACTGATAAGG
TGGTCATCGGCATGGACGTAGCGGCCTCCGAGTTCTTCAGGTCTGGGAAGTATGACCTGGACTTCAAGTCTCCCG
ATGACCCCAGCAGGTACATCTCGCCTGACCAGCTGGCTGACCTGTACAAGTCCTTCATCAAGGACTACCCAGTGG
TGTCTATCGAAGATCCCTTTGACCAGGATGACTGGGGAGCTTGGCAGAAGTTCACAGCCAGTGCAGGAATCCAGG
TAGTGGGGGATGATCTCACAGTGACCAACCCAAAGAGGATCGCCAAGGCCGTGAACGAGAAGTCCTGCAACTGCC
TCCTGCTCAAAGTCAACCAGATTGGCTCCGTGACCGAGTCTCTTCAGGCGTGCAAGCTGGCCCAGGCCAATGGTT
GGGGCGTCATGGTGTCTCATCGTTCCGGGGAGACTGAAGATACCTTCATCGCTGACCTGGTTGTGGGGCTGTGCA
CTGGGCAGATCAAGACTGGTGCCCTTGCCGATCTGAGCGCTTGGCCAAGTACAACCAGCTCCTCAGAATTGAAG
AGGAGCTGGGCAGCAAGGCTAAGTTTGCCGGCAGGAACCTCAGAAACCCCTTGGCCAAGTAAGCTGTGGGCAGGC
AAGCCTTCGGTCACCTGTTGGCTACACAGACCCCTCCCTCGTGTGCTCAGCTCAGGCAGCTCGAGGCCCCGACCAA
CACTTGCAAGGGTCCCTGCTAGTTAGCGCCCCACCGCCGTGGAGTTCGTACCGCTTCCTTAGAAGTTCTACAGAA
GCCAAGCTCCCTGGAGCCCTGTTGGCAGCTCTAGCTTTTGCAGTCGTGTAATGGGCCCAAGTCATTGTTTTTCTC
GCCTCACTTTCCACCAAGTGTCTAGAGTCATGTGAGCCTCGTGTGCTATCTCCGGGGTGGCCACAGGCTAGATCCCC
GGTGGTTTTGTGCTCAAAATAAAAAGCCTCAGTGACCCATGAGACGGAGATCTCGCCGGCTTTACGTTACCTCG
GTGTCTGCAGCACCTCCGCTTCCTCTCCTAGGCGACGAGACCCAGTGGCTAGAAGTTCACCATGTCTATTCTCA
AGATCCATGCCAGGGAGATCTTTGACTCTCGCGGAATCCCACTGTTGAGGTTGATCTCTTCACCTCAAAATAAA
AAGCCTCAGTGACCCTGCATTTGAGGGTTCAGCAGCATATACCTTCACACTAGGTTTCAGAGCCTGGGAAGAGGA
ATATTAAGACATCTTAACAACAAACCACAACATTGCCTGCATGTCTAAAAGAAAATATGGGCCTGGTGTGGTGGC
TCACACCTGTAATCCCAACACTTTGGGAGCCCGAGXCAG

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FIGURE 956

CCAGGGCCTGACTAAACCTGGAGACTCGGGTGGCCGAGGGGCTTCATACCAGCTGAAGAGCGACAAGCCGCTGGC
AGCCGCGGATCTCACC GCCGCTCAGGGTTTTTAGAACTTCAGCCATAAAAAATCGGGCAGAATTTTCCTTGATCATA
TCGGTGGTACCCGCTCTGTTTTCTTGTCGAACTGTGATACGATCCTGACCAACCGCTCAGAACTCATCTCCACTC
GTTTCACAGGCGCCACTGGCAGAGCATTCTTTTTTAACAAGGTAGTTAACCTGCAGTACAGCGAAGTTCAAGATC
GGGTCATGCTCACTGGCCGCCACATGGTTCGAGATGTGAGCTGCAAAAACTGCAATAGCAAACCTGGGATGGATCT
ATGAGTTTGCCACTGAAGACAGCCAGCGATATAAGGAAGGCCGCGTGATCCTGGAACGTGCTCTAGTTCGAGAGA
GTGAGGGCTTTGAGGAGCATGTACCATCTGATAACTCTTGAAGATACAGAGAGAAATCCATCTTTTCCCAGGTCT
CCTTCACTGAAAACAAAAATCTACTTACATACACTGTACCTTAGCATCAGAGTCGGATTAATGAACTGCGGAAC
AAGAGGTTGTGAGAATCTAAGATGGAACCTTTCTTTCTTTCTTTCTTTTTTTTAAATTTTGTATTTTCCATCCA
ACAGCAGTGTGTAGAGAGAAATATTATGCAGATGCCGTTAATTTTTTACCCTATGTTTACATCTTGAGGCAGCAGA
GTCTGTCTGCAGCTATGTGGTGAGCTATGTAAGGAAAAAAATCTGGGCTGTTAGAGTGAAAAAGTGTGTTTTATG
TCAATTGTGAAAGGAAAAATGTTAGGAGTATGGTTTTTAACTTGGGCTTCATTTTAACTTTTTTTTTTAAACCC
AGTTATTTCACTTGATTGTCTAGCTTCAGAGAAGAGATCCGAATCTGTGCCACGCGCTAAAGGCTCAGTGTTAGC
ATGGCTTGCTGCTGGCCGGTGTGCCATATTCTTGTTGGAGATGAACCGTAGCACCAGAGCCCATCTTCCTTGTC
GTCTTGCCCCAAAGATGTCACCATTCCTAGTTATTTGTACCCACATAATTGGTGTGATTGGAACTTTTTCTGA
GATGGGACAGAAGCTGCTGGGTTGTCTTTTTCCATGTAACCTTAAGCATAGTAATATAAAATAAAGTAATAGTTGGAT
GCTTTTGGTCCTGTGTTGCTTTTAAAAACACCTTATAAAAGAGGAGAGTATTTGATAAGCAATTTTCATAGTAGT
AAAGTTTTTTTTTCATCTCTTAACTAAATTGACCATGCATATAATATTCTTTGTTTAAATGAAAGCATACTGTTG
AAACCCGCAGTGTTCATTTAGAAAACAGTTGAACAGAATGTCAATGTGCATTCATGCAAAAAAACATTTAATCT
GCATCTGTTTTAGAAAAGGGGAAATGAAGCAACTTGCTAAAAATACTGCTTTACAAAGCATTTACGCCCTTCC
CCCTCAGTTTTGCATTGATTTTTTGACAAGTCTGTAGAGCCTAATAGTTCCATCAAAGGCCTAGATCTCTTATT
TAGCATTTTTTTTCAGCTCTTCTCTCAGAAGTTTCTGTTGAAACGAAAACCTGTACTTTGTACCCTCACATACAA
AGGGATCAAATTTGACCTGGTGTATTTTTAGCCCCAAATTTATGACATTACACAATATTAAAATGTAAATGTTTC
TTTACCCAACTACTTCTAGATATTCTAGTATTTGCTTCTGGTGGAAATTAAATGACGGTAAAATTTGGCTAATTAT
TTGAATGAATGAATGGATGGATGTTTTGCATGCTCAATTTCTAGGTCCTTTGTCTAGAAAGGAAATTTGCCTCAG
TTGAATTAGTGAAATATTTCTGTCGTTGATATTTAAAGTGACTTCTGAGTACAGTTAAGTTCCTCCTATTTGCCA
CTGGGCTGTTGGTTAGAAGCATAGGTAAGTATTAAGTAGGTATGATACTGCATTTGAAATAAGTGGACACAAAC
TATCCTTTCTCCACCATGGACTCAATCTGAGAACAACAGCATTCAATTTCCATTCAATTTCCATACTGGCTTTTGAT
TATATGCAGATTCCCTAGTAGCATGCCTTACCTACAGCACTATGTGCATTTGCTGTCACAATAAAGTATATTTGT
CTTGCAAA

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FIGURE 957

MGRIFLDHIGGTRLFSCANDTILTNRSELISTRFTGATGRAFLFNKVNLQYSEVQDRVMLTGRHMVRDVCKN
CNSKLGWIYEFATEDSQRYKEGRVILERALVRESEGFEHVPSDNS

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FIGURE 958

GGCACGAGGGAGAGAACTAGTCTCGAGTTTTTTTTTTTTTTTTTTTGGACAAGATGGCGGCAGGAGGCAGTGGCGT
TGGTGGGAAGCGCAGCTCGAAAAGCGATGCCGATTCTGGTTTCCTGGGGCTGCGGCCCACTTCGGTGGACCCAGC
GCTGAGGCGGCGGCGGCGAGGCCCAAGAAATAAGAAGCGGGGCTGGCGGCGGCTTGCTCAGGAGCCGCTGGGGCT
GGAGGTTGACCAGTTCCTGGAAGACGTGCGGCTACAGGAGCGCACGAGCGGTGGCTTGTTGTCAGAGGCCCAAA
TGAAAAACTCTTCTTCGTGGACACTGGCTCCAAGGAAAAAGGGCTGACAAAGAAGAGAACCAAAGTCCAGAAGAA
GTCACTGCTTCTCAAGAAACCCCTTCGGGTTGACCTCATCTCGAGAACACATCCAAAGTCCCTGCCCCAAAGA
CGTCTCGCCCAACCAGGTCCCCAACGCCAAGAAGCTCAGGCGGAAGGAGCAGCTATGGGAGAAGCTGGCCAAGCA
GGGCGAGCTGCCCCGGGAGGTGCGCAGGGCCCAGGCCCGGCTCCTCAACCCTTCTGCAACAAGGGCCAAGCCGG
GCCCCAGGACACCGTAGAGCGGCCCTTCTACGACCTCTGGGCCTCAGACAACCCCTGGACAGGCCGTTGGTTGG
CCAGGATGAGTTTTCTTGGAGCAGACCAAGAAGAAAGGAGTGAAGCGGCCAGCACGCCTGCACACCAAGCCGTC
CCAGGCGCCCGCCGTGGAGGTGGCGCCTGCCGGAGCTTCTTACAATCCATCCTTTGAAGACCACCAGACCCTGCT
CTCAGCGGCCACGAGGTGGAGTTGCAGCGGCAGAAAGGAGGCGGAGAAAGCTGGAGCGGCAGCTGGCCCTGCCCGC
CACGGAGCAGGCCGCCACCCAGGAGTCCACATTCCAGGAGCTGTGCGAGGGGCTGCTGGAGGAGTCGGATGGTGA
GGGGGAGCCAGGCCAGGGCGAGGGGCCGGAGGCTGGGGATGCCGAGGTCTGTCCACGCCCCGCCCGCTGGCCAC
CACAGAGAAGAAGACGGAGCAGCAGCGGCGGCGGAGAAGGCTGTGCACAGGCTGCGGGTACAGCAGGCCGCGTT
GCGGGCCGCCCGGCTCCGGCACAGGAGCTGTTCCGGCTGCGCGGGATCAAGGCCCAGGTGGCCCTGAGGCTGGC
GGAGCTGGCGCGGCGGCGGAGGCGGCGGAGGCGGCGGAGGCTGAGGCTGACAAGCCCCGAAGGCTGGGACG
GCTCAAGTACCAGGCACCTGACATCGACGTGCAGCTGAGCTCGGAGCTGACAGACTCGCTCAGGACCCTGAAGCC
CGAGGGCAACATCCTTCGAGACCGGTTCAAGAGCTTCCAGAGGAGGAATATGATCGAGCCTCGAGAGAGAGCCAA
GTTCAAACGCAAGTACAAGGTGAAGCTGGTGGAGAAGCGGGCGTTCGTGAGATCCAGTTGTAGCTGCCATCAGA
TGCCGGAGACTCGCCCTTCAATAAAAAATCTCTTAGCTGAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 959

MAAGGSGVGGKRSSKSDADSGFLGLRPTSVDPALRRRRRGPRNKKRGWRRLAQEPLGLEVDQFLEDVRLQERTSG
GLLSEAPNEKLFFVDTGSKEKGLTKKRTKVQKKSLLLKKPLRVDLILENTSKVPAPKDVLAHQVPNAKKLRKEQ
LWEKLAKQGELPREVRRARLLNPSATRAKPGPQDTVERPFYDLWASDNPLDRPLVGQDEFFLEQTKKKGVKRP
ARLHTKPSQAPAVEVAPAGASYNPSFEDHQTLSSAAHEVELQRQKEAEKLERQLALPATEQAATQESTFQELCEG
LLEESDGE GEPGQEGPEAGDAEVCPTPARLATTEKKTEQQRRREKAVHRLRVQQAALRAARLRHQELFRLRGIK
AQVALRLAELARRRRRRQARREAEADKPRRLGRLKYQAPDIDVQLSSELTDLSLTLKPEGNILRDRFKSFQRRNM
IEPRERAKFKRKYKVKLVEKRAFREIQL

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FIGURE 960

GGGCTCTCTCCTTGTCTAGTCGGCGCCGCGTGCGGGCTGGTGGCTCTGTGGCAGCGGGCGGGCGGCAGGACTCCGGCA
CT**ATG**AGCGGCTTCAGCACCGAGGAGCGCGCGGCCCTTCTCCCTGGAGTACCGAGTCTTCCTCAAAAATGAGA
AAGGACAATATATATCTCCATTTTCATGATATTCCAATTTATGCAGATAAGGATGTGTTTCACATGGTAGTTGAAG
TACCACGCTGGTCTAATGCAAAAATGGAGATTGCTACAAAGGACCCTTTAAACCCTATTAAACAAGATGTGAAAA
AAGGAAAACCTTCGCTATGTTGCGAATTTGTTCCCGTATAAAAGGATATATCTGGAACCTATGGTGCCATCCCTCAGA
CTTGGGAAGACCCAGGGCACAATGATAAACATACTGGCTGTTGTGGTGACAATGACCCAATTGATGTGTGTGAAA
TTGGAAGCAAGGTATGTGCAAGAGGTGAAATAATTGGCGTGAAAGTTCTAGGCATATTGGCTATGATTGACGAAG
GGGAAACCGACTGGAAAGTCATTGCCATTAATGTGGATGATCCTGATGCAGCCAATTATAATGATATCAATGATG
TCAAACGGCTGAAACCTGGCTACTTAGAAGCTACTGTGGACTGGTTTAGAAGGTATAAGGTTCCCTGATGGAAAAC
CAGAAAATGAGTTTGCGTTTAATGCAGAATTTAAAGATAAGGACTTTGCCATTGATATTATTAAGCACTCATG
ACCATTTGGAAGCATTAGTGACTAAGAAAACGAATGGAAAAGGAATCAGTTGCATGAATACAACCTTTGTCTGAGA
GCCCCCTTCAAGTGTGATCCTGATGCTGCCAGAGCCATTGTGGATGCTTTACCACCACCCTGTGAATCTGCCTGCA
CAGTACCAACAGACGTGGATAAGTGGTTCCATCACCAGAAAACT**TAAT**GAGATTTCTCTGGAATACAAGCTGATA
TTGCTACATCGTGTTCATCTGGATGTATTAGAAGTAAAGTAGTAGCTTTTCAAAGCTTTAAATTTGTAGAACTC
ATCTAACTAAAGTAAATTTCTGCTGTGACTAATCCAATATACTCAGAATGTTATCCATCTAAAGCATTTCATAT
CTCAACTAAGATAACTTTTAGCACATGCTTAAATATCAAAGCAGTTGTCATTTGGAAGTCACTTGTGAATAGATG
TGCAAGGGGAGCACATATTGGATGTATATGTTACCATATGTTAGGAAATAAAATTATTTTGCTGAAAAAAAAAA
AAAAAA

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FIGURE 961

MSGFSTEERAAPFSLEYRVFLKNEKGQYISPFHDIPYADKDVFMVVEVPRWSNAKMEIATKDPLNPIKQDVKK
GKLRYVANLFPYKGYIWNYGAIPTWEDPGHNDKHTGCCGDNDPIDVCEIGSKVCARGEIIGVKVLGILAMIDEG
ETDWKVIAINVDDPDAANYNDINDVKRLKPGYLEATVDWFRYKVPDGKPENEFAFNAEFKDKDFAIDI IKSTHD
HWKALVTKKTINGKGISCMNTTLESFPFKCDPDAARAIVDALPPCESACTVPTDVKWFHHQKN

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FIGURE 962

AGACGGGCTGCAAGAGGGAGCCGGCCCCGACGCGGACCGCTTCCCTGCAGTGCCCCGAGTCCCGGGCCCCGCGCCGC
CGCCGCCCCGGCTCCGCTCGCGGGCCCTCTGTCTGCAGGCGTGCCCCGGCGGGCGGAGAGCCGTCCTCGGCCGA
GGAGGCTGGGAAACGCGAGCGCAGGCGGCAGAGAGGCCTCAACGCCGTCCCTTTCGCCACCGCCTTTTCCTTGCC
TCGCGCCGCTGTGCATTTCTCTCCTTTTCTTTGTTTTTTGGCCCCCTCGCGGGTGTGGGCATTGTTGGTTAGCA
AAAGTGCAGCCTCAAGATGGCTGATGGCAACGAGGATCTGCGGGCTGACGACTTGCCTGGGCCAGCCTTCGAGAG
CTATGAGTCCATGGAGCTTGCCTGCCCCGCTGAGCGCAGCGGCCACGTAGCCGTCAGCGACGGGCGCCACATGTT
CGTCTGGGGCGGCTACAAGAGTAATCAAGTCAGAGGATTATATGACTTTTATCTGCCTAGAGAAGAACTATGGAT
CTACAACATGGAGACTGGAAGATGGAAAAAATCAACACTGAAGGTGATGTTCCCTCCTTCTATGTCAGGAAGCTG
TGCTGTGTGTGTAGACAGGGTGTGTACTTGTGTTGGAGGACACCATTCAAGAGGCAATACCAATAAGTTCTACAT
GCTGGATTCAAGGTCTACAGACAGAGTGTTACAGTGGGAAAGAATTGATTGCCAAGGAATTCCTCCATCATCAAA
GGACAAACTTGGTGTCTGGGTATATAAAAAACAAGTTAATATTTTTTGGAGGGTATGGATATTTGCCTGAAGATAA
AGTATTGGGAACTTTTGAATTCGATGAAACATCTTTTTTGGAAATTCAGTCATCCAAGAGGATGGAATGATCATGT
ACATATTTTAGATACTGAAACATTTACCTGGAGCCAGCCTATAACTACTGGTAAAGCACCTTCACCTCGTGCTGC
CCATGCCTGTGCAACTGTGCGAAATAGAGGCTTCGTGTTTGGAGGCAGGTATCGAGATGCTAGAATGAATGATCT
TCACTATCTTAATCTGGATACATGGGAGTGGAATGAATTAATTCACAAAGGCATATGCCAGTTGGTCGATCTTG
GCACTCACTAACACCAGTTTCTTCAGATCATCTTTTTCTCTTTGGAGGATTTACCACTGATAAACAGCCACTAAG
TGATGCCTGGACTTACTGCATCAGTAAAAATGAATGGATACAATTTAATCATCCATATACCGAAAAACCAAGGT
ATGGCACACAGCTTGTGCCAGCGATGAAGGAGAAGTAATTGTTTTTGGTGGATGTGCCAACAACTTGCTTGTCCA
TCACAGAGCTGCACACAGTAATGAAATACTAATATTTTCAGTTCAACCAAATCTCTTGTACGGCTAAGCTTAGA
AGCAGTCATTGCTTTAAAGAAATGTTAGCCAACCTCATGGAAGTGCCTTCCAAAACACTTACTTCACAGTGTTAA
TCAGAGGTTTGGTAGTAACAACACTTCTGGATCTTAAGGCTTCATAAAATAATGCCTATGATCACCTTGATGGAC
AGCAATCCTGTAAACATCACAGAGTGGCATCATTTGTATAATTATATGCATTGTTGTAGTTTGCACCTGTTGGTT
TTAATGTGCATGTGAATGGCCTAGAGAACCTATTTTTGTGTCTAAAGTTTACAATAAATGTATTTAACACC

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FIGURE 963

MADGNEDLRADDLPGPAFESYSELMELACPAERSGHVAVSDGRHMFVWGGYKSNQVRGLYDFYLPREELWIYNMET
GRWKKINTEGDVPPSMMSGSCAVCVDRVLYLFGGHHSRGNTNKFYMLDSRSTDRVLQWERIDCQGIPPSSKDKLGV
WVYKNKLIFFGGYGYLPEDKVLGTFEFDETSFWNSSHPRGWNDHVVHILDTETFTWSQPITTGKAPSPRAAHACAT
VGNRGFVFGGRYRDARMNDLHYLNLDTWENELIPQGICPVGRSWHSLTPVSSDHLFLFGGFTTDKQPLSDAWTY
CISKNEWIQFNHPYTEKPRWLWHTACASDEGEVIVFGGCANNLLVHHRAAHSNEILIFSVQPKSLVRLSLEAVICF
KEMLANSWNCLPKHLLHSVNQRFGSNNTSGS

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FIGURE 964

CGGCGACTGACCGTGGTTCGTGGGCGGACGGCGGCTTGCAGCGTGGAGGAGCTGGGGTCGCTGTGGGTGCGGAAGC
AGAGCCCGGGACGTGCGCGCTTGGTGCACGATCCTGAAGGGGAGCTCCGAGGGGCCCCGGGTGCGCAGGGCTGCTG
CGGCCATTCCCGGAGCCCGGCGGGGGCCCCGCGAGATACTGGTTTAGGCCGTCCAGGGCTCCGGGCGCACCCGG
TGGCCGCTGCTGCAGCGGAGGGAGCGCGGGCGCGGGGGCTCGGAGACAGCGTTTCTCCCGGAAGTCTTCCTCG
GGCAGCAGGTGGGAAGTGGGAGCCGGAGCGGCAGCTGGCAGCGTTCTCTCCGAGGTGCGCACCATGCGCCCTGC
AGCCCTGCGCGGGGCCCTGCTGGGCTGCCTCTGCCTGGCGTTGCTTTGCCTGGGCGGTGCGGACAAGCGCCTGCG
TGACAACCATGAGTGGAAAACTAATTATGGTTCAGCACTGGCCTGAGACAGTATGCGAGAAAATTCAAAACGA
CTGTAGAGACCCTCCGGATTACTGGACAATACATGGACTATGGCCCCGATAAAAGTGAAGGATGTAATAGATCGTG
GCCCTTCAATTTAGAAGAGATTAAGGATCTTTTGCCAGAAATGAGGGCATACTGGCCTGACGTAATCACTCGTT
TCCCAATCGCAGCCGCTTCTGGAAGCATGAGTGGGAAAAGCATGGGACCTGCGCCGCCAGGTGGATGCGCTCAA
CTCCCAGAAGAAGTACTTTGGCAGAAGCCTGGAACCTCTACAGGGAGCTGGACCTCAACAGTGTGCTTCTAAAATT
GGGGATAAAACCATCCATCAATTACTACCAAGTTGCAGATTTTAAAGATGCCCTTGCCAGAGTATATGGAGTGAT
ACCCAAAATCCAGTGCCTTCCACCAAGCCAGGATGAGGAAGTACAGACAATTGGTCAGATAGAACTGTGCCTCAC
TAAGCAAGACCAGCAGCTGCAAACTGCACCGAGCCGGGGGAGCAGCCGTCCCCAAGCAGGAAGTCTGGCTGGC
AAATGGGGCCGCCGAGAGCCGGGGTCTGAGAGTCTGTGAAGATGGCCCAGTCTTCTATCCCCCACCTAAAAAGAC
CAAGCATTGATGCCCAAGTTTTGGAAATATTCTGTTTTAAAAAGCAAGAGAAATTCACAACTGCAG

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FIGURE 965

MRPAALRGALLGCLCLALLCLGGADKRLRDNHEWKKLIMVQHWPETVCEKIQNDCRDPPDYWTIHGLWPKSEGC
NRSWPFNLEEIKDLLPEMRAYWPDVIHSFPNRSRFBKHEWEKHGTCAAQVDALNSQKKYFGRSLELYRELDLNSV
LLKLGKPSINYYQVADFKDALARVYGVIPKIQCLPPSQDEEVQTIGQIELCLTKQDQQLQNCTEPGEQSPKQE
VWLANGAAESRGLRVCEGPFVFPKPKTKH

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FIGURE 966

CGGCGACTGACCGTGGTTCGTGGGCGGACGGCGGCTTGCAGCGTGGAGGAGCTGGGGTTCGCTGTGGGTTCGCGAAGC
AGAGCCCCGGGACGTGCGCGCTTGGTGCACGATCCTGAAGGGGAGCTCCGAGGGGCCCCGGGTCCGAGGGGCTGCTG
CGGCCATTCCCGAGCCCGGCGCGGGGCCCCGCGAGATACTGGTTTAGGCCGTCCGAGGGCTCCGGGCGCACCCGG
TGGCCGCTGCTGCAGCGGAGGGAGCGCGGCGGCGCGGGGGCTCGGAGACAGCGTTTCTCCCGGAAGTCTTCTCG
GGCAGCAGGTGGGAAGTGGGAGCCGGAGCGGCAGCTGGCAGCGTTCTCTCCGAGGTTCGGCACCATGCGCCCTGC
AGCCCTGCGCGGGGCCCTGCTGGGCTGCCTCTGCCTGGCGTTGCTTTGCCCTGGGCGGTGCGGACAAGCGCCTGCG
TGACAACCATGAGTGGAAAACTAATTATGGTTCAGCACTGGCCTGAGACAGTATGCGAGAAAATTCAAACGA
CTGTAGAGACCCTCCGGATTACTGGACAATACATGGACTATGGCCCGATAAAAGTGAAGGATGTAATAGATCGTG
GCCCTTCAATTTAGAAGAGATTAAGGATCTTTTGCCAGAAATGAGGGCATACTGGCCTGACGTAATTAAGTCTGTT
TCCCAATCGCAGCCGCTTCTGGAAGCATGAGTGGGAAAAGCATGGGACCTGCGCCGCCAGGTGGATGCGCTCAA
CTCCCAGAAGAAGTACTTTGGCAGAAGCCTGGAAGTCTACAGGGAGCTGGACCTCAACAGTGTGCTTCTAAAATT
GGGGATAAAACCATCCATCAATTACTACCAAGTTGCAGATTTTAAAGATGCCCTTGCCAGAGTATATGGAGTGAT
ACCCAAAATCCAGTGCCTTCCACCAAGCCAGGATGAGGAAGTACAGACAATTGGTCAGATAGAACTGTGCCTCAC
TAAGCAAGACCAGCAGCTGCAAACTGCACCGAGCCGGGGGAGCAGCCGTCCCCCAAGCAGGAAGTCTGGCTGGC
AAATGGGGCCGCCGAGAGCCGGGGTCTGAGAGTCTGTGAAGATGGCCCAGTCTTCTATCCCCACCTAAAAAGAC
CAAGCATTGATGCCCAAGTTTTGGAATATTCTGTTTTAAAAAGCAAGAGAAATTCACAACTGCAG

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FIGURE 967

MRPAALRGALLGCLCLALLCLGGADKRLRDNHEWKKLIMVQHWPETVCEKIQNDCRDPPDYWTIHGLWPKSEGC
NRSWPFNLEEIKDLLPEMRAYWPDVIHSFPNRSRFWKHEWEKHGTCAAQVDALNSQKKYFGRSLELYRELDLNSV
LLKLGIKPSINYQVADFKDALARVYGVIPKIQCLPPSQDEEVQTIGQIELCLKQDQQLQNCTEPGEQPSPKQE
VWLANGAAESRGLRVCEDGPVFYPPPKKTKH

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FIGURE 968

GAATTCCGAGCTTTTTATTCTAAGAGGAGAAAATCAGTAACGGGAGAAAGCAGGAGGATGTCCAGAAGAAATTC
ATCCCTTGCTCTCGCCCTACTCTTTCTGGTGTTAGATCGAGCTACCTCTAAAAGCAGTTTAGAGTGGTAAAAA
AAAAAAAAACACACCAAACGCTCGCAGCCACAAAAGGGATGAAATTTCTTCTGGACATCCTCCTGCTTCTCCCGT
TACTGATCGTCTGCTCCCTAGAGTCCTTCGTGAAGCTTTTTATTCTAAGAGGAGAAAATCAGTCACCGGCGAAA
TCGTGCTGATTACAGGAGCTGGGCATGGAATTGGGAGACTGACTGCCTATGAATTTGCTAAACTTAAAAGCAAGC
TGGTTCTCTGGGATATAAATAAGCATGGACTGGAGGAAACAGCTGCCAAATGCAAGGGACTGGGTGCCAAGGTTT
ATACCTTTGTGGTAGACTGCAGCAACCGAGAAGATATTTACAGCTCTGCAAAGAAGGTGAAGGCAGAAATTGGAG
ATGTTAGTATTTTAGTAAATAATGCTGGTGAGTCTATACATCAGATTTGTTTGCTACACAAGATCCTCAGATTG
AAAAGACTTTTGAAGTTAATGTACTTGCACATTTCTGGACTACAAAGGCATTTCTTCTGCAATGACGAAGAATA
ACCATGGCCATATTGTCACGTGTGGCTTCGGCAGCTGGACATGTCTCGGTCCCCTTCTTACTGGCTTACTGTTCAA
GCAAGTTTGCTGCTGTTGGATTTTATAAACTTTGACAGATGAACTGGCTGCCTTACAAATAACTGGAGTCAAAA
CAACATGTCTGTGTCTAATTTTCGTAAACACTGGCTTCATCAAAAAATCCAAGTACAAGTTTGGGACCCACTCTGG
AACCCGAGGAAGTGGTAAACAGGCTGATGCATGGGATTCTGACTGAGCAGAAGATGATTTTTATTCCATCTTCTA
TAGCTTTTTTAACAACATTGGAAAGGATCCTTCCTGAGCGTTTTCTGGCAGTTTTTAAAACGAAAAATCAGTGTTA
AGTTTGATGCAGTTATTGGATATAAAATGAAAGCGCAATAAGCACCTAGTTTTCTGAAAACAGTTTACCAGGTT
TAGGTTGATGTCATCTAATAGTGCCAGAATTTTAATGTTTGAAGTTCTGTTTTTTCTAATTATCCCCATTTCTTC
AATATCATTTTTGAGGCTTTGGCAGTCTTCATTTACTACCACTGTTCTTTAGCCAAAAGCTGATTACATATGAT
ATAAACAGAGAAATACCTTTAGAGGTGACTTTAAGGAAAATGAAGAAAAAGAACCAAAATGACTTTATTAAAATA
ATTTCCAAGATTATTTGTGGCTCACCTGAAGGCTTTGCAAAATTTGTACCATAACCGTTTATTTAACATATATTT
TTATTTTTGATTGCACTTAAATTTTGTATAATTTGTGTTTCTTTTTCTGTTCTACATAAAATCAGAACTTCAAG
CTCTCTAAATAAAATGAAGGACTATATCTAGTGGTATTTACAATGAATATCATGAAGTCTCAATGGGTAGGTTT
CATCCTACCCATTGCCACTCTGTTTCTGAGAGATACCTCACATTCCAATGCCAAACATTTCTGCACAGGGAAGC
TAGAGGTGGATACACGTGTGCAAGTATAAAAGCATCACTGGGGGATTTAAGGAGAATTGAGAGAATGTACCCAC
AAATGGCAGCAATAATAATGGATCACACTTAACG

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FIGURE 969

MKFLLDILLLLPLLIVCSLESFVKLFIPKRRKSVTGEIVLITGAGHGIGRLTAYEFAKLKSKLVLWDINKHGLEE
TAAKCKGLGAKVHTFVDCSNREDIYSSAKKVKAIEIGDVSILVNNAGVVYTSDLFATQDPQIEKTFEVNVLAHFW
TTKAFLPAMTKNNHGHIVTVASAAGHVSVPFLLAYCSSKFAAVGFHKTLTDELAALQITGVKTTCLCPNFVNTGF
IKNPSTSLGPTLEPEEVVNRLMHGILTEQKMIFIPSSIAFLTTLERILPERFLAVLKRKISVKFDAVIGYKMKAQ

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FIGURE 970

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FIGURE 971

MLESSGCKALKEGVLEKRS DGLLQLWKKKCCILTEEGLLLIPPKQLQHQQQQQQQQQQQQQPGQGPAEPSQPSG
PAVASLEPPVKLKLHFSNMKTVD CVERKGKMYFTVVM AEGKEIDFRCPQDQGWNAEITLQMVQYKNRQAILAV
KSTRQKQOHLVQQPPSQPQPQLQPQPQPQPQPQPQSQPQPQPQKQPQQLHPYPHPHPHPHSHPHSHPH
PHPHPHPHQIPHHPHPQPHSQPHGHRLLRSTNSA

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FIGURE 972

CCCGTATCCGCATCCACATCCACATCCACACTCTCATCTCACTCGCACCCACACCCTCACCCGCACCCGCATCC
GCACCAAATACCGCACCCACACCCACAGCCGCACTCGCAGCCGCACGGGCACCGGCTTCTCCGCAGCACCTCCAA
CTCTGCCTGAAAGGGGAGCTCCCGGGCAAGACAAGGTTTTGAGGACTTGAGGAAGTGGGACGAGCACATTTCTA
TTGTCTTCACTTGGATCAAAAGCAAAACAGTCTCTCCGCCCCGCACCAGATCAAGTAGTTTGGACATCACCTTAC
TGAACAACCTTGGCGATTCTTCTTAGTTTTCTGCATACTTTTCATCACCGATGCAGGAAACGATTTTCGAGTCAAGA
AGACTTTTTATTTATGAACCTTTGAAAGGATCGTCTTGTATGGTGAATTTTCTAGGAGCGATGATGTACTGTAATT
TTATTTTAATGTATTTTGATTTATGATTATTTATAGTTTTTTTTTAAATGCTTGTTCTAAGACATTTCTGAATGT
AGACCATTTTCCAAAAGGAACTTTATTTTCAAAAACCTAATCCGTAGTAATTCCTAATCTTGGAGAATAAAAA
AGGGCGGTGGAGGGGAAAACATTAAAGAAATTTATTCATTATTTCTCGAGTACTTTCAGAAAGTCTGACACTTTTCAT
TGTTGTGCCAGCTGGTTGAAATTA AAACTCTGATATTACTTTTTTTGAGGATTTTTATTTTTGTTTTTGCTTAAA
CACTATAGTTTGTCTAGAAGTTTAAAAAGCTAAAAAGTTAAAAATGGTGTAAATTATGAAAATCTAACACTCAAGAT
AGTTTCTAAAAGGAAATCAGTAGTTAAAGGATACCTGATTTCAAAAATTTTAAAGCATAACCTAACTGATGGTAGG
ATGATTGTATCTTGAATATGTGGTAGGGCCACATCTATTGTAGGAAAACCTTGCTTTTATCATCTGTGTGTAAAG
GGCTTAATAAGGAGAAGAGGCCTTTTGACTGATTTGTGAGTATAAATGCATTTGCTGTTTTCAATTTCAAAAATGTT
GTGGAGGAAAAGAGTACATTTAACTTGTATAAGAGAATATTTGTACTCCTGTCCAGGCTGCAGGACCTTTCTTCG
AGAGCTTTGCACACTTGAAGTGAACCATTTTCTGATCCCTTTACTTTGTTTTAGAAGCACACTGAAAAATCTC
GTTGTTTTAAAGTACAATTTGTAAATATTTCAAAGGTCTAGGAGTCATAACTTTTGTTTTCTACTGAAAATGATG
TTGATCAGAGAAACCACTGTTTTGCTTTTCATTGCTCTGTGAGAAATTGAGGATTCTGTTTTGCTGTTAGGTAA
GCTAACTCAGAAATTGAAAGGAAAGACTGGATAAACACCGGATTTTCAGTAAGAAAACAACCCAGTCTTGCTCTT
AGAAGCCACTTGTTGAGGAGTCTGTTGGGGGAAAAAGAGGATATGCTTTTAAAGGTAGAACAACCTTCTTCTG
TGTTAAATCAAAGGATGTTCAAATCCACCAGGACAGATGCTACTTGGGTTTAAATGGAGCCATAGATGATACA
AAGTCTCTTGGGGCTGAAAATCACTTCCTATTTGCATGGCTTTACTAACTGGTTTTCTGTTTTCCATTATCTTTT
TCACAGAAAGTCTTGCTCAGTATTTTCCAGCATTTAAATGAAACGGTCAGTATTAGACCACTGCTAGGTTATG
TAGTCAAGAAATAAAAATAGAATTACATGCTACAGATGTCTTTATTTCTCTTCCATCTAGAAAGGAGTTCCAAGG
TCAAATTACTTTTTAGTGCAATAGTTAAATGACATTTTGAGATCATAACTCATATCCAAAAGTTGCAGGGAAAA
TTAAAATAGCTTTCCCTATTAAGCTAATGGCAAACAAAACCTAAGTGGACCCCACTTCCAGTGGTTGTTTAGG
TTGCAGTTGTGAAAATATGCTGCCAACATTTAAAAACTTGTTTCATATGTATATATGTATACACATATATGAATA
TGTATGTATATATACATATATGAGAACATGTGTGTACACATATATGAATATGTATATATGTGTATGTATATAT
ATGTATATGAAATGAGAGCCACATCTAAAGATTTCTTAAATCAAGTTTGGTTTCAGCTTCTTAGAACTGTGGCTG
TACTTTTTGAGGAGTACCTCATAGTACTATATTTTTAATGCATGCAAATCATAATAGCTCCAAATGAACCACAGT
TTTTTCCCAATGGAGGATTTTTTTTTTAATTTCTGTACTAAAAAATAATCCATACCAAATATTTTTACAAATT
AAGATTGATGTAGGTTTTTAAAAAGGCATTTGTATGTTGTAGCTTACATATGGGGCTAGGTAATTTTATTGCTT
AAAAAGATGCGCTAGGCTCCCTCTTGGTGGCTGGATTTCTTTTTCTTCGCCCGTGGTGGCCATGGTTTTTAATA
GGGCCACCGGAATCATGTTTTCTTTTTTTTTTTTTTTTGGAGATGGAGTCTCGCCCTGTGACCCAGGCTGGAG
TGCAGTGGCACGATCTCGGCTCACTGCAACCTCTGCCTCTTGGGTTACGCCATTCTCCTGTGTGACGCTCCTGA
GTAGCTGGGACTACAGGTGAATGCCACCACGCCCGGCTGATTTTTGTATTTTTAGTAGAGATGGGGTTTACCAT
AGTGGTCAGGCTGTTCTCGAACTCCTGACCTCAGGTGATCCACCTGCCTTGGCCTCCCAAAGTGCTAGGATTACA
GGTGTGAGCCACCACACCCGGCCCCAGAGTAATGGTTTCTTGACTTTCTGTAGCCCTTGTTTCCTTAGTCTGCTGT
GATATTTATGTTGACCTTTATCATTTTCTATTCTGAACCCCTCTTAGCATTTAATGTGAAATCTAAGAAATTAGA
AGTAGAATGGCTTTTATTGTTTTGACACCTTTGAAATTATTTAATAATTTTTCCAGAGCAAAAAGCAAACAC
GCTCAATAAGACTAAACAAAACAAAATATAAATGTACATCATTTAATGTCCCAGTGGCTCTATTCTACCTGTAAG
AAAAATGATACAAAACCACCTAAGATATTTTGAAGCCTGACAAATCAGCTTCATGAAAAAGGTAAAAAATGCATT
TTTCAACCGAAAGGGCAGATCCAATAGAAGACCCGCTCCTTAAATAAACATAAAATGTAAAAAGTTGAAAAAAA
AA

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FIGURE 973

GTTTCGCGGTGGTTGTTGCTCTCGGGGCCGTGTGGAGTAGGTCTGGACCTGGACTCACGGCTGCTTGGAGCGTCC
 GCC**ATG**AGGAGAAGTGAGGTGCTGGCGGAGGAGTCCATAGTATGTCTGCAGAAAGCCCTAAATCACCTTCGGGAA
 ATATGGGAGCTAATTGGGATTCCAGAGGACCAGCGTTACAAAGAAGTGGTAAAGAAGCATATCAAGGAA
 CTCCTGGATATGATGATTGCTGAAGAGGAAAGCCTGAAGGAAAGACTCATCAAAAGCATATCCGTCTGTCAGAAA
 GAGCTGAACACTCTGTGCAGCGAGTTACATGTTGAGCCATTTTCAGGAAGAAGGAGAGACGACCATCTTGCAACTA
 GAAAAAGATTTGCGCACCCAAGTGGAAATTGATGCGAAAACAGAAAAAGGAGAGAAAAACAGGAACTGAAGCTACTT
 CAAGAGCAAGATCAAGAACTGTGCGAAATTCTTTGTATGCCCCACTATGATATTGACAGTGCCTCAGTGCCGAGC
 TTAGAAGAGCTGAACCAAGTTCAGGCAACATGTGACAACCTTTGAGGGAAACAAAGGCTTCTAGGCGTGAGGAGTTT
 GTCAGTATAAAGAGACAGATCATACTGTGTATGGAAGAATTAGACCACACCCCAGACACAAGCTTTGAAAGAGAT
 GTGGTGTGTGAAGACGAAGATGCCTTTTGTGTTGCTTTGGAGAATATTGCAACACTACAAAAGTTGCTACGGCAG
 CTGGAAATGCAGAAATCACAAAATGAAGCAGTGTGTGAGGGGCTGCGTACTCAAAATCCGAGAGCTCTGGGACAGG
 TTGCAAATACCTGAAGAAGAAAGAGAAGCTGTGGCCACCATTATGTCTGGGTCAAAGGCCAAGGTCCGGAAAGCG
 CTGCAATTAGAAGTGGATCGGTTGGAAGAAGTGAAGTGAAGAAACATGAAGAAAGTGATTGAGGCAATTTCAGTG
 GAGCTGGTTTCAGTACTGGGACCAGTGCTTTTATAGCCAGGAGCAGAGACAAGCTTTTGCCCTTTCTGTGCTGAG
 GACTACACAGAAAGTCTGCTCCAGCTCCACGATGCTGAGATTGTGCGGTTAAAAAACTACTATGAAGTTTACAAG
 GAACTCTTTGAAGGTGTCCAGAAGTGGGAAGAAACCTGGAGGCTTTTCTTAGAGTTTGAGAGAAAAGCTTCAGAT
 CCAAATCGATTTACAAACCGAGGAGGAAATCTTCTAAAGAAGAAAAACAACGAGCCAAGCTCCAGAAAATGCTG
 CCGAAGCTGGAAGAAGAGTTGAAGGCACGAATTGAATTGTGGGAACAGGAACATTCAAAGGCATTTATGGTGAAT
 GGGCAGAAATTCATGGAGTATGTGGCAGAACATGGGAGATGCATCGATTGGAGAAAAGAGAGAGCCAAGCAGGAA
 AGACAACCTGAAGAACAAAAACAGACAGAGACAGAGATGCTGTATGGCAGCGCTCCTCGAACACCTAGCAAGCGG
 CGAGGACTGGCTCCCAATACACCGGGCAAAGCACGTAAGCTGAACACTACCACCATGTCCAATGCTACGGCCAAT
 AGTAGCATTTCGGCTATCTTTGGAGGGACAGTCTACCCTCCCCGTGTCTCGACTTCCTCCTTCTGGCAGCAAG
 CCAGTGCCTGCTTCCACCTGTTTCAGGGAAGAAAACACCCCGTACTGGCAGGCATGGAGCCAACAAGGAGAACCTG
 GAGCTCAACGGCAGCATCCTGAGTGGTGGGTACCCTGGCTCGGCCCCCTCCAGCGCAACTTCAGCATTAAATTCT
 GTTGCCAGCACCTATTCTGAGTTTGCGAAGGATCCGTCCCTCTCTGACAGTTCCACTGTITGGGCTTCAGCGAGAA
 CTTTCAAAGGCTTCCAAATCTGATGCTACTTCTGGAATCCTCAATTCAACCAACATCCAGTCTC**TG**AGAAGCCCTG
 ATCAGTCAACCAGCTGTGGCTTCCTGTGCCTAGACTGGACCTAATTATATGGGGGTGACTTTAGTTTTTCTTCAG
 CTTAGGAGTGCTTGAAACCTTGCCAGGTTCCATGACCATGGGCCTAACTTAAAGATGTGAATGAGTGTTACAGT
 TGAAAGCCCATCATAGGTTTAGTGGTCCTAGGAGACTTGGTTTTGACTTATATACATGAAAAGTTTATGGCAAGA
 AGTGCAAATTTTAGCATATGGGGCTGACTTCTCTACCACATAATTCTACTTGCTGAAGCATGATCAAAGCTTGT
 TTTATTTACCACTGTAGGAAAATGATTGACTATGCCCATCCCTGGGGTAATTTTGGCATGTATACCTGTAAC
 AGTAATTAACATCTTTTTTGTGTTAGGCATGTTCAATTAATGCTGTAGCTATCATAGCTTTGCTCTTACCTGAAGC
 CTTGTCCCCACCACACAGGACAGCCTTCCTCCTGAAGAGAATGTCTTTGTGTGTCCGAAGTTGAGATGGCCTGCC
 CTACTGGCAAAGAGGTGACAGGAAGGCTGGGAGCAGCTTTGTTAAATTGTGTTTCAGTTCTGTTACACAGTGCATT
 GCCCTTTGTTGGGGTATGCATGTATGAACACACATGCTTGTGCGGAACGCTTCTCGGCGTTTGTCCCTTGGCTC
 TCATCTCCCCATTCTGTGCCTACTTTGCCTGAGTTCTTCTACCCCCGAGTTGCCAGCCAGATTGGGAGTCTG
 TTTGTTCCAATGGGTTGAGCTGTCTTTGTCTGTGGAGATCTGGAACCTTTGCACATGTCACTACTGGGGAGGTGTT
 CTGCTCTAGCTTCCACGATGAGGCGCCCTCTTTACCTATCCTCTCAATCACTACTCTTCTGAAGCACTATTATT
 TATTCTTCCGCTGTCTGCCTGCAGCAGTACTACTGTCAACATAGTGTAATGGTTCTCAAAAGCTTACCAGTGTG
 GACTTGGTGTAGCCACGCTGTTTACCTCATACAGTACGTGTCTGTGTTTTTAAAAATATACAATTATTCTTAAAAA
 TAAATTAATAATCGTATACTTACATTTCAAAAAAAAAAAAAAAAAA

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FIGURE 974

MRRSEVLAEESIVCLQKALNHLREIWELIGIPEDQRLQRTVEVKKHIKELDDMMIAEEESLKERLIKSISVCQKE
LNTLCSELHVEPFQEEGETTILQLEKDLRTQVELMRKQKKERKQELKLLQEQQELCEILCMPHYDIDSASVPSL
EELNQFRQHVTTLRETKASRREEFVSIKRQIILCMEELDHTPDTSFERDVCEDEDAFCLSLENIATLQKLLRQL
EMQKSQNEAVCEGLRTQIRELWDRQLPIEEEREAVATIMSGSKAKVRKALQLEVDRLEELKMQNMMKKVIEAIRVE
LVQYWDQCFYSQEQRQAFAPFCAEDYTESLLQLHDAEIVRLKNYYEVHKELFEGVQKWEETWRLFLEFERKASDP
NRFTNRGGNLLKEEKQRAKLQKMLPKLEEELKARIELWEQEHSAFMVNGQKFMEYVAEQWEMHRLEKERAKQER
QLKNKKQTETEMLYGSAPRTPSKRRGLAPNTPGKARKLNTTMSNATANSSIRPIFGGTVYHSPVSRLPSPGSKP
VAASTCSGKKTPRTGRHGANKENLELNGSILSGGYPGSAPLQRNFSINSVASTYSEFAKDPSLSDSSTVGLQREL
SKASKSDATSGILNSTNIQS

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FIGURE 975

GCGGATCATCCGCTTCCGGAGTCGAGGTTTTCGGGCTTGTACCGCTTGGCGGTGCGGCCTGGTGTCGGCTTGCAG
GTTCTTTCTGTGTTTGTCTCTGCCCTGCCAAGGCCGTAGAGCTGGTGCGTGCGGGTAGCGGGGCTCTCCGAGGA
GCGCGGCACGCCGCGCACC**ATG**GTCCACCTCACTACTCTCCTCTGCAAGGCCTACCGTGGGGGCCACTTAACCAT
CCGCCTTGCCCTGGGTGGCTGCACCAATCGGCCGTTCTACCGCATTGTGGCTGCTCACAACAAGTGTCACAGGGA
TGGCCGTTTCGTAGAGCAGCTGGGCTCCTATGATCCATTGCCCAACAGTCATGGAGAAAACTCGTTGCCCTCAA
CCTAGACAGGATCCGTCATTGGATTGGCTGCGGGGCCACCTCTCTAAGCCTATGGAAAAGCTTCTGGGTCTTGC
TGGCTTTTTCCCTCTGCATCCTATGATGATCACAAATGCTGAGAGACTGCCAAGGAAACGGGCACGTGAAGTCCT
GTTAGCTTCTCAGAAAACAGATGCAGAAGCTACAGATACAGAGGCTACAGAAACA**TAA**ATGAGCTGACTTTAGTG
AGCATAGCAGTGGGAACAAGGTCAAGGTCCTTTTGAAACACTGCAGCGATCTTAATTTTGTTAGATTTGGAGTTC
AATAAATGGAGTATCCTGAAAAAAAAAAAA

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FIGURE 976

MVHLTTLLCKAYRGGHLTI RLALGGCTNRPFYRIVA AHNKCPRDGRFVEQLGSYDPLPN SHGEKLVALNLDRI RH
WIGCGAHL SKPMEKLLGLAGFFPLHPMMITNAERLRRKRAREVLLASQKTDAEATDTEATET

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FIGURE 977

GGAGCTCTGGAGGCGGGGCTTCGAGCGTGGCTCGTGGGTTTTCCGTGAAGTCGCGGTGCAGCGGTGGGCGGC**ATG**
 TCTGTGGCCGGTGGGGAGATTCTGTGGGGACACGGGGGGAGAGGACACTGCTGCTCCCGGCCGGTTCAGCTTCAGC
 CCGGAGCCACGCTCGAGGACATCCGCCGCCTCCATGCTGAGTTTGCTGCGGAACGAGACTGGGAACAGTTCCAT
 CAGCCTCGGAATCTCCTCCTGGCCTTGTTGGGGAAGTGGGGGAGCTGGCAGAACTCTTTCAGTGGAAAACCGAT
 GGGGAACCTGGCCCCCAAGGCTGGTCCCCAGGGAACGGGCAGCCCTTCAAGAGGAGCTTAGTGACGTCCTCATC
 TACCTGGTGGCATTAGCAGCCCGCTGCCGTGTGGATCTGCCGCTAGCAGTGCTCTCCAAAATGGACATCAACCGG
 CGACGCTACCCAGCCCATCTGGCCCGCAGCTCTTCCCGCAAGTATACAGAATTGCCCCATGGGGCCATCTCTGAA
 GACCAGGCTGTGGGGCCTGCGGACATTCCCTGTGACTCCACAGGCCAGACCTCAACC**TAG**AAAGATGGCCACAGG
 ACTTGCAACTCAGGGTGGTGTCTGAAGAGCAGAGAGTGGCCTGGCCCTGGAGCCTTTTTCTAGTCTTTTCAGAAT
 AGATCATGGGCCTGAGGCCTCCACTTCTTGAGGTCTGAGGCCAGCAGCCTCTAGAAGGTAGCCTCCTGGTGTTT
 GTTCTCCAGTAAAAATGGTTTTGGGCGATAACTTCTAGATTATTCCTGGATGGCCAGGGAGGCTCTCTGTCTCAG
 CAGGTGATGACGGGGGTACCAGGGGTGCCTCTGAGACCCATTCTCGTGTTTCCCTGTTGTACCTTTTGCCTGCAG
 GGCAGAGAGATCTGGTTTCTAGCAAATTCCCAGTAGGATGTCATGTAAGTTCCTTCCCCCTCTTAGAGATTGAAG
 GCTGTAAGAGTCCAGATGGTGGAGCCAGGCTGTCTGGGTTCAAATGCCATCTTTGACACTTGCAAGCTAAATGAC
 ATTACTCAAATTAATCGTTCTGCACTTCAGCTTCCTTGCTCTATCAAATAAAAAAGAATAGTACCTGCCCAAAAAA
 AAAAAAAAAAAAAAAAAA

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FIGURE 978

MSVAGGEIRGDTGGEDTAAPGRFSFSPEPTLEDIRRLHAEFAAERDWEQFHQPRNLLLALVGEVGEAELFQWKT
DGEPPQGWSRERAAALQEELSDVLIYLVALAARCRVDLPLAVLSKMDINRRRYPAHLARSSSRKYTELPHGAIS
EDQAVGPADIPCDSTGQTST

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FIGURE 979

GAAGGTCAGCGTGTGAAGTAGGCGCTGGCAACGCGGGGTTACCCTGXTXTATTGAGGAGTAACGGCCCAGCGGAC
CACCCAGGCTTGAGGCAGCGGCGGGAACCACTCGGTTTGCTGCGATACCATGGAAGGAGGCGGGGGAAGCGGCAA
CAAAACCACAGGGGGATTGGCCGGCTTTTTTCGGAGCCGGCGGAGCAGGTTACTCGCACGCGGATTGGCTGGCGT
CCCGCTAACTGGTATGAACCTCTGTCTCCTTATTTAAATGTGGATCCACGATACCTCGTGCAGGATACAGATGA
GTTTATTTTACCTACCGGAGCTAATAAAACCCGGGGCAGATTGAGCTGGCCTTCTTTACGATTGGAGGATGTTG
CATGACAGGGGCTGCGTTTGGTGCAATGAATGGTCTTCGGCTAGGATTGAAGGAAACCCAGAACATGGCCTGGTC
CAAACCAAGAAATGTACAGATTTGAATATGGTGACTAGGCAAGGGGCACCTTTGGGCTAATACTCTAGGTTCTCT
GGCTTTGCTCTATAGTGCAATTTGGTGTCATCATTGAGAAAACACGAGGTGCAGAAGATGACCTTAACACAGTAGC
AGCTGGAACCATGACAGGCATGTTGTATAAATGTACAGGTGGTCTTCGAGGGATAGCACGAGGTGGTCTGACAGG
ACTAACACTTACCAGCCTCTATGCACTATATAATAACTGGGAGCACATGAAAGGCTCCTTGCTCCAACAGTCACT
CTGAAGATTTTGCCAATCATGAATGGAGGACACTTCAGTAGTTCATCTAGGATCCTTTTATTAAGGACAGTTTG
GGAGTTATTTCTCTCT

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FIGURE 980

MEGGGSGNKTGGLAGFFGAGGAGYSHADLAGVPLTG MNPLSPYLNVDPRYLVQDTDEFILPTGANKTRGRFEL
AFFTIGGCCMTGAAFGAMNGLRLGLKETQNMAWSKPRNVQILNMVTRQGALWANTLGSLALLYSAFGVIIKTRG
AEDDLNTVAAGTMTGMLYKCTGGLRGIARGGLTGLTLTSLYALYNNWEHMKGSLLQQSL

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FIGURE 981

GGCGAAGGAGATCAGCAGGACGCTGCGCACAAACATGGGCAACCACCTGCCGCTCCTGCCTGCAGAGAGTGAGGAA
GAAGATGAAATGGAAGTTGAAGACCAGGATAGTAAAGAAGCCAAAAAACCAAACATCATAAATTTTGACACCAGT
CTGCCGACATCACATACATACCTAGGTGCTGATATGGAAGAATTTTCATGGCAGGACTTTGCACGATGACGACAGC
TGTCAGGTGATTCCAGTTCTTCCACAAGTGATGATGATCCTGATTCCCGGACAGACATTACCTCTTCAGCTTTTT
CACCTCAAGAAGTCAGTATGGTGCGGAATTTAATTCAGAAAGATAGAACCTTTGCTGTTCTTGCATACAGCAAT
GTACAGGAAAGGGAAGCACAGTTTGAACAACAGCAGAGATATATGCCTATCGAGAAGAACAGGATTTTGGAATT
GAGATAGTGAAAGTGAAAGCAATTGGAAGACAAAGGTTCAAAGTCCTTGAGCTAAGAACACAGTCAGATGGAATC
CAGCAAGCTAAAGTGCAAATTCCTCCGAATGTGTGTTGCCTTCAACCATGTCTGCAGTTCAATTAGAATCCCTC
AATAAGTGCCAGATATTTCTTCAAACCTGTCTCAAGAGAAGACCAATGTTCAATAAATGGTGGCAGAAATAC
CAGAAGAGAAAGTTTCATTGTGCAAATCTAAGTTCATGGCTCGCTGGCTGTATTCTTATATGATGCTGAGACC
TTAATGGACAGAATCAAGAAACAGCTACGTGAATGGGATGAAAAATCTAAAAGATGATTCTCTTCTTCAAATCCA
ATAGATTTTTCTTACAGAGTAGCTGCTTGTCTTCTATTGATGATGTATTGAGAATTCAGCTCCTTAAATTTGGC
AGTGCTATCCAGCGACTTCGCTGTGAATTAGACATTATGAATAAATGTACTTCCCTTTGCTGTAAACAATGTCAA
GAAACAGAAATAACAACCAAAATGAATATTCAGTTTATCCTTATGTGGGCCGATGGAGCTTATGTGAATCCTC
ATGGATATGTGCATGAGACACTTACTGTGTATAAGGCTTGCAACTTGAATCTGATAGGCCGGCCTTCTACAGAAC
ACAGCTGGTTTCTGGGTATGCCTGGACTGTTGCCAGTGTAAGATCTGTGCAAGCCCATATTGGATGGGAAGTT
TACGGCCACCAAAAAAGACATGTCACCTCAAAAATTTGGGGCTTAACGCGATCTGCTCTGTTGCCACGATCCC
AGACACTGAAGATGAAATAAGTCCAGACAAAGTAATACTTTGCTTGTAACAGATGTGATAGAGATAAAGTTATC
TAACAAATTGGTTATATTCTAAGATCTGCTTTGGAATATTGCCTCTGATACATACCTAAGTAAACATAACATT
AATACCTAAGTAAACATAACATTACTTGGAGGGTTGCAGTTTCTAAGTGAACTGTATTTGAACTTTTAAGTAT
ACTTTAGGAAACAAGCATGAACGGCAGTCTAGAATACCAGAAACATCTACTTGGGTAGCTTGGTGCCATTATCCT
GTGGAATCTGATATGTCTGGTAGCATGTCATTGATGGGACATGAAGACATCTTTGGAAATGATGAGATTATTTCC
TGTGTTAAAAAAAAAAAA

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FIGURE 982

MGNHLP LLP AESEEEDEMEVEDQDSKEAKKPNIINFDTSLPTSHTYLGADMEEFHGRTLHDDDDSCQVIPVLPQVM
MILIPGQTLPLQLFHPQEVSMVRNLIQKDRTFAVLAYSINVQEREAQFGTTAEIYAYREEQDFGIEIVKVKAIGRQ
RFKVLELRTQSDGIQQAKVQILPECVLPSTMSAVQLES LNKCQIFPSKPVSREDQCSYKWWQKYQKRKFHCANLT
SWPRWLYSLYDAETLMDRIKKQLREW DENLKDDSLPSNPIDFSYRVAACLPIDDLRIQLLKIGSAIQRLRCELD
IMNKCTSLCCKQCQETEITTKNEIFSLSLCGPMELM

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FIGURE 983

CCC GCGTGCATACGGTTGCCGGC**ATGG**CACATTACAACCTTCAAGAAAATTACGGTGGTGCCGTCCGCCAAGGACT
TCATAGACCTCACGTTGTGCGAAGACTCAACGAAAGACTCCAACCGTTATTCATAAACATTACCAAATACATCGCA
TTAGACATTTTACATGAGAAAAGTCAAATTTACTCAACAGAATTACCATGATAGACTTTACAAATTCTAACAG
ATTTCCCCAAATTGGATGATATTCATCCGTTCTATGCTGATTTGATGAATATTCTCTACGACAAGGATCATTACA
AGTTGGCTCTGGGGCAAATAAATATTGCCAAAAATTTAGTGGACAATGTTGCTAAAGATTATGTGCGACTGATGA
AGTATGGCGACTCTCTCTACCGCTGCAACAGCTGAAGCGTGCGGCCCTGGGACGGATGTGCACAGTGATCAAGA
GGCAGAAGCAGAGTTTGGAGTATTGGAGCAAGTGCGTCAGCATTTATCCCGTTTGCCAACCATTGATCCGAATA
CCAGGACCCCTGCTTTTGTGTGGGTACCCAAATGTTGGGAAGTCCAGCTTCATCAACAAGGTGACGAGAGCAGACG
TGGATGTCCAGCCCTATGCGTTCACAACCAAGTCTCTGTTTGTGGGCACATGGATTATAAGTATCTACGTTGGC
AGGTTGTAGACACTCCTGGGATCCTGGACCACCCTCTGGAGGATAGGAACACCATCGAGATGCAGGCCATCACTG
CCCTGGCCCACTCCGTGCTGCGGTCTGTATGTGATGGATTTGTCTGAGCAGTGTGGGCATGGGCTGAGGGAGC
AGCTAGAACTCTTCCAGAACATCAGACCTCTCTTCATCAACAAGCCTCTCATAGTTGTAGCCAACAAATGTGATG
TGAAGAGAATAGCTGAACCTTTCTGAAGATGATCAGAAAAATTTACAGATTGTCAGTCTGAAGGATTCCCTGTAA
TAGAGACCAGCACCTGACTGAGGAAGGTGTTATTAAGTTAAACAGAGGCTTGCGATAGGCTTTTGGCTCATC
GAGTGGAAACCAAAATGAAGGGAAATAAAGTGAATGAGGTGCTGAATAGACTGCACCTGGCTATCCCAACCAGGA
GGGACGATAAGGAGAGGCCCTTTTCATCCCTGAAGGAGTGGTGGCTCGCAGGAAGAGGATGGAAACTGAGGAGT
CCAGGAAGAAGAGGAACGAGATCTTGAGCTGGAAATGGGAGATGATTATATTTGGATCTTCAGAAGTACTGGG
ATTTAATGAATTTGTCTGAAAAACATGATAAGATACCAGAAATCTGGGAAGGCCATAATATAGCTGATTATATTG
ATCCAGCCATCATGAAGAAATTGGAAGAATTAGAAAAAGAAGAAGAGCTGAGAACAGCTGCTGGAGAGTATGACA
GTGTATCTGAGAGTGAAGACGAAGAGATGCTGGAAATCCGACAGCTGGCAAAGCAAATTCGAGAGAAAAAGAAGT
TGAAAAATTCTGGAGTCCAAAGAAAAGAATACACAGGGACCCAGGATGCCGCGAACTGCTAAGAAGGTTTCAGAGGA
CAGTTTTGGAGAAGGAGATGCGTAGTCTTGGTGTGACATGGACGATAAAGACGATGCCCATACGCAGTCCAGG
CAAGAAGATCCCGGAGCATCACTAGGAAAAGAAAGCGGGAAGACTCTGCTCCCCGTCCTCTGTGGCCCGGAGTG
GGAGTTGCTCTCGAACTCCACGTGACGTTTCTGGTCTTAGGGATGTCAAGATGGTGAAGAAAGCCAAGACTATGA
AGAATGCTCAGAAGAAGATGAATCGGTTGGGGAAGAAAGGGGAGGCGGATAGACACGTGTTTGATATGAAGCCCA
AGCACTTGCTGTCTGGGAAGAGGAAAGCTGGTAAAAAGGACAGGAGAT**TAGT**ATCCGTTTGGTTGGCGTGGCTTCG
CTAGAGTGTTGCTGTTTTATTTCTGGTTTGGTACAGTATGGTTTCATGAAATTGGAGCTCTGTACAAACTGAAAA
AGACAAAATAAGTAAAGCACTTGTTGCTTTGCTGAAAACTATGGTTAACCTATATAGGTGTGGGAAATTTTTGT
CACTGCATAATATTACAAATATTTTGAGTAGACAGTGTTCACATTTAATGGAGTATCAGTTGCTTCAGATTTT
CAGAACTGGGAAGATTTACTGGTGTAACTGGGTTGTTTTGATGGAGAAAAACCTTATTTTCTTTTGTAAGAGCT
GGGAGCAAAACACGTTTATGAGTGTGTGCGGAATCCCGTGCTTAAATACGCTCTTAAATTATTTTCTAGTCTTAT
TTACAATGTCTCATTGTAGTCTGTCTTCAACTATTTTATCCAAAATAAACCTCCAGAAGAACTAAAAAAAAAAAA
AAAAAAAAAAAAAAAA

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FIGURE 984

MAHYNFKKIIVVPSAKDFIDLTLSKTQRKTPTVIHKHYQIHRIRHFYMRKVKFTQQNYHDRLSQILTD FPKLDDI
HPFYADLMNILYDKDHYKLALGQINIAKNLVDNVA KDYVRLMKYGDSL YRCKQLKRAALGRMCTVIKRQKQSLEY
LEQVRQHLSRLPTIDPNTRTLLCGYPNVGKSSFINKVTRADV DVQPYAFTTKSLFVGHMDYKYLRWQVVDTPGI
LDHPLEDRNTIEMQAITALAH LRAAVLYVMDLSEQCGHGLREQL ELFQNI RPLFINKPLIVVANKCDVKRIAELS
EDDQKIFTDLQSEGFPVIETSTLTEEGVIKVKTEACDRLLAHRVETKMMGKNKVNEVLNRLHLAIPTRRDDKERPP
FIPEGVVARRRKMETEESRKKRERDLELEMGDDYILD LQKYWDL MNLSEKHDKIPEIWEGHNIADYIDPAIMKKL
EELEKEEELRTAAGEYDSVSESEDEEMLEIRQLAKQIREKKKLKILESKEKNTQGPRMPRTAKKVQRTVLEKEMR
SLGVMDDDKDDAHYAVQARRSR SITRKRKREDSAPPSSVARSGSCSRTPRDVSGLRDVKMVKKAKTMKNAQKKMN
RLGKKGEADRHVFDMPKPKHLLSGKRKAGKKDDR

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FIGURE 985

GGCTGCGAGAAGACGACAGAAGGGGGAAGGGGCTGATGCGAACTGGGGCCACGGTAGCCATCGCGCTTTGCAGTT
 CGGTCTCCTGGTGTACGGCCAACGCCAAGTAGGGGATTGCGTTCCCTCCAGTCGCAGACCCCTATCAGATTTGGAT
ATGTCCCTTCATATTTGATTGGATTTACAGTGGTTTCAGCAGTGTGCTACAGTTTTTAGGATTATATAAGAAAAC
 GGTAAACTGGTATTTCTTGGATTGGATAATGCAGGAAAAACAACATTGCTACACATGCTAAAAGATGACAGACTT
 GGACAACATGTCCCAACATTACATCCCACTTCCGAAGAAGTACCATTGCTGGCATGACGTTTACAACTTTGTGAT
 CTGGGTGGACATGTTCAAGCTCGAAGAGTGTGGAAAACTACCTTCCTGCTATCAATGGCATTGTATTTCTGGTG
 GATTGTGCAGACCACGAAAGGCTGTTAGAGTCAAAAGAAGAACTTGATTCACTAATGACAGATGAAACCATTGCT
 AATGTGCCTATACTGATTCTTGGGAATAAGATCGACAGACCTGAAGCCATCAGTGAAGAGAGGTTGCGAGAGATG
 TTTGGTTTTATATGGTCAGACAACAGGAAAGGGGAGTATATCTCTGAAAGAACTGAATGCCCCGACCCTTAGAAGTT
 TTCATGTGTAGTGTGCTCAAAAAGACAAGGTTACGGAGAAGGCTTCCGCTGGATGGCACAGTACATTGATTAACAC
 AAACACATTGGTTCCAGGTCTCAACGTTACAGGCTTACTCAGAGATTTGATTGCTCAACATGCATAACTTGAAT
 TCAATAGACTTTTGGCTGGTTATAAAACAGATGTTTTTTAGATTATTAATATTAATCAACTTAATTTGAATGAGA
 ATTGAAACTGATTCAAGTAAGTTTGAGTATCACAATGTTAGCTTTCTAATTCCATAAAAGTACTTGGTTTTTAC
 AGTTTATAATCTGACATCACCCAGCGCCATTTGTAAAGAGCAACTTTCCAGCAGTACATTTGAAGCACTTTTAA
 ACAACATGAAACTATAAACCATATTTAAAAGCTCATCATGTAAATTTTTTATGTACTTTTCTGGAAGTAGTTTT
 TAAATTTTAGATTATATGTCCACCTATCTTAAGTGTACAGTTAATAATTAGCTTATTCAATGATTGCATGATGCC
 TTACAGTTTTCAATAACTTTTTTTCTTATGCAAACGTCATGCAATAAAACAACTCTAATGTTTGGCAAAAAAA
 AAAAA

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FIGURE 986

MSFIFDWIYSGFSSVLQFLGLYKKTGKLVFLGLDNAGKTTLLHMLKDDRLGQHVPTLHPTSEELTIAGMTFTTFD
LGGHVQARRVWKNYLPAINGIVFLVDCADHERLLESKEELDSLMTDETIANVPILILGNKIDRPEAISEERLREM
FGLYGOTTGKGSISLKELNARPLEVFMCSVLKRQGYGEGFRWMAQYID

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FIGURE 987A

CCGGCCCGGCCCGCCCGGCCAGCCGCTCCTGCTGGGCGCCCCAACCGGGTCCGGCCCGGGGGGGCGGGGGCCGC
GGCCCGCAGGATGGGGAAATCCAACAGCAAGTTGAAGCCCGAAGTTGTGGAGGAGCTGACCAGGAAGACCTACT
TTACCGAGAAGGAGGTCCAGCAGTGGTACAAAGGCTTCATCAAGGACTGCCCCAGTGGGCAGCTGGATGCGGCAG
GCTTCCAGAAGATCTACAAGCAATTCTTCCCGTTTCGAGACCCACCAAGTTTGCCACATTTGTTTTCAACGTCT
TTGATGAAAACAAGGACGGGCGAATTGAGTTCTCCGAGTTTCATCCAGGCGCTGTCGGTGACCTCACGGGGAACCC
TGGATGAGAAGCTACGGTGGGCCTTCAAGCTCTACGACTTGGACAATGATGGCTACATCACCAGGAATGAGATGC
TGGACATTGTGGATGCCATTTACCAGATGGTGGGGAATACCGTGGAGCTCCAGAGGAGGAGAACAACCTCTGAGA
AGAGGGTGGACCGGATCTTTGCCATGATGGATAAGAATGCCGACGGGAAGCTGACCCTGCAGGAGTTCCAGGAGG
GGTCCAAGGCAGACCCGTCCATTGTGCAGGCGCTGTCCCTCTACGACGGGCTGGTATAGTCCAGGCTGGAGCTG
GATGCCTGGGAACCACTCACCTCCTTCTGTGCCATGAGGCCACCTCAGCCCTGACACCAACCCCGTGCCTCCACC
CAGCCTTCTTCCGCATCCACACACAGCCGGCTGCCCTTGACCCGGGAGGCCCCGGCTCTCCTCTCCCTGTCTCTG
CACCCATCCCCCGCCTGAAGCCACCGGCTCCAATTGCCAGCAACCTCTGCTTGTCCGAAAACGACAACACGAAA
TGGAAAAGGCTACAGCCCTCTGCATAAACCAAGGACTTGGCTGCCTCGCAGGCAGCCTCCGTTCTCTCCGCTCTC
TTGCGCGTGTGCTTTTTGTTTTTATTTTGAACAGACGTTTTTAAAGAAAAAACAACCTACCTTCTGTCTCTAGA
AGACACAGACTGACAGATGGGGTGAAGGCCTGGGGACCTCAGAGAACTCTGCCTTGCCCTCGTCCCTCGTCTCTC
GGCAGCCGGAGAGGCTGTGGGTGGGCCGAGGGTGTCTAGGGGTTCTGCCTAGTCAACGTTATTTGTCTCTCCATC
TTTTGGCAGCAAAACCACCTGCGTGGCTAGGATGATTAATTATGAGGATGATGATTTTTTTTTGTGATAACAGTAT
TGTGCTTTTTGTGGGGAAGTGAGGTTTTTTTTTATATACATATATAATTGATATCTTTAATTTATTGGTTGTT
AACTGTTGCTGCTGCCTGGTGTGCTCAGCTCCCAGGGCTGCGGGCCACCGTTTACATGTGCACGCCCTGACC
CACCTGCCCACGCCGACTTGGGAGGATGGTGGCCTGCAGCGGCCAAGAAGCCAAAAAATTTTTTTTTTTTCAG
ATACTGTGCTTGATTTTTGGAGAGGGGAGAGGTGGAATTCCTAAATGGCTAATGCACTGTTCCCTCCAGCCGA
ATGCCTCTGCCAAACCCCTTTTCCCTGCTGCCTCTGTCCCCGCATCCTTGTCTCCCTGGGTCCGTAACATTT
TTTCCGAGGATGAACAGGGGACATCTTTAGGTTTCTCAACTCTTGCTTTGGTGTGTTGCCGAGCATGGAACAG
GGCGCCTAAGGCTGGGAGCTGGAAGAAGGGGCATTGGGTACCCAGGCAGAGTCAGGAGAGGTGGTCTTTGAAGTA
AGTTAGCAGAAATCAAGGGGACCCCGCCTCCTTGGGCTGGGGAGGGGATTTCAAGATAGTTCATAACTCTCTCC
CGCTCTGCCTTCCCTCCTTCTATCTGCTTTTTTCCAGTAAACTGCATGGTGTCTTCCCTGGCCTTCTCTTGGCT
CAAAGGCTGGGAGGGAGGGAAGGAGAGAAGAGTTCCAGGCAATCCCATCAATATAGTCCCTACACCTGGGGCTGC
GGCCACATGTCTTCACGAGGCTTCCAGCGGTGCCTGCCACTGAGGCAGGTGCGGCCCCAGGACCATCACCAGG
AATGCGAGGCCACCCTGGACCAGAGGTAGGAGCCCAAGGTCCGGCCCTTGCTCTTTGATTGTGGGCAGCCTCCTG
CCCTCTCTGGGTCTCAGTTGCCCCATCTGCAGAGCGAGGAGGCCCGGCTGGTTGGTCTTGAAGGCCCTTTTCCA
TGCCGACATCATGTCACTCTAGGCCTGGGGTTTCACTTCTGTGGCTGGTGTGCTGTTAAGTTTGCTTGAC
CCCAGCAGCCCGAGGGACTGTCTGAGTCACAGCACAGCCCTATTGCGTGGCTGCTGGTGTGTGGGGTCAGTTCC
AGCAGATGAATGTGTATGTGGCACACCTTGTCCCTTCCCGCAGCATTCTCTGGTTCCCCCAGACCCTTGAGCG
CTCTTTGGGACCCAGAAGGAGTCTTGCACAGGGAAGGCTTGAGGTGAGAAGCCGCTTCCAGACTGTGAGGGCC
AGGCCTGGGTCTAGAATTCTTGCTGCTGCTTTGCAGAGTCAACAGCCCATCAGCCCATGTTTTAGAGGGGACACT
TTGGTCTCGGTTCCCACCTCAGCAAGCAGGCCTCAGCCCGAGGAAGGCCTTGCCGTAGTGACGTTGCCGTG
TGGGGCTGCGTGGCTGTTCCCTTGGCTGGAGCATTAGCCAACCCACAGCGTCCCCCTGAGGCGTTTATTGGCA
GCCCCCTAGGACTGCACGCTGGCCCCACGGTAACCCCCCTCCCCACCAACATCCTGCAGGGATGGGGTCAGTG
GTTCCACCTTACAGGCCACTTTGAAGGGTGGATTCTTTGAGGCCCCTGCCAGTCGGCTCCCTGCTCAGCTGCTG
GCCCCGGGCGACCTGGGACTCAGCACCAACGGCTGAAGTTTCTCAGCTGGGCTCTGACCTGGGGTCTGGGGCAGGG
AACGAACATGGTGGCTTTGGGCTGAGAGGATGAGGGAGGTCTTTCCAGGTCAAATTACTTTCTTTGGCCTCTG
CCTGAGGCTCGATTGCTCTCTGGTCCAATGGGACTGACACTGTTGTACAACCTGACCTGTGGCTGAGGGTGTG
TGGGCTTAAGCATGTGGACCCCTTCGGTGTGTCTGGCCTTCCCTCCATCGTCCCTTGGCCTTTTGGTTTGA
AGCCACAGGTGTGGCTTCTGGCTTAGCAGATGGTATGCTTGGCGACCGCAGCCAGCATGCCGGTGGGCCACA
GCCCCAGCCAGCCAGAGCTGCCGAAGGGCCGCCCTTCCGGGCCCTGGCGGGGTGCTGGACACTGGCCATTTTC
ACTAGAGTTTGCCTGGCAGGACCGATCTCTGCCCCCTCCTCTCCCCAGGCCTCTGGCTGCAGTGATGCCGAGA
ATCCTGAGCCAGGTGCCTCCTGAGCAGCCGTGCGCTCTCCACAGCGGCGTTTGCCACCAATGCGGCTCGCTT
CAGATGCTCTGATGCAGAGGGCACGCCCATAGTCCCTCTGCAGAGCCTCGCACTGGGGCCAGGGCAGGCACCAGC

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FIGURE 987B

CCCAGGCGGCCAGTCGGCCACGGCCTGTCCTCTTCCTCGTAGCGTCTGCTCCTCACTTTGTGTTGATGGTGA
AGGAGAATGTTCCGATTTTCCATGATCTAAGCAGGCCACGTTTAAAATAACATCAAGGCAAGCGTACGTGTCACC
CTCTGTACTGACATCTCCTCCCCTGAAATGCTTTTCAGTTTGACAGCCCGTTTCCTAGACAAGTGCACCTGGGGT
TTCAGGAACTTTGTGTTTTTTCGGAGGGGGTTGGTGGGGAGGTCGGGATGCCTGGGATCCCTTCCTGGAGAGGCA
GGCTGTCTCTGAAAAAGCCTCCATTGCCCACCCGCCAGGCGGAAAGTCACCCTGTTCCCAGCGCGGTTTCAGCA
TTTAATTTTAAGGGAGCTAAGGAAGCGCGGCGCGCCCCCTGGTGGTGGTAAGCCGCCAACGCACCTGGGGGCTGC
AACCCACCCGACGGGTGGTCCGGAGGGAGGCTGGAGCGGGGAGGCGAGGAGGGGGCTGTGAGTCCTCAGAGGCC
CTGGGCCACCACATTTCTGGCAGCGTTTCCCAGACACCCCTCTGCTAGGCCATCCCTGGATAGCAAGTGAATTAA
CTTAAGGGCACTGTGATGGGAAGCCTTGCCCCCTCTTTTTTTTTTTTTTTTAAATATCTGCGGAATAAACCCAA
TGGTTAATTTTTGAATGAATAAAAGGCTTTTGTGAATAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 988

MGKSNSKLPKVVEELTRKTYFTEKEVQQWYKGFIKDCPSGQLDAAGFQKIYKQFFPFGDPTKFATFVFNVDEN
KDGRIEFSEFIQALSVTSRGTLDKLRWAFKLYDLNDGYITRNEMLDIVDAIYQMGNTVELPEEENTPEKRVD
RIFAMMDKNADGKLTQEFQEGSKADPSIVQALSLYDGLV

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FIGURE 989

AGAGCTCGCGGTGGACTCCGACCCGGCGCAAC**ATG**CCGCGAGCCTCGCCTCTGCGCGACTGCCAGGCCTGGAAGG
ATGCGAGGCTCCCGCTCTCCACCACAAGCAACGAAGCCTGCAAGCTGTTGATGCCACGCTGACCCAGTATGTAA
AATGGACCAATGACAAGAGTCTCGGTGGCATCGAGGGCTGCCTGTCAAAGCTCAAAGCAGCAGATCCAACCTTTG
TGATGGGCCACGCCATGGCTACTGGCCTTGTGCTGATTGGCACTGGAAGCTCCGTGAAGCTGGACAAAGAGCTGG
ACCTGGCTGTGAAGACAATGGTGGAGATTTCAGAACCCAGCCGCTGACAAGGCGGGAGCAGCTGCACGTGTCTG
CAGTAGAGACATTTGCCAATGGGAACCTTCCGAAAGCCTGTGAACTATGGGAACAGATTCTCCAGGACCACCCGA
CAGACATGTTGGCCCTGAAATTTTCCCATGATGCTTATTTTTACCTGGGCTATCAGGAACAGATGAGAGATTCTG
TTGCTCGAATTTACCCCTTCTGGACACCTGACATCCCCCTAAGCAGCTATGTGAAAGGCATCTACTCTTTTGGCT
TGATGGAACCAACTTCTACGACCAGGCAGAAAACTCGCCAAAGAGGCTTTATCTATTAACCCGACAGACGCAT
GGTGGGTGCACACCGTCGCTCACATCCACGAGATGAAAGCAGAGATCAAGGATGGGTGGAATTCATGCAGCACT
CAGAGACCCCTCTGGAAGGACTCTGATATGTTGGCTTGTCACTAATATTGGCACTGGGCTTTATATCTGATTGAGA
AGGGCGAATATGAGGCCGCGCTGACCATCTACGATACCCACATCCTTCCAGCCTGCAGGCCAACGATGCAATGC
TGGACGTGGTGGACAGCTGCTCCATGCTCTACCGCCTGCAGATGGAAGGAGTGTCTGTGGGCCACGGTGGCAGGA
TGTCTGCTGTGGCCCGGAAGCACAGCCGAGACCACATCCTGCTGTTCAATGACGCACACTTCC**TGAT**GGCATC
CCTGGGTGCACACGACCCCCAGACCACACAGGAGCTGCTGACCACCCCTGCGGGACGCCAGCGAATCCCCAGGGGA
GAACTGCCAGCACCTCCTGGCCCGAGACGTGGGGCTGCCCCCTGTGCCAGGCCCTGGTGGAGGCTGAGGACGGGAA
CCCTGACCGCGTCTGGAGCTGCTCCTGCCCATCCGCTACCGGATCGTCCAGCTCGGTGGGAGCAATGCCAGAG
AGACGTCTTCAACCAGCTGCTGATTACGCGGCCTTAAACTGCACCTCCAGCGTCCATAAGAACGTAGCCCGGAG
CCTTCTGATGGAGCGTGATGCCTTGAAGCCCAACTCGCCCCCTGACCGAGCGGCTCATCCGCAAGGCAGCTACCGT
CCACCTCATGCAGTGAGCCAGCCTGGCCGCTCCACCCTGCAGAACCTCAGTGGTGGCGTCACTGCGTCCAGTCAG
CTGCTCCACCGGGTTAGGGTCAGGAGACGGCCAGAGCCTGTTTGTAGGGCTGTTAGAGGGTGATCTTCAGTTTT
ACAGGAAGTGGGTACGGGTAAATTTTAAATGTGATTCCGAATCTCCTTTCAGTCTCGAGAAGGGCCAATGAGC
ATTTTTCAGCAGTCACAGCCAGTGTGAGTGCTGCTCTTCCACCTGCCTTGCAAATTCTGTTTCCAGGGGAATG
TGTCTACTGCCTGGTGGTTCAAAGGTTGGAAGGCAGTGCAGAGGTGGGGGCTGATTCTGCTGGGACAGGTCTTCC
AGAGGCAGCCTCCCCCCTGCTGTCCCCGTCCCCACCAGGCTGCCCTTGGGATGGACCTTTTCATTCTTTCT
TTATATTCTAGACAGTCTCTGTTGTCTCATTGTGTTGCTGTCCCATTTTTTCAGGTGAGGGTACCGGGGTAGGGGA
GTGGCCTGCCAGGGTCACACTATGAGAGGCCCCCACCTGCTGCCTTTGGACGCAGCCCCCTGCTGCTGCATCCA
CCACCCCTTCTTACAGATCAGCGCGCACATGGGGTCTTCTGCTGTCTCTGGGGCGAGTCTGGAGCCCCCTGGGG
GGCTCTGTTGGTGTGATTGTTGACCCGTTTCTCTTTTTTAAACTGCACATCATAACAGGGCTTCATGTGAGCATG
ATTTTAATCATAAATGCACTTCTGAGGTGCAAGGATTGAGCTCAGAGCTGCTCTGTTGTGGCAAACCCAAAGTG
CTGTGATGTGTGGCTGTGACAAGCCTGGAGCGGGTCTGTGAGCGCCGCTCTGTCTCCTGCTTCTCACTGAAC
GCCTGCTGAATGTCCGCTGACTCAGCTGTGCTGCTTTCAGCCCTCCTGTGAGGGGCGGTCCAGTGACAGATG
TTTTTCAAGTTCCTCAGTTTGTACTGAAATTAGGGATTATCAGGGCAGGAAGCAGGCAGGCCTCTCAGAAGGGA
GAGGAGGCCTCCAAATCTATTGAGTCCCCACAGTTTGTCTAAGCCCAGGCAAATTTCTGTGATTAAATGAATTC
ATCAGTTCCTCCAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 990

MAASPLRDCQAWKDARLPLSTTSNEACKLFDATLTQYVKWTNDKSLGGIEGCLSKLKAADPTFVMGHAMATGLV
LIGTGSSVKLDKELDLAVKTMVEISRTQPLTRREQLHVSAVETFANGNFPKACELWEQILQDHPTDMLALKFSHD
AYFYLGYQE QMRDSVARIYFWTPDIPLSSYVKGIIYSFGLMETNFYDQAEKLAKEALSINPTDAWSVHTVAHIHE
MKAIEIKDGLEFMQHSETLWKDSMDLACHNYWHWALYLIIEKGEYEAALTIYDTHILPSLQANDAMLDVVDSCSMLY
RLQMEGVSVGHGGRMSCLWPGSTAETTSCCSMTHTS

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FIGURE 991

CGGACGCGTGGGCGAGGTGGCAATTGGGGAAGGGGTTCTGGGCTGCCGACGGCACACAGGCCAGAGCTTCGTGGA
TACCTGCAGGGCCCCAAAGGTCCCTCCCTGTTTTGAAGAGTGAGTGATGGCTATGAGGTAGCGGCCAGGCTGATCA
CCCCTGCGTTGGCTGGAGGCAGAATTCTGTAAATCCTCGCCAAGTCTTTCTCCAGGCCACTGGTTAGCTCATCTC
AGCCTCCTCTGGGAGCATCAACACCAACATGGCACAGGGGACTGCAGTGGTGTGCTTTGGACCTGTGTACCCACC
CAAGGCTAAAGGCAGAGCCAGATGGAGAAGGAAAGGCAAGTGACTTGTCCAGAGCCACTCTGTCAAAGGGGACT
TGAGTCCTCAGGGCTGTTGACTCCAAAGCTGACAAGCAGGAGCCAAAGTTACACCCTGTTTAAACCCTGCCTTCAAA
GGGACGACTCTGTAAGATTCTCTGCTACTTATTCAAGTTGACACGATGCCCTTCACACTCCACCTGAGGTCCCGC
CTTCCCTCTGCCATAAGGAGTTTGATTCTACAAAAGAAACCAAACATCAGAAATACATCCAGCATGGCTGGAGAG
CTCCGACCAGCCAGCCTGGTGGTCTGCCAGGTCCCTTGCTCCAGCTTTTGAAAGATTCTGCCAGGTCAACACT
GGTCTCTACCCCTGCTGGGCCAGAGTGAGCCAGAAAAGTGGATGCTGCCCCCTCAAGGTGCTATCTCAGAGACC
AGGATGGGCCATCCCCAGTTCTGGAAATACGAGTTCGGTGCCTGCACCGGTAGCCTGGCTTCGCTGGAGCAGTAC
TCGGAGCAGCTGAAGGACATGGTGGCCTTCTTCCTGGGCTGCAGCTTCTCCCTGGAGGAGGCCTTGAGAAAAGCG
GGGCTCCCCAGAAGAGACCCAGCAGGTACAGCCAGACAACAGTGCCTTGTTGTTACCCATGCTGGCTTCTGCTGC
CCTCTGGTGGTCACGATGAGGCCCATTTCCCAAGGACAAGCTGGAAGGGCTGGTGGGGCCTGCTGCTCCCTCGGA
GGTGAGCAGGGGCAACCTGTTACATGGGCGACCCAGAACTGTTGGGAATCAAAGAGCTTTCCAAACCTGCCTAC
GGGGATGCCATGGTGTGTCCCCCAGGGGAGGTTCCAGTGTTCTGGCCTTCTCCGCTGACCAGTCTCGGAGCTGTC
AGCAGCTGTGAGACCCCACTGGCTTTTGCCAGCATCCAGGCTGCACAGTTATGACTGACCTGAAGGATGCAAAG
GCTCCACCTGGTTGTCTCACCCAGAGAGAATTCCAGAGGTCCATCACATTTCCCAAGATCCTCTGCACTACAGC
ATCGCGTCAGTCTCTGCTTCTCAGAAGATCAGAGAACTAGAGTCTATGATCGGCATAGACCCAGGGAACCGGGGG
ATTGGGCACCTGCTCTGTAAAGATGAGCTGCTGAAGGCCTCTCTCTCGCTGTCCCATGCCCGCTCAGTGCTCATC
ACCACTGGGTTCCCCACACATTTCAATCATGAGCCTCCAGAAGAGACAGATGGCCCACCAGGAGCTGTTGCTCTG
GTTGCCTTCTGCAAGCCTTGAGAAAGGAGGTGCGCATAATCGTTGACCAGAGAGCCTGGAACCTTGACCAGAAG
ATTGTTGAAGATGCTGTTGAGCAAGGTGTTCTGAAGACGCAGATCCCGATATTAACCTACCAAGGTGGATCAGTG
GAAGCTGCTCAGGCATTCTGTGCAAAAATGGGGACCCGCAGACACCTAGATTTGACCACCTGGTGGCCATAGAG
CGTGCCGGAAGAGCTGCTGATGGCAATTACTACAATGCAAGGAAGATGAACATCAAGCACTTGGTTGACCCCAT
GACGATCTTTTTCTTGCTGCGAAGAAGATTCTGGAATCTCATCAACTGGAGTCGGTGATGGAGGCAACGAGCTT
GGGATGGGTAAAGTCAAGGAGGCTGTGAGGAGGCACATACGGCACGGGGATGTCATCGCTGCGACGTGGAGGCT
GACTTTGCCGTCATTGCTGGTGTCTTAACCTGGGGAGGCTATGCCCTGGCCTGCGCACTCTACATCCTGTACTCA
TGTGCTGTCCACAGTCAGTACCTGAGGAAAGCAGTCGGACCCCTCCAGGGCACCTGGAGATCAGGCCTGGACTCAG
GCCCTCCCGTCGGTCATTAAAGGAAGAAAAATGCTGGGCATCTTGGTGCAGCACAAAGTCCGGAGTGGCGTCTCG
GGCATCGTGGGCATGGAGGTGGATGGGCTGCCCTTCCACAACACCCACGCCGAGATGATCCAGAAGCTGGTGGAC
GTCACCACGGCACAGGTGTAAACCGTCCATGTTCCGTGTGAGCAGAGTCCCTACCAACGGGCAGGTCTGCATCCGG
GGAGAATGCAGCTGCTTCTGGCGACAATCCTGCTAGTAAACACTGGTCTTCGGTGAGCAACGAACACTCGCCTGG
CCTGGGAAACTGCATGCCCACTTTCTGGGAGGGGTTAGTGCAGGTGCCGTGGACAAAGGACAACATTTCTCTGGG
GCTTTTTAACTTTTATTCCTAAGACTCTAAAGGCGTTGATTTCAACCCCTCCTTCACTCTGGCTTCTTCAGGCAAC
CCACGTGGTCTCCTGTGAGAATCTTCTCGACAGTTACTTATGGGGACACTTGTGAACAATTAAGTCCAGGCAGA
GCATGAGAACAAACATTCCCAGGCCATGTAGGATAGGATACTCCAGACTCCAGTCATCTCCCCATCCATGGTT
TCTGTTACTCATGGTTTCAAGTTACTCATAGCCAACCTGCAGACCGAAAAATACTAAATGAAAAATTTAGAAATAAA
CAACTCTTAAGTTTTAAAAAAAAAAAAAAAAAAAA

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FIGURE 992

MPFTLHLRSRLPSAIRSLILQKKPNIRNTSSMAGELRPASLVVLPRLAPAFERFCQVNTGPLPLLQGSEPEKWM
LPPQGAISETRMGHPQFWKYEFGACTGSLASLEQYSEQLKDMVAFFLGCSFSLEEALAKAGLPRRDPAGHSQTTV
PCVTHAGFCCPLVVTMRPIPKDKLEGLVRACCSLGGEQGQPVHMGDPPELLGIKELSKPAYGDAMVCPPEVPVFW
PSPLTSLGAVSSCETPLAFASIPGCTVMTDLKDAKAPPGCLTPERIPEVHHISQDPLHYSIASVSASQKIRELES
MIGIDPGNRGIGHLLCKDELLKASLSLSHARSVLITTGFPTHFNHEPPEETDGPPGAVALVAFLQALEKEVAIIV
DQRAWNLHQKIVEDAVEQGVLTQIPILTYQGSVEAAQAFCKNGDPQTPRFDHLVAIERAGRAADGNYYNARK
MNIKHLVDPIDDLFLAAKKIPGISSTGVGDGGNELGMGKVKEAVRRHIRHGDVIACDVEADFAVIAGVSNWGGYA
LACALYILYSCAVHSQYLRKAVGPSRAPGDQAWTQALPSVIKEEKMLGILVQHKVRSVSGIVGMEVDGLPFHNT
HAEMIQKLVDVTTAQV

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FIGURE 993

GGGCAAACCTTTGAAAAATATTCTAAATGAAAATGACATAGTATTCATAGTGGAAAAAGTGCCTTTAGAAAAGG
AAGAAACAAGTCATATTGAAGAACTTCAATCTGAAGAACTGCCATATCTGATTTCTCTACTGGCGAAAATGTTG
GACCACTTGCTTTACCAGTTGGGAAGGCAAGGCAGTTAATTGGACTTTACACC**ATG**GCTCACAATCCTAATATGA
CCCATTTGAAGATTAATCTGCCTGTTACTGCCCTTCCCCCCTTTGGGTAAGATGTGACAGTTCAGATCCTGAAG
GTACTTGTTGGCTAGGAGCTGAGCTTATCACAACAAACAACAGCATTACAGGAATTGTCTTATATGTGGTCAGTT
GTAAAGCTGATAAAAAATTATTCTGTAAATCTTGAAACCTAAAAAATTTACACAAGAAAAGACATCACTTGTCTA
CTGTAACATCCAAAGGCTTTGCCCAGTATGAGCTCTTTAAGTCCTCTGCCTTGGATGATACAATCACAGCATCAC
AAACTGCGATCGCTTTGGATATTTCTGGAGTCCTGTGGATGAGATTCTTCAAATCCCTCCACTCTCTTCAACTG
CAATC**TGA**ATATTAAAGTGGAATCAGGAGAGCCCAGAGGTCTTTGAATCATCTCTACAGAGAAGTGAATTTCT
TCTTGTTTTGGCTGATGGTTTGAGGACTGGTGTCACTGAATGGCTCGAGCCCCTGGAAGCAAAATCTGCTGTTGA
ACTTGTTTCAAGGAATTTCTGAATGACTTAAATAAGCTGGATGGATTTGGTGATTCTACAAAAAAGACACTGAGGT
TGAGACCTTGAAGCATGACACTGCTGCAGTCGATCGTTCCGTCAAGCGTCTTTTCAAAGTTCGGAGTGATCTTGA
TTTTGCTGAGCAACTGTGGTGCAAAATGAGCAGTAGTGTGATTTTCATACCAAGACTAGGTGAAGTGTTCACATT
GATCATCCAGAGTCTACAACGTGGTGATATACAGCCATGGCTCCATAGTGGAAAGTAACAGTTTACTAAGTAAGCT
CATTTCATCAGTCTTATCATGGAACCATGGACACAGTTTCTCTCAGTGGGACTATTCCAGTTCAAATGCTTTTGG
AATTGGTTTGGACAACTAAAGAAAGATTATATCAGTTTTTTTCATAGGTCAGGAACTTGCATCTTTGAATCATTT
GGAATACTTCATTGCTCCATCAGTAGATATACAAGAACAGGTTTATCGTGTCCAAAAACTCCACCATATTCTAGA
AATATTAGTCAGTTGCATGCCTTTTATTAAATCTCAACATGAACCTCTCTTTCTTTAACACAGATCTGCATAAA
GTATTACAAACAAAATCCTCTTGATGAGCAACACATTTTTTCAGCTGCCAGTCAGACCAACTGCTGTAAAGAACTT
ATATCAAAGTGAGAAGCCACAGAAATGGAGAGTGGAATATATAGTGGTCAAAAGAAGATTAAGACAGTTTGGCA
ACTGAGTGACAGCTCACCATAGGCCATCTGAATTTTTACAAACCTGATTTTTCGGAATTAACACTAAGCGGTAG
CCTGGAAGAAAGGATATTCTTTACTAACATGGTTACCTGCAGCCAGGTGCATTTCAGTGAAGTGTGCTGATGAA
GTCCTCTATAAGCACAAAGCC

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FIGURE 994

MAHNPNMTHLKINLPVTALPPLWVRCDSSDPEGTCWLGAELITNNSITGIVLYVVSCKADKNYSVNLENLKNLH
KKRHHLSTVTSKGFAQYELFKSSALDDTITASQTAIALDISWSPVDEILQIPPLSSTAI

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FIGURE 995

GTTCGGAGCGGGCGAGCGGAGTTAGCAGGGCTTTACTGCAGAGCGCGCGGGCACTCCAGCGACCGTGGGGATCA
GCGTAGGTGAGCTGTGGCCTTTTTCGAGGTGCTGCAGCCATAGCTACGTGCGTTCGCTACGAGGATTGAGCGTCT
CCACCCAGTAAGTGGGCAAGAGGCGGCAGGAAGTGGGTACGCAGGGGCGCAAGGCGCACAGCCTCTAGACGACTC
GCTTTCCCTCCGGCCAACCTCTGAAGCCGCGTCCTACTTTGACAGCTGCAGGGCCGCGGCCTGGTCTTCTGTGCT
TCACCATCTACATAAATGAATCCCAGTATGAAGCAGAAACAAGAAGAAATCAAAGAGAATATAAAGAATAGTTCTG
TCCCAAGAAGAACTCTGAAGATGATTACGCCCTTCTGCATCTGGATCTCTTGTTGGAAGAGAAAATGAGCTGTCCG
CAGGCTTGTCAAAAGGAAACATCGGAATGACCACTTAACATCTACAACCTCCAGCCCTGGGGTTATTGTCCAG
AATCTAGTGAATAAAAAATCTTGAGGAGTCAACCAGGAGTCATTTGATCTTATGATTAAAGAAAATCCATCCT
CTCAGTATTGGAAGGAAGTGGCAGAAAAACGGAGAAAGGCGCTGTATGAAGCACTTAAGGAAAATGAGAACTTC
ATAAAGAAATTGAACAAAAGGACAATGAAATTGCCCGCCTGAAAAAGGAGAATAAAGAACTGGCAGAAGTAGCAG
AACATGTACAGTATATGGCAGAGCTAATAGAGAGACTGAATGGTGAACCTCTGGATAATTTTGAATCACTGGATA
ATCAGGAATTTGATTCTGAAGAAGAACTGTTGAGGATTCTCTAGTGGAAGACTCAGAAATTGGCACGTGTGCTG
AAGGAAGTGTATCTTCTCTACGGATGCAAAGCCATGTATATGAATGCATTAATATTTGACTGTTGAGAATTTT
ACTGCCGAAGTTTACCTCCACTAGTTCTTTGTAGCAGAGTACATAACTACATAATGCCAACTCTGGAATCAAATT
TCCTTGTTTGAATCCTGGGACCCTATTGCATTAAAGTACAAATACTATGTATTTTAACTATGATGGTTTATGT
GAATAGGATTTTCTCAGTTGTCAGCCATGACTTATGTTTATTACTAAATAAACTTCAAACCTCCTGTGGAAAAAAA
AAAAAAAAAAAAAAAAAAAAA

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FIGURE 996

MNPSMKQKQEEIKENIKNSSVPRRTLKMIQPSASGSLVGRENELSAGLSKRKHRNDHLTSTTSSPGVIVPESSEN
KNLGGVTQESFDLMIKENPSSQYWKEVAEKRRKALYEALKENEKLHKEIEQKDNEIARLKKENKELAEVAEHVQY
MAELIERLNGEPLDNFESLDNQEFDSEEETVEDSLVEDSEIGTCAEGTVSSSTDAPCI

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FIGURE 997

ACGAGGGGAGCTCCGGCTGCGTCTTCCCGCAGCGCTACCCGCC**ATG**CGCCTGCCGCGCCGGGCCGCGCTGGGGCT
 CCTGCCGCTTCTGCTGCTGCTGCCGCCCCGCGCCGGAGGCCGCCAAGAAGCCGACGCCCTGCCACCGGTGCCGGGG
 GCTGGTGGACAAGTTTAACCAGGGGATGGTGGACACCGCAAAGAAGAACTTTGGCGGCGGGAACACGGCTTGGGA
 GGAAAAGACGCTGTCCAAGTACGAGTCCAGCGAGATTTCGCTGCTGGAGATCCTGGAGGGGCTGTGCGAGAGCAG
 CGACTTCGAATGCAATCAGATGCTAGAGGCGCAGGAGGAGCACCTGGAGGCCTGGTGGCTGCAGCTGAAGAGCGA
 ATATCCTGACTTATTCGAGTGGTTTTGTGTGAAGACACTGAAAGTGTGCTGCTCTCCAGGAACCTACGGTCCCGA
 CTGTCTCGCATGCCAGGGCGGATCCCAGAGGCCCTGCAGCGGGAATGGCCACTGCAGCGGAGATGGGAGCAGACA
 GGGCGACGGGTCTGCCGGTGCCACATGGGGTACCAGGGCCCGCTGTGCACTGACTGCATGGACGGCTACTTCAG
 CTCGCTCCGGAACGAGACCCACAGCATCTGCACAGCCTGTGACGAGTCCTGCAAGACGTGCTCGGGCCTGACCAA
 CAGAGACTGCGGCGAGTGTGAAGTGGGCTGGGTGCTGGACGAGGGCGCCTGTGTGGATGTGGACGAGTGTGCGGC
 CGAGCCGCCTCCCTGCAGCGCTGCGCAGTTCTGTAAAGAACGCCAACGGCTCCTACACGTGCGAAGATGTGGACGA
 GTGCTCACTAGCAGAAAAAACCTGTGTGAGGAAAAACGAAACTGCTACAATACTCCAGGGAGCTACGTCTGTGT
 GTGTCTGACGGCTTCGAAGAAACGGAAGATGCCTGTGTGCCGCCGGCAGAGGCTGAAGCCACAGAAGGAGAAAG
 CCCGACACAGCTGCCCTCCCGCAAGACCTG**TAA**TGTGCCGGACTTACCCTTTAAATTATTCAGAAGGATGTCCC
 GTGGAAAATGTGGCCCTGAGGATGCCGTCTCCTGCAGTGGACAGCGGCGGGGAGAGGCTGCCTGCTCTTAACGG
 TTGATTCTCATTGTGCCCTTAAACAGCTGCATTTCTTGGTTGTTCTTAAACAGACTTGATATTTTGATACAGTT
 CTTTGTAAATAAAATTGACCATTGTAGGTAATCAGGAAAAAAAAAAAAAAAAAAAAA

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FIGURE 998

MRLPRRAALGLLPLLLLLPPAPEAAKKPTPCHRCRGLVDKFNQGMVDTAKKNFGGGNTAWEEKTLSKYESSEIRL
LEILEGLCESSDFECNQMLEAQEEHLEAWWLQLKSEYPDLFEWFCVKTLLKVVCCSPGTYGPDCLACQGGSQRPCSG
NGHCSGDGSRQGDGSCRCHMGYQGPLCTDCMDGYFSSLRNETHSICTACDESKTCSGLTNRDCGECEVGWVLDE
GACVDVDECAAEPFPCSAAQFCKNANGSYTCEDVDECSLAEKTCVRKNENCYNTPGSYVCVCPDGFETEDACVP
PAEAEATEGESPTQLPSREDL

[illegible]

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FIGURE 1000

MPLDPYHSVTWGHQAQGSHHFVFGELRVRPILES LRDEPD DPRPSREGPAGRVGALARDGPEPCDAASPPGGASC
APELARPREDKSAQQAKLEGGTRLCCRCPEESRLVPGGAVSPGDHVLEVSGTRGTCGCRPRRHAGPELAHS

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FIGURE 1001

CGCTGTTGTTAGTCACCGCGGAGCCGCCGAAACCTGCAGGAGTCTACTATGCAACTGCATACTGG**ATG**CCTGCTG
AAAAGACAGTACAAGTCAAAAATGTAATGGACAAGAATGGGGACGCCTATGGCTTTTACAATAACTCTGTGAAAA
CCACAGGCTGGGGCATCCTGGAGATCAGAGCTGGCTATGGCTCTCAAACCTGAGCAATGAGATCATCATGTTTG
TGGCTGGCTTTTGGAGGGTTACCTCACTGCCCCACACATGAATGACCACTACACAAACCTCTACCCACAGCTGA
TCACGAAACCTTCCATCATGGATAAAGTGCAGGATTTTATGGAGAAGCAAGATAAGTGGACCCGGAAAAATATCA
AAGAATACAAGACTGATTCATTTTGGAGACATACAGGCTATGTGATGGCACAAATAGATGGCCTCTATGTAGGAG
CAAAGAAGAGGGCTATATTAGAAGGGACAAAGCCAATGACCCCTGTTCCAGATTCAAGTTCCTGAATAGTGTGGAG
ATCTATTGGATCTGATTCCTCACTCTCTCCACAAAAACGGCAGCCTAAAGGTTTTTAAGAGATGGGACATGG
GACATTGCTCCGCTCTTATCAAGGTTCTTCTGGATTTGAGAACGTCCTTTTTGCTCACTCAAGCTGGTACACGT
ATGCAGCCATGCTCAGGATATATAAACACTGGGACTTCAACATCATAGATAAAGATACCAGCAGTAGTCGCCTCT
CTTTTCAGCAGTTACCCAGGGTTTTTGGAGTCTCTGGATGATTTTACATTCTTAGCAGTGGATTGATATTGCTGC
AGACCACAAACAGTGTGTTAATAAAACCTGCTAAAGCAGGTAATACCCGAGACTCTCCTGTCTGGCAAAGAG
TCCGTGTGGCCAATATGATGGCAGATAGTGGCAAGAGGTGGGCAGACATCTTTTCAAATACAACCTCTGGCACCT
ATAACAATCAATACATGGTTCTGGACCTGAAGAAAGTAAAGCTGAACCACAGTCTTGACAAAGGCACTCTGTACA
TTGTGGAGCAAATTCCTACATATGTAGAATATTCTGAACAACTGATGTTCTACGGAAAGGATATTGGCCCTCCT
ACAATGTTCCCTTCCATGAAAAAATCTACAACCTGGAGTGGCTATCCACTGTTAGTTCAGAAGCTGGGCTTGGACT
ACTCTTATGATTTAGCTCCACGAGCCAAAATTTCCGGCGTGACCAAGGGAAGTGACTGATACGGCATCCATGA
AATATATCATGCGATACAACAATTATAAGAAGGATCCTTACAGTAGAGGTGACCCCTGTAATACCATCTGCTGCC
GTGAGGACCTGAACTCACCTAACCCAAGTCCTGGAGGTTGTTATGACACAAAGGTGGCAGATATCTACCTAGCAT
CTCAGTACACATCCTATGCCATAAGTGGTCCCACAGTACAAGGTGGCCTCCCTGTTTTTCGCTGGGACCGTTTCA
ACAAAACCTCTACATCAGGGCATGCCAGAGGTCTACAACCTTTGATTTTATTACCATGAAACCAATTTTGAACTTG
ATATAAAAT**TGA**AGGAGGGAGATGACGGACTAGAAGACTGTAAATAAGATACCAAAGGCACTATTTTAGCTATGTT
TTTCCCATCAGAATTATGCAATAAAATATATTAATTTGTCAAAAAAAAAAAAAAAAAAAAA

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FIGURE 1002

MPAEKTVQVKNVMDKNGDAYGFYNNVKTGTGWGILEIRAGYGSQTLSNEIIMFVAGFLEGYLTAPHMNDHYTNLY
PQLITKPSIMDKVQDFMEKQDKWTRKNIKEYKTDSFWRHTGYVMAQIDGLYVGAKKRAILEGTKPMTLFQIQFLN
SVGDLLDLIPSLSPKNGSLKVFKRWDMGHCSALIKVLPGFENVLFAHSSWYTYAAMLRIYKHWDNIIDKDTSS
SRLSFSSYPGFLESDDFYILSSGLILLQTTNSVFNKTLKQVIPETLLSWQVRVANMMADSGKRWADIFSKYN
SGTYNNQYMVLDLKKVKNHSLDKGTLYIVEQIPTTYVEYSEQTDVLRKGYWPSYNVPFHEKIYNWSGYPLLQKL
GLDYSYDLAPRAKIFRRDQGVTDTASMKYIMRYNNYKKDPYSRGDPCNTICREDLNSPNPSPGGCYDTKVADI
YLASQYTSYAISGPTVQGLPVFRWDRFNKTLHQGMPEVYNFDFITMKPILKLDIK

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FIGURE 1003

CGGAAGCAGGAAGTGAGTTTGCGAACGGAGCAGCTGCTGCAGGGGCC**ATG**GCGGACACCCAGTACATCCTGCCCA
ATGACATCGGCGTGTCTAGCCTGGACTGCCGTGAGGCCTTCCGCCTGCTGTCACCCACAGAGCGCCTCTATGCCT
ACCACCTGTCCCGTGCCGCCTGGTACGGAGGCCTGGCTGTGCTGCTTCAGACCTCCCTGAGGCCCCCTACATCT
ATGCTCTGCTCAGCCGCCTCTTCCGCGCCAGGACCCCGACCAGCTGCGCCAACATGCCCTGGCTGAAGGCCTTA
CCGAGGAGGAGTATCAGGCGTTCTTGGTCTATGCCGCGGGTGTTTACTCCAACATGGGCAACTACAAGTCCTTTG
GTGACACCAAGTTTGTTCCTCAACTTGCCCAAGGAAAAGCTGGAACGGGTGATCCTAGGGAGTGAGGCTGCTCAGC
AGCACCAGAAGAAGTCAGGGGCCTCTGGCAGACCTGCGGGGAGCTTATGTTCTCTCTGGAGCCAAGGCTTCGAC
ACCTCGGACTGGGGAAGGAGGGAATCACCACCTATTTCTCTGGGAATTGTACCATGGAAGATGCCAAATTGGCCC
AGGACTTTCTGGACTCACAGAACCTCAGTGCCTACAACACCCGGCTCTTCAAAGAGGTCGATGGAGAAGGGAAGC
CCTACTACGAGGTGCGGCTGGCTTCTGTGCTTGGCTCAGAGCCTTCCCTGGACTCTGAGGTGACTTCCAAGCTGA
AGAGCTATGAATTCGGGGAAGCCCTTTCCAGGTGACCCGGGGGACTACGCGCCCATCTCCAGAAGGTGGTG
AGCAGCTGGAGAAAGCCAAGGCCTATGCAGCCAACAGCCACCAGGGGCAGATGCTGGCCCAGTATATAGAGAGCT
TCACCCAGGGCTCCATCGAGGGCCACAAGAGGGGCTCCCGCTTCTGGATCCAGGACAAAGGCCCCATCGTGGAGA
GTTACATCGGGTTTCATCGAGAGCTACCGCGACCCCTTTGGTTCCCGAGGAGAATTTGAAGGTTTCGTAGCTGTGG
TGAACAAGGCCATGAGTGCCAAGTTTGAGCGGCTGGTGCGAGCGCAGAGCAGCTGCTGAAGGAGCTGCCCTGGC
CCCCAACCTTTGAGAAGGACAAGTTCTCACCCTGACTTCACCTCCCTGGATGTTCTCACCTTCGCTGGCTCCG
GCATCCCTGCCGCATCAACATCCCCAACTACGATGATCTGAGGCAGACGGAAGGCTTTAAGAACGTGTGCTGG
GGAATGTGCTGGCTGTGGCCTACGCCACGCAGCGGGAGAAGCTTACCTTTCTGGAGGAGGATGACAAGGACCTGT
ACATCCTCTGGAAGGGGCCCTCCTTCGATGTGCAGGTGGGCCTGCACGAGCTGCTGGGCCATGGCAGTGGCAAGC
TCTTCGTACAGGACGAAAAGGAGCATTCAACTTTGACCAGGAAACAGTGATCAACCCAGAGACGGGCGAGCAGA
TTCAGAGCTGGTATCGGAGCGGGGAGACCTGGGATAGCAAGTTCAGCACCATCGCCTCCAGCTACGAAGAGTGCC
GGGCTGAGAGCGTGGGTCTCTACCTCTGTCTCCACCCGCAAGTGCTGGAGATCTTTGGCTTTGAGGGGGCTGATG
CGGAGGACGTGATCTACGTGAAGTGGCTCAACATGGTTTCGGGCCGGGCTGCTCGCTCTGGAGTTCTACACACCTG
AGGCCTTCAACTGGCGACAGGCCCATATGCAGGCCCCGTTTGTGATCCTGAGAGTCTTGCTGGAGGCTGGCGAGG
GACTCGTTACCATCACTCCACACAGGCTCCGATGGGCGCCAGATGCCCGGTCCGCCTCGACCGCAGCAAGA
TCCGGTCTGTGGGCAAGCCTGCTCTAGAGCGCTTCTGCGGAGACTTCAGGTGCTGAAGTCCACAGGGGATGTGG
CCGGAGGGCGGGCCCTGTACGAGGGGTATGCAACGGTCACTGATGCGCCCCCGAGTGCTTCTCACCTCAGGG
ACACGGTGCTGCTGCGTAAGGAATCTCGGAAGCTCATTGTTACGCCAACACTCGCCTTGAAGGCTCAGACGTGC
AGCTTCTGGAATACGAGGCGTCAGCTGCTGGCCTCATCCGATCCTTCTCTGAGCGTTTCCAGAGGATGGACCCG
AGTTGGAGGAGATCCTCACACAGCTGGCCACAGCCGATGCCCGATTCTGGAAGGGCCCCAGTGAGGCCCCATCTG
GCCAAGCT**TG**AGGAAGATGTGTGGCCTTGCCCCAATTCCATCAGACCAAGGCTGCAAGTGGCCCTCCATTTCGTG
TGTGATTTAGGGGCTGGGGAGGGGGAGGGGCAGGAGCTTGGACCTGGTACTACCTCAGCTGAGGGTGGTGACA
CAACCCCTTCCATTTGTCAGCACTTTCCAGCCTGCCAATTGCTTCCCTCTGTGATCTCATTTCATCTGCACTGC
CATACGTGGAGTGAGCAAGACAGGGCTTACCATCCTGTCTACCAGATGAGGAAATGGCAGTTCTGAGAAGTCACT
GGTCTAGATCCCGCAGGTGGCACGTGACAGCTAGGGTTCAAAACGTTCTCACCAAATCCAATGCTCCTCACATAT
TAATTTTATAACCAGACAAATAAATATTAGAGACAACCAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 1004

MADTQYILPNDIGVSSLDCEAFRLSPTERLYAYHLSRAAWYGGGLAVLLQTSPEAPYIYALLSRLFRAQDPDQL
RQHALAEGLTEEEYQAFLVYAAGVYSNMGNYKSFGDTKFVPNLPKEKLERVILGSEAAQQHPPEVRGLWQTCGEL
MFSLEPRLRHLGLGKEGITYFSGNCTMEDAKLAQDFLDSQNL SAYNTRLFKEVDGEGKPYEVR LASVLGSEPS
LDSEVTSKLKSYEFRGSPFQVTRGDYAPILQKVVEQLEKAKAYAANSHQGQMLAQYIESFTQGSIEAHKRGRSFW
IQDKGPIVESYIGFIESYRDPFGSRGEFEGFVAVVNKAMSAKFERLVASAEQLLKELPWPPTFEKDKFLTPDFTS
LDVLT FAGSGIPAGINIPNYDDL RQTEGFKNVSLGNVLAVAYATQREKLT FLEEDDKDLYILWKGPSFDVQVGLH
ELLGHGSGKLFVQDEKGAFNFDQETVINPETGEQIQSWYRSGETWDSKFSTIASSYEECRAESVGLYLCLHPQVL
EIFGFEGADAEDVIYVNWLN MVRAGLLALEFYTP EAFNWRQA HMQARFVILRVLLEAGEGLVTITPTTGSDGRPD
ARVRLDRSKIRSVGKPALERFLRRLQVLKSTGDVAGGRALYEGYATVTDAPPECFLT LRDTVLLRKESRKLIVQP
NTRLEGS DVQLLEYEASAAGLIRSF SERFPEDGPELEEILTQLATADARFWKGPSEAPSGQA

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FIGURE 1005A

CGATAACGATTTGTGTTGTGAGAGGCGCAAGCTGCGATTTCTGCTGAACTTGGAGGCATTTCTACGACTTTTCTC
TCAGCTGAGGCTTTTCTCCGACCCTGATGCTCTTCAATTCGGTGCTCCGCCAGCCCCAGCTTGGCGTCTTGAGA
AATGGATGGTCTTCAACAATACCCTCTTCAATCCCTTCTGACTGGTTATCAGTGCAGTGGTAATGATGAACACACT
TCTTATGGAGAAACAGGAGTCCCAGTTCCTCCTTTTGGATGTACCTTCTCTTCTGCTCCCAATATGGAACATGTA
CTAGCAGTTGCCAATGAAGAAGGCTTTGTTTCGATTGTATAACACAGAATCACAAAGTTTCAGAAAGAAGTGCTTC
AAAGAATGGATGGCTCACTGGAATGCCGTCTTTGACCTGGCCTGGGTTCCTGGTGAACTTAACTTGTACAGCA
GCAGGTGATCAAACAGCCAAATTTTGGGACGTAAAAGCTGGTGAGCTGATTGGAACATGCAAAGGTCATCAATGC
AGCCTCAAGTCAGTTGCCTTTTCTAAGTTTGAGAAAGCTGTATTCTGTACGGGTGGAAGAGATGGCAACATTATG
GTCTGGGATACCAGGTGCAACAAAAAGATGGGTTTTATAGGCAAGTGAATCAAATCAGTGGAGCTCACAATACC
TCAGACAAGCAAACCCCTTCAAACCCCAAGAAGAAACAGAATTCAAAGGACTTGCTCCTTCTGTGGATTTCCAG
CAAAGTGTTACTGTGGTCTCTTTCAAGACGAGAATACCTTAGTCTCAGCAGGAGCTGTGGATGGGATAATCAAA
GTATGGGATTTACGTAAGAATTATACTGCTTATCGACAAGAACCCATAGCATCCAAGTCTTTCTGTACCCAGGT
AGCAGCACTCGAAAACCTTGATATTCAAGTCTGATTTTGGATTCCACTGGCTCTACTTTATTTGCTAATTGCACA
GACGATAACATCTACATGTTTAATATGACTGGGTTGAAGACTTCTCCAGTGGCTATTTTCAATGGACACCAGAAC
TCTACCTTTTATGTAAATCCAGCCTTAGTCCAGATGACCAGTTTTTATGTCAGTGGCTCAAGTGATGAAGCTGCC
TACATATGGAAGGTCTCCACACCCTGGCAACCTCCTACTGTGCTCCTGGGTCACTTCTCAAGAGGTACAGTCTGTG
TGCTGGTGTCCATCTGACTTCACAAAGATTGCTACCTGTTCTGATGACAATACACTAAAAATCTGGCGCTTGAAT
AGAGGCTTAGAGGAGAAACCAGGAGGTGATAAACTTCCACGGTGGGTGGGCCTCTCAGAAGAAAAAAGAGTCA
AGACCTGGCCTAGTAACAGTAACGAGTAGCCAGAGTACTCCTGCCAAAGCCCCAGGGTAAAGTGCAATCCATCC
AATTCTTCCCCGTATCCGCAGCTTGTGCCCCAAGCTGTGCTGGAGACCTCCCTCTTCTTCAAATACTCCTACG
TTCTCTATTAACCTCTCCTGCCAAGGCCCGGTCTCCCATCAACAGAAGAGGCTCTGTCTCCTCCGTCTCTCCC
AAGCCACCTTCATCTTTCAAGATGTCGATTAGAACTGGGTGACCCGAACACCTTCTCATCACCACCCATCACT
CCACCTGCTTCGGAGACCAAGATCATGTCTCCGAGAAAAGCCCTTATTCTGTGAGCCAGAAGTCATCCCAAGCA
GAGGCTTGCTCTGAGTCTAGAAATAGAGTAAAGAGGAGGCTAGACTCAAGCTGTCTGGAGAGTGTGAAACAAAAG
TGTGTGAAGAGTTGTAAGTGTGTGACTGAGCTTGATGGCCAAGTTGAAAATCTTCATTTGGATCTGTGCTGCCTT
GCTGGTAACCAGGAAGACCTTAGTAAGGACTCTCTAGGTCTTACCAAATCAAGCAAAATTGAAGGAGCTGGTACC
AGTATCTCAGAGCCTCCGTCTCCTATCAGTCCGTATGCTTCAGAAAGCTGTGGAACGCTACCTCTTCTTTGAGA
CCTTGTGGAGAAGGGTCTGAAATGGTAGGCAAAGAGAATAGTTCCCCAGAGAATAAAAACTGGTTGTTGGCCATG
GCAGCCAAACGGAAGGCTGAGAATCCATCTCCACGAAGTCCGTATCCAGACACCCAATTCCAGGAGACAGAGC
GGAAAGACATTGCCAAGCCCGGTACCATCACGCCCAGCTCCATGAGGAAAATCTGCACATACTTCCATAGAAAAG
TCCCAGGAGGACTTCTGTGGTCTGAACTCAACAGAATTATAGATTCTAATCTGAGTGAGTTACTGAGCTTTG
GTCCACTAAAACAAGCTGAGCTTTGGTCCACTAAAACAAGATGAAAAATACAAGAGTGACTCTATAACTCTGGTC
TTAAGAAAGCTGCCTTTTCAATTTTATAGACAAAATCTTTTCAACGCTGAAATGTACCTAATCTGGTTCTACTACC
ATAATGTATATGCAGCTTCCCGAGGATGAATGCTGTGTTAAATTTTATAAAGTAAATTTGTCACTCTAGCATTT
TGAATGAATAGTCTTCACTTTTTAAATTATTCTCTCTATAAATGACATCCAGTTTATGGAGGCAAAAA
ACAAGTTTCTTGTTATCCTGAACTTTCTATGCTCAGTGGAAGTATCTGCCAGCCACAGCATGAGGCCTGTGAA
GGCTGACTGAGAAATCCTCTGCTGAAGACCCCTGGTTCTGTTCTGCCTCCAACATGTATAATTTTATTTGAAATA
CATAATCTTTTCACTATGCTTTTGTGGGGTTTTTTTAAAGTATGTGTAAAAATGTGATGCTCAGATAAGTACATT
TATATCAGTTCAGTGTTAAATGCAGTCTCTTGAGTTAAAGTCATCTTTATTTTAAATGCAGTGATAAATGTCAA
CTCTTCGGAGAACTAGGAGAACAAACAGAAAGCTGTGTTTGTCTTTTTTCTCTCAAATATATCTCCCGTATG
AGATTTTCAGTCCCATGTTTTTACCAAGCAATCTGCTATGTCAGCCAACCCAACATCACTTTCTACAGGAGGTT
ATGATTTTTGCCATTTACTAGAGGAAGATGTTTTATGAAATCAATTTGGGGTTTGAATTCAGGTGCAGTCATCAG
TTCTTTAGGGGCTGCAATGTTTTAAAAAAAATAAGTCATCAGATTTTAAAGAAAAAGTGATGATTTCTTATTGAT
ATTTTTGTAAACAGAATATAGCTCTTAACTGAAAATCCAGAACCAAGATAAATCTTGAGTTTCTTTTTCATGTA
CATAAAAAAGCAATAGCCTTTTAGTATAGATAGCCCTGAGCCAAAAAGTAATAGAATTTTCTCTAGATATTTAATA
CAGAGAGTGTATAGACTGACTCTAAGTTAATAATGTGCAAAATATCTTAAACATCCCTCCCTTATTCAACAATT
ATGTATCAGTGATCTTGAACCATTTGTTTTATATTTTTTACCTTTGTAACCTCATGGAAAGAGGCTTTACATACTT
TCTATGTACTATTTACTTAGAAGGGAGCCCCCTTCCAGTCATGAACTTCATTTGTTTTATCCATATCCCTGAGG

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FIGURE 1005B

ACTGTGTAGACTTTATGTCAGTTCTGTGTAGACTTTATGTCAGTTTTTGTTCATTATTTGAAAAATCTATTCTGACA
ACTTTTTTAATTCCTTTGATCTTATAAGTTAAAGCTGTAACAAGCTGAAATTGCATGGATCAAGTAAGCATAGTTTT
ATCCAGGGAGAAAAATAAAAGGAAGCCATAGAATTGCTCTGGTCAAACCAAGCACACCATAGCCTTAAGTGAAT
ATTTAGGAAATCTGCCTAATCTGCTTATATTTGGTGTTTGTGTTTTTGTGACTGTTGGGCTTTGGGAAGATGTTATTT
ATGACCAATATCTGCCAGTAACGCTGTTTATCTCACTTGCTTTGAAAGCCAATGGGGGAAAAAATCCATGAAAA
AAAAAAGATTGATAAAGTAGATGATTTTGTGTTGTATCCCTACCCATCTCCTGGCAGCCCTACTGAGTGAAATTGG
GATACATTTGGCTGTCAGAAATTATACCGAGTCTACTGGGTATAACATGTCTCACTTGGAAGCTAGTACTTTTA
AATGGGTGCCAAAGGTCAACTGTAATGAGATAATTATCCCTGCCTGTGTCCATGTCAGACTTTGAGCTGATCCTG
AATAATAAAGCCTTTTACCTT

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FIGURE 1006

MLFNSVLRQPQLGVLRNGWSSQYPLQSLLTGYQCSGNDEHTSYGETGVPVPPFGCTFSSAPNMEHVLAVANEEGF
VRLYNTEQSFRKKCFKEWMAHWNVFDLAWVPGELKLVTAAAGDQTAKFWDVKAGELIGTCKGHQCSLKSVAFSK
FEKAVFCTGGRDGNIMVWDTRCNKKDGFYRQVNQISGAHNTSDKQTPSKPKKKQNSKGLAPSVDFQQSVTVVLFQ
DENTLVSAGAVDGI IKVWDLRKNYTAYRQEP IASKSFLYPGSSSTRKLGYSLLILDSTGSTLFANCTDDNIYMFNM
TGLKTSPVAIFNGHQNSTFYVKSSLSRDDQFLVSGSSDEAAYIWKVSTPWQPPTVLLGHSQEVT SVCWCPSDFTK
IATCSDDNTLKIWRLNRGLEEKPGDKLSTVGWASQKKKESRPGLVTVTSSQSTPAKAPRVKCNPSNSSPSSAAC
APSCAGDLPLPSNTPTF SIKTSPAKARSP INRRGSVSSVSPKPPSSFKMSIRNWVTRTPSSSPPI TPPASETKIM
SPRKALIPVSQKSSQAEACSESRNRVKRRDLSSCLESVKQKCVKSCNCVTELDGQVENLHLDLCLAGNQEDLSK
DSLGP TKSSKIEGAGTSISEPPSPISPYASESCGTLPLPLRPCGEGSEMVGKENS SPENKNWLLAMAAKRKAENP
SPRSPSSQTPNSRRQSGKTLPSPTITPSSMRKICTYFHRKSQEDFCGPEHSTEL

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FIGURE 1007

GCACGAGGGAAGAGGGTGATCCGACCCGGGGAAGGTCGCTGGGCAGGGCGAGTTGGGAAAGCGGCAGCCCCGCC
GCCCCCGCAGCCCCCTTCTCCTCCTTTCTCCACGTCTATCTGCCTCTCGCTGGAGGCCAGGCCGTGCAGCATCG
AAGACAGGAGGAAGTGGAGCCTCATTGGCCGGCCCGGGCGCCGCCCTCGGGCTTAAATAGGAGCTCCGGGCTCT
GGCTGGGACCCGACCGCTGCCGGCCGCGCTCCCGCTGCTCCTGCCGGGTGATGGAAAACCCAGCCCGGCCGCG
CCCTGGGCAAGGCCCTCTGCGCTCTCCTCCTGGCCACTCTCGGCGCCGCCGCCAGCCTCTTGGGGGAGAGTCCA
TCTGTTCCGCCAGAGCCCCGGCCAAATACAGCATCACCTTCACGGGCAAGTGGAGCCAGACGGCCTTCCCCAAGC
AGTACCCCCCTGTTCCGCCCCCTGCGCAGTGGTCTTTCGCTGCTGGGGGCCGCGCATAGCTCCGACTACAGCATGT
GGAGGAAGAACCAGTACGTACGTAAACGGGCTGCGCAGCTTTGCGGAGCGCGCGAGGCCCTGGGCGCTGATGAAGG
AGATCGAGGCGGCGGGGGAGGCGCTGCAGAGCGTGCACGCGGTGTTTTGCGCGCCCGCCGTCCCCAGCGGCACCG
GGCAGACGTGCGCGGAGCTGGAGGTGCAGCGCAGGCACTCGCTGGTCTCGTTTGTGGTGCGCATCGTGCCAGCC
CCGACTGGTTCTGTGGGCGTGGACAGCCTGGACCTGTGCGACGGGGACCGTTGGCGGGAACAGGCGGCGCTGGACC
TGTACCCCTACGACGCCGGGACGGACAGCGGCTTCACCTTCTCCTCCCCAACTTCGCCACCATCCCGCAGGACA
CGGTGACCGAGATAACGTCTCCTCTCCCAGCCACCCGGCCAACTCCTTCTACTACCCGCGGCTGAAGGCCCTGC
CTCCCATCGCCAGGGTGACACTGGTGCGGCTGCGACAGAGCCCCAGGGCCTTCATCCCTCCCGCCCCAGTCTGCG
CCAGCAGGGACAATGAGATTGTAGACAGCGCCTCAGTTCCAGAAACGCCGCTGGACTGCGAGGTCTCCCTGTGGT
CGTCTTGGGGACTGTGCGGAGGCCACTGTGGGAGGCTCGGGACCAAGAGCAGGACTCGCTACGTCCGGGTCCAGC
CCGCCAACAACGGGAGCCCCCTGCCCCGAGCTCGAAGAAGAGGCTGAGTGCCTCCCTGATAACTGCGTCTAAGACC
AGAGCCCCCGAGCCCCCTGGGGCCCCCGGAGCCATGGGGTGTCGGGGGCTCCTGTGCAGGCTCATGCTGCAGGCGG
CCGAGGCACAGGGGGTTTTGCGCTGCTCCTGACCGCGGTGAGGCCGCGCCGACCATCTCTGCACTGAAGGGCCCT
CTGGTGGCCGGCACGGGCATTGGGAAACAGCCTCCTCCTTTCCCAACCTTGCTTCTTAGGGGCCCCCGTGTCCCG
TCTGCTCTCAGCCTCCTCCTCCTGCAGGATAAAGTCATCCCCAAGGCTCCAGCTACTCTAAATTATGGTCTCCTT
ATAAGTTATTGCTGCTCCAGGAGATTGTCCTTCATCGTCCAGGGGCTGGCTCCACGTGGTTGCAGATACCTCA
GACCTGGTGCTCTAGGCTGTGCTGAGCCCACTCTCCCGAGGGCGCATCCAAGCGGGGGCCACTTGAGAAGTGAAT
AAATGGGGCGGTTTTCGGAAGCGTCAGTGTTTCCATGTTATGGATCTCTCTGCGTTTGAATAAAGACTATCTCTGT
TGCTCAC

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FIGURE 1008

MENPSPAAALGKALCALLLATLGAAGQPLGGESICSARAPAKYSITFTGKWSQTAFPKQYPLFRPPAQWSSLLGA
AHSSDYSMWRKNQYVSNGLRDFEAERGEAWALMKEIEAAGEALQSVHAVFSAPAVPSGTGQTSAELEVQRRHSLVS
FVVRIVSPDWFEVGVDSLDLDCGDRWREQAALDLYPYDAGTDSGFTFSSPNFATIPQDTVTEITSSSPSHPANF
YYPRLKALPFIARVTLVRLRQSPRAFI PPAPVLPSRDNEIVDSASVPETPLDCEVSLWSSWGLCGGHCGRLGTKS
RTRYVRVQFANNGSPCPELEEEAECPDNCV

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FIGURE 1009

GCTGGAGCCGGGCCGGGGCGATGTGGAGCGCGGGCCGCGGCGGGGCTGCCTGGCCGGTGCTGTTGGGGCTGCTGC
TGGCGCTGTTAGTGCCGGGCGGTGGTGCCGCCAAGACCGGTGCGGAGCTCGTGACCTGCGGGTCGGTGCTGAAGC
TGCTCAATACGCACCACCGCTGCGGCTGCACTCGCACGACATCAAATACGGATCCGGCAGCGGCCAGCAATCGG
TGACCGGCGTAGAGGCGTCGGACGACGCGAATAGCTACTGGCGGATCCGCGGCGGCTCGGAGGGCGGGTGCCCGT
GCGGGTCCCCGGTGCGCTGCGGGCAGGCGGTGAGGCTCACGCATGTGCTTACGGGCAAGAACCTGCACACGCACC
ACTTCCCGTCGCCGCTGTCCAACAACCAGGAGGTGAGTGCCTTTGGGGAAGACGGCGAGGGCGACGACCTGGACC
TATGGACAGTGCGCTGCTCTGGACAGCACTGGGAGCGTGAGGCTGCTGTGCGCTTACAGCATGTGGGCACCTCTG
TGTTCTGTGAGTCACGGGTGAGCAGTATGGAAGCCCCATCCGTGGGCAGCATGAGGTCCACGGCATGCCAGTG
CCAACACGCACAATACGTGGAAGGCCATGGAAGGCATCTTCATCAAGCCTAGTGTGGAGCCCTCTGCAGGTCACG
ATGAACCTCTGAGTGTGTGGATGGATGGGTGGATGGAGGGTGGCAGGTGGGGCGTCTGCAGGGCCACTCTTGGCAG
AGACTTTGGGTTTGTAGGGGTCTCAAGTGCCTTTGTGATTAAAGAATGTTGGTCTATGA

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FIGURE 1010

MWSAGRGAAWPVLLGLLLALLVPGGGAAKTGAELVTCGSVLKLLNTHHRVRLHSHDIKYSGSGQQSVTGVEAS
DDANSYWRIRGGSEGGCPCGSPVRCGQAVRLTHVLTGKNLHTHHFPSPLSNNQEVSAFGEDGEGDDLDLWTVRCS
GQHWEREAAVRLQHVGTSVFLSVTGEQYGSPIRGQHEVHGMP SANTHNTWKAMEGIFIKPSVEPSAGHDEL

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FIGURE 1011

ACCTCCGAAACCGTAGATTCCGGGCGGTCCGAGCCGCCGGGAGCTGTAGTTCTCCCGCGGCTCAGAGAAGTAGG
CAGAGAGCGGACCTGGCGGCCGGGCAGCATGGCGGGGCTGGAGCTCTTGTCGGA[^]CAGGGCTACCGGGTGGACGG
GCGGCGCGCCGGGGAGCTGCGCAAGATCCAGGCGCGGATGGGCGTGTTGCGCGAGGCTGACGGCTCGGCCTACAT
TGAGCAGGGCAACACCAAGGCACTGGCTGTGGTCTACGGCCCGCACGAGATCCGGGGCTCCCGGGCTCGAGCCCT
GCCGGACAGGGCCCTAGTGAAGTGTCAATATAGTTCAGCGACCTTCAGCACAGGTGAGCGCAAGCGACGGCCACA
TGGGGACCGTAAGTCCTGTGAGATGGGCCTGCAGCTCCGCCAGACTTTCGAAGCAGCCATCCTCACACAGCTGCA
CCCACGCTCCCAGATTGATATCTATGTGCAGGTGCTACAGGCAGATGGTGGGACCTATGCAGCTTGTGTGAATGC
AGCCACGCTGGCAGTGCTGGATGCCGGGATACCCATGAGAGACTTGTGTGTGCGTGCTCAGCTGGCTTCGTGGA
CGGCACAGCCCTGGCGGACCTCAGCCATGTGGAGGAAGCAGCTGGTGGCCCCCAGCTGGCCCTGGCCCTGCTGCC
AGCCTCAGGACAGATTGCGCTGCTTGAGATGGATGCCCCGGCTGCACGAGGACCACCTGGAGCGGGTGTGGAGGC
TGCTGCCCAGGCTGCCCCGAGATGTGCACACCCTCTTAGATCGAGTGGTCCGGCAGCATGTGCGTGAGGCCTCTAT
CTTGCTGGGGGACTTGACCACCCAGCCACCCATGTCCAGAATAAACCCCTCCTTGCCCCACACXXXXXXXXXX

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FIGURE 1012

MAGLELLSDQGYRVDGRRAGELRKIQARMGVFAQADGSAYIEQGNTKALAVVYGPHEIRGSRARALPDRALVNCQ
YSSATFSTGERKRRPHGDRKSCMGLQLRQTFEAAILTQLHPRSQIDIYVQVLQADGGTYAACVNAATLAVLDAG
IPMRDFVCACSAGFVDGTALADLSHVEEAAGGPQLALALLPASGQIALLEMDARLHEDHLERVLEAAAQAARDVH
TLLDRVVRQHVREASILLGD

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FIGURE 1013

CCGCTTCCCCGTCTTGTACACCCCTAACTCCTGAGGCTCCTCCGAATCACGCGAGTGGAAGCGGAGAAGCTCAAG
TGGCCGCC**ATG**TCAGAGGCTTATTTCCGAGTGGAGTCGGGTGCGCTGGGGCCTGAGGAGAACTTTCTTTCTTTGG
ACGACATCCTGATGTCCACGAGAAGCTGCCGGTGCGCACGGAGACCGCCATGCCTCGCCTTGGCGCTTTCTTCC
TGGAGCGGAGCGCAGGCGCCGAGACTGACAACGCGGTCCCACAGGGTTCCAAGCTTGAACCTACCCTTGTGGCTGG
CAAAAGGACTTTTTGACAACAAGCGACGGATCCTTTCTGTGGAACCTCCCAAGATCTACCAAGAGGGTTGGAGGA
CTGTGTTTCACTGCAGATCCCAATGTGGTGGACCTCCACAAAATGGGGCCCCATTTCTACGGGTTTGGCTCCCAGC
TCCTGCATTTTGACAGTCCCGAGAATGCAGACATTTCCAGTCTCTGCTGCAGACTTTTATCGGACGTTTTTCGCC
GCATCATGGACTCCTCACAGAATGCTTACAACGAAGACACTTCAGCCCTGGTAGCCAGGCTAGACGAGATGGAGA
GGGGCTTATTTCAAACAGGGCAGAAAGGACTGAATGACTTTTCACTGTTGGGAGAAAGGGCAGGCTTCTCAGATCA
CAGCTTCCAACCTCGTTTCAAGATTACAAGAAGAGAAAATTTCACTGATATGGAAGACT**TGA**AAGCCGGAAGAACACA
GAATGGCTCCTCACAGACGTATCCCTCCGTGTGCTTTGATAGGAGCTGGTTGACCTTGTACAGAACCAGAATCC
TGTCCCATTTTCACTGGCTTATTTCCCTGTGGCCATAGAGAATTATAGGGAAGCTGGACATGCTGGAGGATGTGGGTGT
CCCTGGCTCTGTGAGTCTTCCAGGACCGTCCACCCCTGCTGACCCACAGCCAGGCCCTTTAACCCAAGAACCCA
TGGCCAAGGAGAAATCAAAGTCCTTCCCTAAATAAGAATCACTGCCATATAATATATCACAGTAGAGTTGCAACTG
AGATTCCTTGTGTCTGGGAGTTTGGACAGCTTCAGATGTACAGTTTCACTAGCCACAAAGCACAGGTACAAACTG
GGTCATCGCCTGTTCAAAAATGCTCTCTTGATCTTATTTGCCTCATCTTCCTCATGGTTGTACAGAGGATAGCA
CCCCACCATGCCAGCCTGACTTGGAGATATCTCCTGCTGCCTGCCTGCAGGGAGTTACCCAGTTTCCAAAACA
GTCGCCCAGATAAAGGAGGAAAAGGGAAAGGCAGACGAATGGCATGGCTTTTACTAAAGAAAAGATGTTGGCCTC
ATÀCTCTATACTCAGGGCTTAATGAACTGGAATCTGCATAACTCAGCAGTCAACCCAGAAGGGAAATGGTTAAAC
TGAGCTTGTTATTGCCTCGGAGAGCCTAAGAGCACCCGCACACTTAATTCTACTCCCTGTCTAGAAAAGCTGTCA
GGGAGTCGTTTGAATTGCAATGTAGTTATTAAGGGCTGTAAACCAGCCTGCATTACATCTGGAAGTCAGGACTT
GGGTGCTGACTATGAAGGGCCCTGTTTTCAAATCTAACATTGCAAGTGTAATGGGCAAGAAGCCTCCGTTGTG
CTTTTTTTTTTCTCTTCACTAACTTTTGCAACATTATTGCATAGAAGATCCCTGACCATTTACTAGGAACCTGGT
TAAGCAAGCACTAATCTCTTTTCCCTGGAGATCAAGGATGCAACCTCAGGTTGAGAAAGAAACAGGGTTCCCTGGG
CCCATTAGACTGTTTGCAGGGCÀTCACTGCTTCCCCCTGACACCTCACAACTAGCAAAAATTGTCTTTGTCTTTG
GAAATTATAGAGGGATTGGGTATCCAGATTGTGCAGATGCAAACTTAGGCTGTCTTGATGCAAACTTAGAACCA
CAGAAATGCTTTTAAATGCCTGTTTTAAGATGGAATTGTTGTTTTTATAATTTGATTTTAGTGCTAAATAAATG
ATTGGCTTTGTACATGAATATGTTCTGTACAAGTGCTCTTTCACTAGTACTACAGATAATCAAAGCTATCAGAAT
TGTGTCTTTGATCATATTTGACGGTAATACACAAATAAATCCATGTTTTAGCAAAAAAAAAAAAAAAAAAAAAA
A

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FIGURE 1014

MSEAYFRVESGALGPEENFLSLDDILMSHEKLPVRTETAMPRLGAFFLERSAGAETDNAVPOGSKLELPLWLAKG
LFDNKRRILSVELPKIYQEGWRTVFSADPNVVDLHKMGPHFYGFSGQLLHFDSPENADISQSLQTFIGRFRRIM
DSSQNAYNEDTSALVARLDEMERGLFQTGQKGLNDFQCWEKGQASQITASNLVQNYKKRKFTDMED

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FIGURE 1015

GGCACGAGGGCACCGCAGGAGCAACGGTTGGTCCTGCGGCTGTGATGTCGGTGTTGAGGCCCCCTGGACAAGCTGC
CCGGCCTGAACACGGCCACCATCTTGCTGGTGGGCACGGAGGATGCTCTTCTGCAGCAGCTGGCGGACTCGATGC
TCAAAGAGGACTGCGCCTCCGAGCTGAAGGTCCACTTGGCAAAGTCCCTCCCTTTGCCCTCCAGTGTGAATCGGC
CCCGAATTGACCTGATCGTGTTTGTGGTTAATCTTCACAGCAAATACAGTCTCCAGAACACAGAGGAGTCCCTGC
GCCATGTGGATGCCAGCTTCTTCTTGGGGAAGGTGTGTTTCTCGCCACAGGTGCTGGGCGGGAGAGCCACTGCA
GCATTACCGGCACACCGTGGTGAAGCTGGCCACACCTATCAAAGCCCCCTGCTCTACTGTGACCTGGAGGTGG
AAGGCTTTAGGGCCACCATGGCGCAGCGCCTGGTGC CGTGCTGCAGATCTGTGCTGGCCACGTGCCCGGTGTCT
CAGCTCTGAACCTGCTGTCCCTGCTGAGAAGCTCTGAGGGCCCCCTCCCTGGAGGACCTGTGAGGGTGGCTGGCCC
CTGGGCTGCCCCCTTCTCATGGCTTCGTGCTGACTCCATAAACATTCTCTGTTGAGGATGTCCAGTCAGGGCTTGA
CAGGCCCAGGCTCAGCCCCCGGTGGCTGGGAAGGTTCCCTGCAGTGCCAGTGCTGCAGCAGGGAGAGCTGGGCAG
AAGCAGCGAGGGGGCCAGCTGGCGAGACTGTAGCCCCCTCCCACTCCCACACTCACTCTTGAGAGCCTGTGTC
TTTAAGCAGCTGGCGTGTTACATCTCCATTTAAGGTTTCCTTTGAACAAAAGGTCTGTGGCTAAAAAAGTTTAA
AAATCAAAAAAAAAAAAAAAAAAAAA

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FIGURE 1016

MSVLRPLDKLPGLNTATILLVGTEALLQQADSMKEDCASELKVHLAKSLPLPSSVNRPRIDLIVFVNLHSK
YSLQNTTEESLRHVDASFFLGKVCFLATGAGRESHCSIHRHTVVKLAHTYQSPLLYCDLEVEGFRATMAQRLVRVL
QICAGHVPGVSA LNLLSLLRSSEGPSLEDL

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FIGURE 1017

GGGAGTAGGAGGTGTGACCGGAGGGCGAAATTGGGGCTTCCTCTGCTCTGGTGACCCAGAACCGTCAACTGAAAT
GACCTGTCTGTGTAGTACTCCGGCAGGATGGGCCTCGGAGCGTAAAGGCGGCACAAAACAAAAATATTAAAAAA
AGGAGAGAGGGACAAAAAAGAAAACCCGAAAGTTTCAGCTGCATTGCTGCGGAACGTTTTTTAGCCAGAAGGC
GAAAGAAGAAATCGGAAGTGACGTCGCGGCCAAAACAAGCCCGGGCTTGGAGGCCTGTACTGAAGCTGGCCTCAG
ATGGGAAGGCCCCGACTCGCTGTCTGCTGTCTGCTGCGTGGTTCGCGAGACCTTGCACTCTCACCGGGTGCGCCTCCAG
CCCCGTGTCGCCGGGATCCGCTCGCCGCGGATGAGCGAGAGTTTCTTCCTGGGACTTTTCGGGCACAGCTGGCCGG
TGGCGACAGAACGGACTTTCTTTCTGCAAGAGTCTCCCCCTCCAGCGGGAGACAGCGGGCTCCTGTCTCGGGACG
CTGGGACACCTGTGCGCTATTTTTTAAATATCCAGATTCCAAGAACACACTGGATACTGCTCTTACAAAACCAAGA
GGAAATCATGAAGAAATGTTTTAGTTATTGAAACTACAGTTGAAATCATGGATACATCAACAAATCTGGATATTG
GAGCCCAGCTTATCGTGAAGAGTGTCCCAGCACTTATAGCCTAACTGGCATGCCAGACATTAAATAGAACATC
CACTGGACCCAAATTCAGAAGAAGGGTCAGCTCAGGGTGTGCCATGGGAATGAAATTCATATTGCCTAACCGAT
TTGATATGAATGTGTGTTCTCGATTTGTGAAGTCCTTAAATGAAGAAGATAGTAAAAATATTCAAGATCAGGTTA
ACTCTGACCTGGAGGTGGCATCTGTCTCTATTTAAAGCTGAATGCAATATCCATACATCTCCTTCTCCGGGAATTC
AAGTAAGGCATGTCTACACCCCTCTACAACAAAGCATTTCTCACCCATAAAACAGTCAACCACTTTAAACCAACA
AACACAGAGGAAATGAGGTCTCTACCACACCTCTGTTAGCAAAATCTTTGTCTGTTACCAGTTGGCTGCTCAGG
GAGAGATGCTCTATCTGGCTACTCGTATCGAACAAGAAAATGTTATCAATCACACGGATGAAGAAGGATTTACTC
CTCTGATGTGGGCTGCAGCACACGGGCAAATAGCTGTGGTAGAGTTCCTACTTCAGAATGGTGTGATCCCCAAC
TTTTAGGAAAAGGTCGAGAAAGTGCAGTGTGCTGGCCTGTAGTAAAGGCTACACAGATATTGTCAAATGCTGC
TTGATTGTGGAGTTGATGTAAATGAATATGATTGGAATGGAGGAACACCTCTGCTTTATGCTGTACATGGAAATC
ATGTGAAATGTGTAAAGATGCTCTTAGAAAGTGGGGCTGATCCAACAATTGAAACTGACTCTGGATATAATTCTA
TGGATCTAGCTGTAGCCCTAGGCTATAGAAGTGTTCACAGGTTATTGAGTCACATTTGTTGAAGCTGCTTCAA
ATATCAAGGAGTAGACACAGTCATCAGAAAATGTCTGCCCTTTGTTTTACTTCTTGGTCCTTATAAATGATAGTT
TTGTTTACTTATAAATTTTTACCTCAGTTGCAATATTTACTGGTTTTTAGTAGGTTTTAATAAATATTTCTCTGA
GTAATTCAGTGGTTTATAATAAATGTAATACTCTTTTTATAACTATGTTTTACTGTATATTTAAATTTATAAAT
AATGTTTTCTGTGGCATGTAAATTTTTATGGTACAGATAGTTATCATCAGTCTTTGTATCAAGTGCTGTAATTTGA
CATTTTCAGAAATTATTCTACCCTAGTCATCTTCACTCGTGTATTAAGTCATTCATTTATATAGGGTTTGCTAT
AAATCCCTAGAAAAAATTGTTCTTATTGTTGAATTAAAAAGTGCACAGTGTGATTGTTTACAAATGATATTAT
AAATAAATAAAATACTTCTTCTG

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FIGURE 1018

MDTSTNLDIGAQLIVEECPSTYSLTGMPDIKIEHPLDPNSEEGSAQGVAMGMKFILPNRFDNMVCSRFBVKSLENEE
DSKNIQDQVNSDLEVASVLFKAECNIHTSPSPGIQVRHVYTPSTTKHFSPIKQSTTLTNKHRGNEVSTTPLLANS
LSVHQLAAQGEMLYLATRIEQENVINHTDEEGFTPLMWAAAHGQIAVVEFLLQNGADPQLLGKGRESALSLACSK
GYTDIVKMLLDGVDVNEYDWNGGTPLLYAVHGNHVKCVKMLLESGADPTIETDSGYNSMDLAVALGYRSVQQVI
ESHLLKLLQNIKE

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FIGURE 1019A

ATCCTTGCCGCCCCGCCCCGCCCCAGCCGCTCCCGGAGCCGTCGGGC**ATG**GAGCCGTGGAAGCAGTGC GCGCAGT
GGCTCATCCATTGCAAGGTGCTGCCCACCAACCACCGGTGACCTGGGACTCGGCTCAGGTGTTGACCTTGCGC
AGACCCTCCGCGATGGAGTCTTGCTCTGCCAGCTGCTTAACAACCTCCGGGCGCACTCCATCAACCTGAAGGAGA
TCAACCTGAGGCCGCGAGATGTCCAGTTTCTCTGTTTGAAGAACATAAGGACATTTCTCACGGCCTGTTGTGAGA
CGTTTGGAATGAGGAAAAGTGAACTTTTCGAGGCATTTGACTTGTTTGATGTTTCGTGACTTTGGAAAGGTTATAG
AAACATTATCACGACTTTCTCGAACACCTATAGCATTGGCCACAGGAATCAGGCCCTTCCCAACAGAAGAAAGCA
TTAATGATGAAGACATCTACAAAGGCCTTCCTGATTTAATAGATGAAACCCTTGTTGGAAGATGAAGAAGATCTCT
ATGACTGTGTTTATGGGGAAGATGAAGGTGGAGAAGTCTATGAGGACTTAATGAAGGCAGAGGAAGCACATCAGC
CCAAATGTCCAGAAAATGATATACGAAGTTGTTGTCTAGCAGAAATTAAGCAGACAGAAGAAAAATATACAGAAA
CTTTGGAGTCAATAGAAAAGTATTTTCATGGCACCCTAAAAAGATTTCTGACAGCAGCAGAATTTGATTTCAGTAT
TCATCAACATTTCCTGAACTTGTAACCTTCATCGGAACCTAATGCAAGAGATTTCATGATTCCATTGTAAATAAAA
ATGACCAGAACTTGTAACCAAGTTTTTTATTAACCTACAAGGAAAGATTGGTTATTTACGGGCAGTACTGCAGTGGAG
TGGAGTCAGCCATCTCTAGTTTAGACTACATTTCTAAGTCAAAAGAAGATGTCAAACCTGAAATTAGAGGAATGTT
CCAAAGAGCAAATAATGGGAAATTTACTCTTCGAGACTTGCTTGTTGCTTCTATGCAACGTGTTTTAAAGTACC
ACCTTCTCCTCCAGGAACCTGGTCAAACATACCCTGATCCGACTGAGAAGGCAAATCTGAAACTGGCTCTTGATG
CCATGAAGGACTTGGCACAATATGTGAATGAAGTGAAGAGATAATGAGACCCTTCGTGAAATTAAACAGTTTC
AGCTATCTATAGAGAATTTGAACCAACCAGTTTTGCTTTTTGGACGACCTCAGGGAGATGGTGAAATTCGAATAA
CCACTCTAGACAAGCATACCAAACAAGAAAGGCATATCTTCTTATTTGATTGGCAGTGATCGTATGTAAGAGAA
AAGGTGATAACTATGAAATGAAGGAAATAATAGATCTTCAGCAGTACAAGATAGCCAATAATCCTACAACCGATA
AAGAAAACAAAAGTGGTCTTATGGCTTCTACCTCATCCATACCCAAGGACAAAATGGGTTAGAATTTTATTGCA
AAACAAAAGATTTAAAGAAGAAATGGCTAGAACAGTTTGAAATGGCTTTGTCTAACATAAGACCAGACTATGCAG
ACTCCAATTTCCACGACTTCAAGATGCATACCTTCACTCGAGTCACATCCTGCAAAGTCTGCCAGATGCTCCTGA
GGGGAACATTTTATCAAGGCTATTTATGTTTTAAGTGTGGAGCGAGAGCACACAAAGAATGTTTGGGAAGAGTAG
ACAATTGTGGCAGAGTTAATTCTGGTGAACAAGGGACACTCAAACCTACCAGAGAAACGGACCAATGGACTGCGAA
GAACTCCTAAACAGGTGGATCCAGGTTTACCAAAGATGCAGGTCATTAGGAACTATTCTGGAACACCACCCCCAG
CTCTGCATGAAGGACCCCTTTACAGCTCCAGGCCGGGGATACCGTTGAACTTCTGAAAGGAGATGCACACAGTC
TGTTTTGGCAGGGCAGAAAATTTAGCATCTGGAGAGGTTGGATTTTTTCCAAGTGATGCAGTCAAGCCTTGCCAT
GTGTGCCCAAACAGTAGATTATTCTTGCCAACCCTGGTATGCTGGAGCAATGGAAGATTGCAAGCAGAGACCG
AACTTATTAATAGGGTAAATAGTACTTACCTTGAGGCACAGGACCAAAGAGTCAGGAGAATATGCAATTAGCA
TTAAGTACAATAATGAAGCAAAGCACATCAAGATTTTAACAAGAGATGGCTTTTTTCACATTGCAGAAAATAGAA
AATTTAAAAGTTAATGGAACCTGTGGAGTACTACAAGCATCATTCTCTCAAGGAAGGGTTCAGAACCTTAGATA
CAACTCTGCAGTTTCCATACAAGGAGCCAGAACATTACAGCTGGACAGAGGGGTAATAGAGCAGGCAACAGCTTGT
TAAGTCCAAAAGTGCTGGGCATTGCCATCGCTCGGTATGACTTCTGTGCAAGAGATATGAGAGAGTTGTCCTTGT
TGAAAGGAGATGTGGTGAAGATTTACACAAAGATGAGTGCAAATGGCTGGTGGAGAGGAGAAGTAAATGGCAGGG
TGGGCTGGTTTCCATCCACATATGTGGAAGAGGATGAAT**TA**AATTCAAATCCCGTGTGCAACCTGCACCAAAAAT
TTCAGAGAAGGGATAAATAGAACCTGCACAGCATCGTGAATTAAGTGAAGTGTTAAAAAGCTGCATTTCTGGC
TGTTCAACATCCTCCCTCCTTAGCCCCCTCCTAAGTCTTAATGCTGAGATTTCTAAAGATGCTGGTACTGACAGAT
TAATGGCTTGCTAGAGCTGTGCAAGAAACAGCCTGCCAGTCTGTCAATTGTCAGGGACCAGGGCAAACCAAGAG
CTGTTCTTCCAGAAAGAGCCCTGCAAACACATTGGTTTCGTGCTTCCCTTTACTTCTTCTGGTCAGATACCATGAA
TGCCAGTCATCAGTAAATCTTAATACACTTTTGCTTTATTCTCACATGCCATTACCAGATTATTTGATGGTACA
AAGAAGCAGAAGTGTAATTTTCTTTTCCAGCATGACGAAAAATTGGAGTTCTGCCATTTGAGCAGCTTACTGG
AAAGATCCAGCCTTACTTGTCTTAAATTTGTCCAACAAGGTGACTCATTGCCCCGCAAAACACTTTTACCCTCAGAT
GTTACTCATGATATTATAAAATATGAGGCCAGTGCTCAGGTTTGCATCATAAGTGAGCTATCCCTGAAGGGTTTT
AATTACTTATTTGGTGTCTCTGATTATATTTGCAAACCTTCTTTATAAAAGGTGAAAAAAGCACACAAAAGAGAGGG
TGTCTTCATATTAAACCTTACAACCTTCATGATTTTCATAGGATTATTTTGAAATATAGCACTTGACTTTATGA
AAGGATCTGGGCTAGGTATATTAGGGGTAGTTGCCAATAACCTGAAGAAGCTGGCATTGTTTACAGAAACAGATC
AAGGGCTATAATTTATGTCATTTTATAGCAGCAGTATCTATTAATACATGCCTTTTCTCCTCCCATCCACCTCCCC
GCACACACACAAAGATGACCTGGGACATGATTTTTTTTATTCCACATTTTCTTGGAGCACAAACAACTTTGTGTA

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FIGURE 1019B

GGATTTTGAAGGAAAAGCACAACCTGGGTCCTTTATTCATTTCTGGGACAGAAAAGAGGGTCAGTGGACTTTTGTGG
 GCCTCCAGCTTCTCTCAGAGTCTCCCCCTCTGCAGCCCATCCTGGGAGTGTATTAACCTGGAGGGAAGATGGGTCT
 TGCAGTACATTTGTTTTGCCAGCCATCAGTCTTTTTTGTGAGGAGCCTAAATACATTCTTCCTGGGGTCCAGAG
 TCCCCATTCAAGGCAGTCAAGTTAAGACACTAAGTTGGCCCTTTCTGATGGAAAATATTTCTCCATAGCAGAAG
 TTGTGTTCTGACAAGACTGAGAGAGTTACATGTTGGGAAAAAAGAAGCATTAACTTAGTAGAACTGAACCAGG
 AGCATTAAAGTTCTGAAATTTTGAATCATCTCTGAAATGAAGCAGGTGTAGCCTGCCCTCTCATCAATCCGTCTGG
 GTGCCAGAACTCAAGGTTCAAGTGGACACATCCCCCTGTTAGAGACCCCTCATGGGCTAGGACTTTTCATCTAGGAT
 AGATTCAAGACCTTTACCTCAGAATTATGTAACTGTGATTGTGTTTTAGAAAAATTATTATTTGCTAAAACCAT
 TTAAGTCTTTGTATATGTGTAAATGATCACAAAAATGTATTTTATAAAATGTTCTGTACAATAAAGTTACACCTC
 AAAGTGTACTCTTGGAATGGATTCTTTCTGTAAAGTCTTATCTGCGACTCTGTCTCGGGAATGTTTTGTCTGTT
 GCCGTACGCCGAACCTTTGTTATGGAGGGAGCAGCCTCACACAAGCAGAAACACTCCTGTGGATGGTATTGTAGCA
 TGTATTGTTTTATTTTAGTCAATAGACCCTCTCCTTATAAATGGTGTTTAGTCTTCTGTGCAATTCATGGGCCT
 GGGGGTTTCTAGCAGAGGATATTGGAGCCCCTTTTTGTGACATTACCAATTACATCTTTGTCCACGTTTAATAC
 TTTGTTTTGGAAAAATTAATGCTGCAGATTTGTGTAGAGTTCTAATACCAAAGACAGAAGTAAATGTTTTCCAT
 ATACTTTGTCTTGCCTGTATGCAGCCCTTGIGTAATATGGTGAATTAGAGTGGTATTTCACTTTGTATTATTTTG
 TAAATATGTCAATATAATAAATAGTGACTAAAAA

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FIGURE 1020

MEPWKQCAQWLIHCKVLPTNHRVTWDSAQVFDLAQTLRDGVLLCQLLNNLRAHSINLKEINLRPQMSQFLCLKNI
RTFLTACCETFGMRKSELF EAFDLFDVRDFGKVIETLSRLSRTPIALATGIRPFPT EESINDEDIYKGLPDLIDE
TLVEDEEDLYDCVYGEDEGEVYEDLMKAEEAHQPKCPENDIRSCCLAEIKQTEEKYTETLESIEKYFMAPLKR
LTAAEFDSVFINIPELVKLHRNLMQEIHDSIVNKNDONLYQVFINYKERLVIYGQYCSGVESAISSLDYISKSKE
DVKLKLEEC SKRANNGKFTLRDLLVPMQ RVLKYHLLQELVKHTTDPTEKANLKLALDAMKDLAQYVNEVKRDN
ETLREIKQFQLSIENLNQPVLLFGRPQGDGEIRITTLDKHTKQERHIFLFDLAVIVCKRKGDNYEMKEIIDLQQY
KIANNPTTDKENKKWSYGFYLIHTQGQNGLEFYCKTKDLKKKWLEQFEMALSNIRPDYADSNFHD FKMHTFTRVT
SCKVCQMLLRGTFYQGYLCFKCGARAHKECLGRVDNCGRVNSGEQGTLKLPEKRTNGLRRTPKQVDPGLPKMQVI
RNYSGTPPPALHEGPPLQLQAGD TVELLKGDHSLFWQGRNLASGEVGFFPSDAVKPCPCVPKPDYSCQPWYAG
AMERLQAE TELINRVNSTYLVRHRTKESGEY AISIKYNNEAKHIKILTRDGGFFHIAENRKF KSLMELVEYYKHHS
LKEGFRTILD TTLQFPYKEPEHSAGQ RGNRAGNSLLSPKVLGIAIARYDFCARDMRELSLLKGDVVKIYTKMSANG
WWRGEVN GRVGF PSTYVEEDE

FIGURE 1021

FIGURE 1021

[illegible]

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FIGURE 1022

MKTS DIKELNIVLPEFEKTHLEHQQRIESKVCKAAIATFYVNVKEQFIKMLKESQMLTNLKRKNAKMISDIEKKR
QRMIEVQDELLRLEPQLKQLQTKYDELKERKSSLRNAAYFLSNLKQLYQDYSDVQAQEPNVKETYDSSSLPALLF
KARTLLGAESHLRNINHQLEKLLDQG

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FIGURE 1023

ATGTGGGGGCGCACGGCGGGCGGCGCTGCCCGCGGAACTGCGGCGGGCCGGGAGGCGCTGTTGGTGCTCCTG
GCGCTACTGGCGTTGGCCGGGCTGGGCTCGGTGCTGCGGGCGCAGCGTGGGGCCGGGGCCGGGGCTGCCGAGCCG
GGACCCCGCGCACCCCGCGCCCCGGGCGGCGCAGCCGGTCATGCCCGGGCCCGGTGCCGGCGAACGCGCTG
GGCGCGGGGGCGAGGCGGTGCGGCTGCAGCTGCAGGGCGAGGAGCTGCGGCTGCAGGAGGAGAGCGTGCGGCTG
CACCAGATTAAACATCTACCTCAGCGACCGCATCTCACTGCACCGCCCGCTGCCCGTGCGCTGGAACCCGCTGTGC
AAAGAGAAGAAATATGATTATGATAATTTGCCAGGACATCTGTTATCATAGCATTTTATAATGAAGCCTGGTCA
ACTCTCCTTCGGACAGTTTACAGTGTCTTGAGACATCCCCGATATCCTGCTAGAAGAAGTGATCCTTGTAGAT
GACTACAGTGATAGAGAGCACCTGAAGGAGCGCTTGGCCAATGAGCTTTCGGGACTGCCCAAGGTGCGCCTGATC
CGCGCCAACAAGAGAGAGGGCCTGGTGCGAGCCCGGTGCTGGGGGCGCTGCGGCGAGGGGCGATGTTCTGACC
TTCCTGGACTGTCACTGTGAGTGCCACGAAGGTGGCTGGAGCCGCTGCTGCAGAGGATCCATGAAGAGGAGTCG
GCAGTGGTGTGCCCCGGTGATTGATGTGATCGACTGGAACACCTTCGAATACCTGGGGAACTCCGGGGAGCCCCAG
ATCGGCGGTTTTCGACTGGAGGCTGGTGTTACGTGGCACACAGTTCCTGAGAGGGAGAGGATACGGATGCAATCC
CCCGTCGATGTCATCAGGTCTCCAACAATGGCTGGTGGGCTGTTTGTGTGAGTAAGAAATATTTTGAATATCTG
GGGTCTTATGATACAGGAATGGAAGTTTGGGGAGGAGAAAACCTCGAATTTTCCTTTAGGATCTGGCAGTGTGGT
GGGGTTCTGGAACACACCCATGTTCCCATGTTGGCCATGTTTTCCCAAGCAAGCTCCCTACTCCCGCAACAAG
GCTCTGGCCAACAGTGTTTCGTGCAGCTGAAGTATGGATGGATGAATTTAAAGAGCTCTACTACCATCGCAACCC
CGTGCCCGCTTGGAACCTTTTGGGGATGTGACAGAGAGGAAGCAGCTCCGGGACAAGCTCCAGTGTAAGACTTC
AAGTGGTTCTTGGAGACTGTGTATCCAGAACTGCATGTGCCTGAGGACAGGCCTGGCTTCTTCGGGATGCTCCAG
AACAAAGGACTAACAGACTACTGCTTTGACTATAACCCTCCCGATGAAAACCAGATTGTGGGACACCAGGTCATT
CTGTACCTCTGTCATGGGATGGGCCAGAATCAGTTTTTCGAGTACACGTCCCAGAAAGAAATACGCTATAACACC
CACCAGCCTGAGGGCTGCATTGCTGTGGAAGCAGGAATGGATACCCTTATCATGCATCTCTGCGAAGAACTGCC
CCAGAGAATCAGAAGTTCATCTTGAGGAGGATGGATCTTTATTTACGAACAGTCCAAGAAATGTGTCCAGGCT
GCGAGGAAGGAGTCGAGTGACAGTTTCGTTCCACTCTTACGAGACTGCACCAACTCGGATCATCAGAAATGGTTC
TTCAAAGAGCGCATGTTAT**TGA**

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FIGURE 1024

MWGRTARRRCPRELRRGREALLVLLALLALAGLGSVLRAQRGAGAGAAEPGPPRTPRPGRREPVMPPVPANAL
GARGEAVRLQLQGEELRLQEESVRLHQINIYLSDRISLHRRLPVRWNPLCKEKKYDYNLPRTSVIIAFYNEAWS
TLLRTVYSVLETSPDILLEEVILVDDYSDREHLKERLANELSGLPKVRLIRANKREGLVRARLLGASAARGDVL
FLDCHCECHGWLEPLLQRIHEEESAVVCPVIDVIDWNTFEYLGNSGEPQIGGFDWRLVFTWHTVPERERIRMQS
PVDVIRSPTMAGGLFAVSKKYFEYLGSYDTGMEVWGGENLEFSFRIWQCGGVLETHPCSHVGHVFPKQAPYSRNK
ALANSVRAAEVWMDEFKELYHRNPRARLEPFGDVTERKQLRDKLQCKDFKWFLETVPPELVHPEDRPGFFGMLQ
NKGLTDYCFDYNPPDENQIVGHQVILYLCHGMGQNOFFEYTSQKEIRYNTHQPEGCIAVEAGMDTLIMHLCEETA
PENQKFILQEDGSLFHEQSKKCVQAARKESDSFVPLLRDCTNSDHQKWFFKERML

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FIGURE 1025

AATTATATATTTTTACTCTATGTTTCTCTACATGTTTTTTTCTTTCCGTTGCTGGCGGAAGAGGCACGTGCGCTG
CTGAATGGAGCTGGTCGCTGGTTGCTACGAGCAGGTCCTCTTTGGGTTGCTGTACACCCGGAGCCCAAGGCTTG
CGGCGACCACGAGCAATGGACTCTTGTGGCTGACTTCACTCACCATGCTCACACTGCCTCCTTGTGAGCAGTAGC
TGTAATAGTCGTTTTGTGGTCACTGGGAGCAAAGATGAAACAATTCACATTTATGACATGAAAAAGAAGATTGA
GCATGGGGCTCTAGTGCATCACAGTGGTACAATAACTTGCCTGAAATTCTATGGCAACAGGCATTTAATCAGTGG
AGCGGAAGATGGACTCATCTGTATCTGGGATGCAAAGAAATGGGAATGCCTGAAGTCAATTAAAGCTCACAAAGG
ACAGGTGACCTTCCTTTCTATTCACCCATCTGGCAAGTTGGCCCTGTCGGTTGGTACAGATAAACTTTAAGAAC
GTGGAATCTTGTAGAAGGAAGATCAGCATTCAAAAAATATAAAACAAAATGCTCACATAGTAGAATGGTCCCC
AAGAGGAGAGCAGTATGTAGTTATCATAACAGAAATAAAATAGACATCTATCAGCTTGACACTGCATCCATTAGTGG
CACCATCACAAATGAAAAGAGAATTTCTCTGTAAATTTCTTTCAGAGTCTGTCCTTGACAGTGGCTGGAGATGA
AGAAGTTATAAGGTTTTTTGACTGTGATTCACTAGTGTGCCTCTGCGAATTTAAAGCTCATGAAAACAGGGTAA
GGACATGTTTCAAGTTTTGAAATTCAGAGCATCATGTTATTGTTTCAGCATCGAGTGATGGTTTCATCAAAATGTG
GAAGCTTAAGCAGGATAAGAAAGTTCCCCCATCTTTACTCTGTGAAATAAACACTAATGCCAGGCTGACGTGTCT
TGGAGTGTGGCTAGACAAAGTGGCAGACATGAAAGCCTTCCTCCAGCTGCAGAGCCTTCTCCTGTAAGTAAAGA
ACAGTCCAAAATTGGCAAAAAGGAGCCTGGTGACACAGTGCACAAAGAAGAAAAGCGGTCAAAACCTAACACAAA
GAAACGCGGTTTAACAGGTGACAGTAAGAAAGCAACAAAAGAAAGTGGCCTGATATCAACCAAGAAGAGGAAAAT
GGTAGAAATGTTGAAAAGAAGAGGAAAAAGAAGAAAATAAAAAACAATGCAGTGAATCACAGATGTCTCCTGAAA
GAACTCTTTTAGATGAAATCATTCTACTCAAATGTACCTTAATTTTTTTTTTCCCTGAGTAAAAGCAAGAAATT
TCTTCCTTTGGAAAAAATATATATATATAAAAAACCACTTTTAGATGGTTTTTTTTTAAAAAATAAAAAAATGG
TAAAATTACTTTTGGCAGACAGTGTATGAATTATGTATCATGTTGATATATAATATGTTAATGTGTCATGTA
ATTTTTACTTTGTACAAAGCAAATAAAGATCTTTCTCAAAAAAAAAAAAAAAAAA

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FIGURE 1026

MELVAGCYEQVLFGFAVHPEPKACGDHEQWTLVADFTHHAHTASLSAVAVNSRFVVTGSKDETIHIYDMKKKIEH
GALVHHSGTITCLKFYGNRHLISGAEDGLICIWDAKKWECLKSIKAHKGQVTFLSIHPSGKLALSVGTDKTLRTW
NLVEGRSAFIKNIKQNAHIVEWSPRGEQYVVIIQNKIDIYQLDTASISGTITNEKRISSVKFLSESVLAVAGDEE
VIRFFDCDSLVCLEFKAHENRVKDMFSFEIPEHHVIVSASSDGF IKMWKLKQDKKVPPSLLCEINTNARLTCLG
VWLDKVADMKSLPPAAEPSVPSKEQSKIGKKEPGDTVHKEEKRSKPNTKKRGLTGDSKKATKESGLISTKKRKMV
EMLEKKRKKKKIKTMQ

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FIGURE 1027

AAACCCAAAGCGGCCGCCGTAGGCGAAGGTGAAGATGGCTGCCTCTGCCTTTGCTGGTGCAGTGAGAGCAGCTTC
AGGAATCCTACGGCCCCCTGAATATTTTGGCATCTTCAACCTACCGCAACTGTGTCAAGAATGCCTCTCTTATTTT
TGCATTGTCCACTGGACGTTTTAGTCATATTTCAGACACCAGTTGTTTTCTCCACTCCCAGACTTACCACATCTGA
GAGAAACCTGACATGTGGGCATACCTCAGTGATCCTTAATAGAATGGCCCCCGTGCCTTCCAAGTGTCTGAAGCT
GCCAGTCAGATCTCTAACATACTTCAGTGCAAGAAAAGGCAAGAGAAAGACCGTGAAAGCTGTCATCGATAGGTT
TCTTCGACTTCATTGTGGCCTTTGGGTGAGGAGAAAGGCTGGCTATAAGAAAAAATTATGGAAAAAGACACCTGC
AAGGAAGAAGCGATTGAGGGAATTTGTATTCTGCAATAAAACCCAGAGTAAACTCTTAGATAAAATGACGACGTC
CTTCTGGAAGAGGCGAAACTGGTACGTTGATGATCCTTATCAGAAGTATCATGATCGAACAAACCTGAAAGTATA
GATCAGAAGTTTTCACTTGTTTCTCAGTTATTGGATATGTATCTTTGTGTACATATCTTTGCAAAAATGGATAAGT
ACAAAACCTTGATGTAAATTGTACCAATGAATACGTAAACATACAGTGACAACATTAAACTTAGAAAAAGTTTTAA
ACTTAATGGATCAGACTTTGCCAGATTTGGTTAGGGAAACAGAAATTTAGAATGGTGCATTATTTTTTAACAAATG
GTATTGGCTTAACTAGTTGTTTTCAGTTATGCTCTTTTAGTTGCAAGGAATCTCAAGTGGGACAAACATAAAAAAG
CTCAAAAGCTACAAGTTAGCTCAAGCAATGTGACATTATTTCAAGGATATGTGCCAGGGAATTCAGGAACCACCT
CACCAACCCCATCTCCCACTCAGAAATCACCTCCCAGCCTCAGGAAGAGTAGAAATTGGGTGGTGTCTCCTCAGCA
GGGGAAGGTGGATGTTTAGGCTTGGGCTCTGCATGCATGTGACTTGCTTCTTTTTTGATTGTTAACTCCATTCTC
TCTATTCACCAACTTCTCTACACAGCTTTTGCACTTACAGTTTTCTGTTTCTTTGTAATAACTTTAACTTGCAC
CTTTGAGGTTCTTTTCTACATGATGACCTTCAGCTCCTGCTGCTAGTCTCCAATTGCCAAGGGAATTTAACTGGG
CCAGACTACCTTTTTTATACTAGGTCTGGTTGGGTCATTGTCTAGAGTAGGGATTGGCTGTCCTTAAGTCAGGAGC
CCGCTTTGTATTAGCAGGTTTGCATGCAGCAAAAAACAGTTATGTGAGCAGTTTCACTTGGAGGTTACATGGG
GTGGCAGCACACTTAACATCTAACACACCAGGTTTATTGTGTTTATAACACTTGTCACTTACTGTAACAACATTT
TTTCATAGGAGAGTAAATAGCCCTTCAGCATGCTCATTATGAAACAGAAGAGGCTGTACAAGTGAAGACAAGGG
CTTTTTATGCAAGTTTTGAAAGATAGGTATTTATTTTTTCTAGAGACAGGAGTTTTGCTCTGTTGCCAGGCTGG
AGTGCAGTGGTGCAATCATAGCTCATTGAAGCCTCGCACTCCTGGGCTCAAGTGGTCCTCCTGCCTCAGCTTACT
GAGTAAGGATATGTATTTCTTAAAAGTTAGTTTATCCACTTCAGATTTTCATGTTTTCATTTGTAAGGATAAACTT
TTCCACAAATTTTCAACAATCATTGTAGAACTAAGGGGGAGAAAGTAATCTCAGTTGTTTTAGAAACGAAAA
GTTAAGCATTGTTTACTTGAAAGTGGGCAGGGAAGCAGCACTGAGTAAAGTTCAATTGAGTGGTTACAGTCTAGGG
CAGTGGTTCCCAACTCTCCGATCAGAATCATCTGGGAAGCATTTTCAAACAGCAAAAGTACTTTGAAAACCATAT
TAAATAGAATTATGCATGAATTACTGTTTCAGATCCTTTAATGTGGTAGTTGGTAATAATAAGATGAAATTCCTC
TGTTGTTAGTAAAAATTATGAAATTGAAGTTCTGCAGCATGTGAGGCCAGGATTATTAGGGAGATTCTCGAACT
AGTGTGTGTTTATTAAGAGGAGAAAGGATAACAATAGAATGTTCTAAAACAGAAAGTCCAAGTGCCTGTCTACTT
ATGGGACCAATAAATAAAGAACAGACATTTGATTTGAGGTGAGGTAAAAGCCTGAAACATGGAATGGCATTCTGT
TTTGATGGATTTTCATTTCTTCGCACCTCTGAGACGGCAAAGCCAACCCTTAGAAGCCTTCCACATCTTTGTCA
CCTGCCTGGCTCCTGCTCTCTGATGTACCTCTGGGTAGTGAGATGGAAATGGTGCCTGCAGAAAGTTGGGGAGAAG
GATACTTTTGCACAGCCTCCATGATGTCTTTATTGCAAAATATGGATGACAAGGGTCTCTGTTACAGGGGCCTCAG
AGCACCTTCGTTTCTCCTCTAGACCAGGGACAGGTGTAGAGATAAGGACTGGCAACCAGAGCCTCAGCATCCAAA
GATGGACTGAAGTGGGATGGCTGACAGGCACATAACTTACGGGAAAGGGAATTCATACATACGATTTTTGTTTT
GTGGGTAGGAGGGCTTATCATCAACACTGATTTTATAATCTGACAATAAATGTCTTTCATTAAAGAGTTTACCTA
AATGAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 1028

MAASAFAGAVRAASGILRPLNILASSTYRNCVKNASLISALSTGRFSHIQTPVVSSTPRLTTSE
RNLTCGHTSVI
LNRMAPVLPSVLKLPVRSITYFSARKGKRKTVKAVIDRFLRLHCGLWVRRKAGYKKKLWKKTP
ARKKRLREFVFC
NKTQSKLLDKMTTSFWKRRNWYVDDPYQKYHDRTNLKV

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FIGURE 1029

GGCGCCGGGGACACGTTGGCTGCGTTTTTCGGCGGGCCTCCCGGGTACAAAAATGGCTGTGGCTAGCGATTTCTA
CCTGCGCTACTACGTAGGGCACAAGGGCAAGTTTGGGCACGAGTTTCTGGAGTTCGAATTTTCGGCCGGACGAAA
GCTTAGATATGCCAACACAGCAATTACAAAAATGATGTGATGATCAGAAAAGAGGCTTATGTGCACAAGAGTGT
AATGGAAGAACTGAAGAGAATTATTGATGACAGTGAAATTACAAAAGAAGATGATGCTTTGTGGCCTCCCCCTGA
TAGGGTTGGCCGACAGGAGCTTGAAATTGTAATTGGAGATGAGCACATATCTTTTACCACATCAAAAATAGGTTT
TCTTATTGATGTAAATCAGTCAAAGGATCCTGAAGGCCTTCGAGTATTTTACTATTTGGTACAAGACTTGAAATG
TTTAGTTTTTCACTCTTATTGGATTACACTTCAAGATTAAACCAATTTAAATTGTATGTTTTTTCAGGCTGTTTGTAT
ATTTAATTAAGGGATGGGAGGGGTATTGTTCATTTACAGTATTGGGGTTTTTATGAATGTGAAGCAAACAAAA
AAATTTGTATGTAACTGAAAATAAGAAAATACATTAGCAAGCTTAATGGTTATCCTTACTTGAGTCCACATGGG
TTGGACAGTCCCCACACACATTAAATTTCTGTAAATGAAAGCCACCTTTTGTAAAAATTTGCTCTAATAAAACAT
ACCAATCCTGGTTGCAGAGTAGTTTTTTTTGTTTTTCCAGGAGGCTATGTCTCTAATTCACTTTAGAGATAATAA
GAAATTGTTCTGGTAGATACATCCTGTGACAGAAGATACTTTAGGTGGAATATGTAGCCAGATTCCCATCCATG
AAAGGCAAGTGTAGATTGTCCCTTATTTCCCTTCATACATGATTGGATTTAATTTTGGGGGGCTTATACAAGGTCT
AGTTTTTTTTTACAGTTATGACAAACCCCTCAGGGATTATTCACATTTAAATATTTTTCAGTTACAAGCAGTGAGG
TCCTAAAGTGTTACAAGAGTACAGTCTACCCCATGTTAGGCATATCTTTGATTATGTCTTTATTCCCTTATTTTAC
AATGTATTTGGTGTGTAGGGGAGGGGGGAGAATAAATGAGTTTTTTCAGCTTTATAAATTGTTAAACATTTAGACA
AACATATATGTATGTATGAATGTACATAAATATTTTAACTCCTATTGACCACGAGTCTCACTTCAGTTTCCAG
TTCTTTTCAACCTCTTTCTGATAGATTTCTCTTTTCACTTTTAGTAACCATGTTCTTTGTTTCTTTTATTTC
TTCCATCTGAAGCCCCACTCTTAAAAAGTTGCACTGTTCCAGTAGTTATAATCCACTTGCCCTAGGAACAAGTTA
GCACTGAATTTTGGGTGGAATAATTAGTTTCTGAAGGCTTGCCAGGACCCCTGAGCAGGTAGGCTCTAGAGTCGG
GCAGTCCAATAACTTTTTTGCAATAATGGAAACGTCTTATGTGCAGTCCAATAGGGTAGCAACTGGCCAAATGAG
GCCTACTGATTACTTGAGGTGTGCCTTGATAACTGAATTTATGGTGCTATTTAAACAATTTTTTTCTAACGTGA
AAAGGATAAAACATAAAAAACTCTTGAGAACTATAAAGTGAACACCTATATGCCTACCCCTACCTAGATTCTATA
CTTAACATCTTTTTTACTGTAATATCTCTATTATAATAAATCTTGGTTTTTCACTTAACTGGTGTAATTGGTGCC
AATAAACTACTTTTTTTGTAGTGCTATTTAATTTTGATTAAATTTAGATAGCCACGTGTCTAGCGGCTACCGTTT
GGACAGTATAGCTCTAGAGCATGGCTTGGTAACCTGTTTGCCATGGAGCACTAGATGGTCCTTTTCACTCCTCAA
AATGCAIGCCCATTGCCCTTCAGGTTTGCCATGGAAAGTCAAATGATTTCCACTTCATTATGCAAGTACGCTATCA
TCTTCAGGTCTTTTGTATGTAAAATGTTTCTGTTCCAGTTGTAGACCTTGATGATTGTGCAGTATGAAATCGTAT
TGTAATTTTCTTGCAATTTAGATGTCAACCTCAGAAACAGGAACAATCGTCTTTTGAACCTCCAGTAGGCCCCACAG
TTGTTGGTTGTTCTTCAAACAGGTTGTGGCTCCTGTTGAATAAGATGATCCATTAATAAACTGAACAAGGTTGAG
GAGAAATAGTGCTTACGTTGAAAAATCTTTAAGTCTTTGTCCCCGTTCTCTAACTTCCTTACGTTTTTCGTTTATT
TAGCTCCATCCCCACTATCTACTAGAATTTCTCATATTTAAACCAAGATGGGAGACTAGGTCAATAGGAAAATAT
TACCGTCTACAATTTTCTTATACTTTGATCTGTCTTTTATTTGATTGTAAGTTGCTGATGGACAGTGATCATTAG
AAACTGAATTTTGTATAATACTAGTTTTATATGAAACTAGATATTTATTGCGCTCAGGTTATGTTTCTTTTACCT
CCTTCCTTAATAAAGAGACCACTTGAAAT

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FIGURE 1030

MAVASDFYLRYVVGHKGKFGHEFLEFEFRPDGKLRANNSNYKNDVMIRKEAYVHKSVMEELKRIIDDSEITKED
DALWPPPDRVGRQELEIVIGDEHISFTTSKIGSLIDVNQSKDPEGLRVFYLVQDLKCLVFSLIGLHFKIKPI

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FIGURE 1031

GTTGCCGCTGCGCACCTGGCTCAGGTGAGCTGCCCCGCCCCGCCCCGGCGCGAGCCCCAGGTCTGGCAGCAGCC
CCTGACCTGTCCAGGTGCCCTGTCCAGCTGACTGCAAGGACAGAGAGGAGTCCTGCCAGCTCTTGGATCAGTCT
GCTGGCCGAGGAGCCCGGTGGAGCCAGGGGTGACCCTGGAGCCAGCCTGCCCGAGGAGGCCCGGCTCAGAGC
CATGCCAGGTGTCTGTGATAGGGCCCTGACTTCCTCTCCCCGTCTGAAGACCAGGTGCTGAGGCCTGCCTTGGG
CAGCTCAGTGGCTCTGAACTGCACGGCTTGGGTAGTCTCTGGGCCCCACTGCTCCCTGCCTTCAGTCCAGTGGCT
GAAAGACGGGCTTCCATTGGGAATTGGGGGCCACTACAGCCTCCACGAGTACTCCTGGGTCAAGGCCAACCTGTC
AGAGGTGCTTGTGTCCAGTGTCTGGGGGTCAACGTGACCAGCACTGAAGTCTATGGGGCCTTCACCTGCTCCAT
CCAGAACATCAGCTTCTCCTCCTTCACTCTTCAGAGAGCTGGCCCTACAAGCCACGTGGCTGCGGTGCTGGCCTC
CCTCCTGGTCTGCTGGCCCTGCTGCTGGCCGCCCTGCTCTATGTCAAGTGCCGTCTCAACGTGCTGCTCTGGTA
CCAGGACGCGTATGGGGAGGTGGAGATAAACGACGGGAAGCTCTACGACGCCTACGTCTCCTACAGCGACTGCCC
CGAGGACCGCAAGTTCGTGAACTTCATCCTAAAGCCGAGCTGGAGCGGCGTCGGGGCTACAAGCTCTTCCTGGA
CGACCGCGACCTCCTGCCGCGCGCTGAGCCCTCCGCCGACCTCTTGGTGAACCTGAGCCGCTGCCGACGCCTCAT
CGTGGTGCTTTCGGACGCCTTCCTGAGCCGGGCCTGGTGACGCCACAGCTTCGGGAGGGCCTGTGCCGGCTGCT
GGAGCTCACCCGCAGACCCATCTTCATCACCTTCGAGGGCCAGAGGCGCGACCCGCGCACCCGGCGCTCCGCCT
GCTGCGCCAGCACCGCCACCTGGTGACCTTGCTGCTCTGGAGGCCCGGCTCCGTGACTCCTTCCTCCGATTTTG
GAAAGAAGTGCAGCTGGCGCTGCCGCGGAAGGTGCGGTACAGGCCGGTGGAAGGAGACCCCCAGACGCAGCTGCA
GGACGACAAGGACCCCATGCTGATTCTTCGAGGCCGAGTCCCTGAGGGCCGGGCCCTGGACTCAGAGGTGGACCC
GGACCTGAGGGCGACCTGGGTGTCCGGGGGCCTGTTTTTGGAGAGCCATCAGCTCCACCGCACACCAGTGGGGT
CTCGCTGGGAGAGAGCCGGAGCAGCGAAGTGGACGTCTCGGATCTCGGCTCGCGAACTACAGTGCCCGCACAGA
CTTCTACTGCCTGGTGTCCAAGGATGATATG**TAG**CTCCACCCCAGAGTGAGGATCATAGGGACAGCGGGGGCC
AGGGCAGCGGCGTCGCTCCTCTGCTCAACAGGACCACAACCCCTGCCAGCAGCCCTGGGACCCTGCCAGCAGCCC
TGGGAAAAGGCTGTGGCCTCAGGGCGCCTCCAGTGCCAGAAAATAAAGTCCTTTTGGATTCTGAAAAAAAAAA
AA

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FIGURE 1032

MPGVCDRAPDFLSPSEDQVLRPALGSSVALNCTAWVVSQWLDGLPLGIGGHYSLHEYSWVKANLS
EVLVSSVLGVNVTSTEVYGAFTCSIQNISSFTLQIRAGPTSHVAAVLASLLVLLALLAALLYVKRLNVLLWY
QDAYGEVEINDGKLYDAYVSYSDCPEDRKVFVNFILKPQLERRRGYKFLDDRDLIPRAEPSADLLVNLSCRRLI
VVLSDAFLSRAWCSHSFREGLCRLLELTRRPIFITFEGQRRDPAHPALRLLRQHRHLVTLWLWRPGSVTPSSDFW
KEVQLALPRKVRYRPVEGDPQTQLQDDKDPMLILRGRVPEGRALDSEVDPDPEGDLGVRGPVFGEPSAPPHTSGV
SLGESRSSEVDVSDLGSRNYSARTDFYCLVSKDDM

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FIGURE 1033

AGTCTTGCGGAGGTGACCAAAGCCACGTAATGTCCGTAGTTCGCTCATCCGTCCATGCCAGATGGATTGTGGGG
AAGGTGATTGGGACAAAAATGCAAAAGACTGCTAAAGTGAGAGTGACCAGGCTTGTTCTGGATCCCTATTTATTA
AAGTATTTTAATAAGCGGAAAACCTACTTTGCTCACGATGCCCTTCAGCAGTGCACAGTTGGGGATATTGTGCTT
CTCAGAGCTTTACCTGTTCCACGAGCAAAGCATGTGAAACATGAACTGGCTGAGATCGTTTTCAAAGTTGGAAAA
GTCATAGATCCAGTGACAGGAAAGCCCTGTGCTGGAACCTACCTACCTGGAGAGTCCGTTGAGTTCGGAAACCACC
CAGCTAAGCAAAAATCTGGAAGAAGCTCAATATCTCTTCAGCACAGTGAAGCGGGAGTGGAAGAAGGATCTAAAGG
GAAAACTGACATGTTTATGTTATGGAAAAAGAAATTTTTCTAAGTTTCATCACAACTGTGTCCAGTTTCTCTG
TGGTGTTTATGAAATAGCTAAAAGCAAATGAAGTAAAGGGCATACTATGGTTTTTCACAAAAAAAAAAAAAAAAAA

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FIGURE 1034

MSVVRSSVHARWIVGKVIGTKMQKTAKVRVTRLVLDPYLLKYFNKRKTYFAHDALQQCTVGDIVLLRALPVPRAK
HVKHELAEIVFKVGKVIDPVTGKPCAGTTYLESPLSSETTQLSKNLEELNISSAQ

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FIGURE 1035

GGCGCGCTTTCAAACGCTCAGGTTTCCTACCTTCGGCTGCTTGGGAACTTCTTTCTTGCCCGCCAAGCCCGCAG
CCACCCGGGCGCGGCGGGACTCCTAGACCCGGCGCTGCGATGAAGAGGACCCGCGACGAGGTGGATGCGACGCTG
CAGATCGCCAAGCTGAATGCGGCCGAGCTGCTGCCGGCGGTGCACTGCCCTGGGCTTCGGCCCTGGGGCCAGCGGC
GCTGCAGCCGGCGACTTCTGCCTGCTGGAGCTGGAGCCCACGCTGTGCCAGCAGCTGGAGGATGGACACAGTCTT
GTGATTCGTGGTGATAAAGACGAGCAAGCTGTGCTGTGCAGTAAAGACAAAACATACGACTTGAAGATAGCAGAC
ACTTCCAATATGTTGCTTTTCATTCTGTTGTAAAACCTCCGGACCAGTTGAAGAAGGAAGATTCACACTGTAAC
ATTATTCACACTGAGATCTTTGGTTTTCTAATAATTATTGGGAATTAAGAAGACGTAGACCCAAGTTAAAGAAG
CTAAAGAACTTTTGATGGAAAATCCATATGAAGGACCTGACAGTCAAAAAGAGAAGGATTCAAATAGCTCAAAA
TATACAACCTGAAGATTGCTTGATCAAATTCAGGCAAGTGAGGAAGAAAATAATGACCCAATTACAAGTTCTAAAT
GCCTGTAAGATTGGAGGTTATTGGAGGATTCTTGAATTTGATTATGAGATGAACTTCTGAATCATGTAACCTCAG
CTTGTTGGATTCTGAATCATGGTCTTTTGGTAAAGTTTCTTTGAACACATGCCTTCAGGAACCTCGGACCATTGGAG
CCAGAGGAAAATGATAGAACACTGTCTTAAATGTTATGGGAAGAAAATATGTAGATGAAGGCGAAGTTTATTTTGGAG
TTGGATGCTGATAAAATATGTAGAGCAGCAGCACGAATGCTACTTCAGAATGCGGTGAAATTCAATCTCGCTGAG
TTTCAAGAAGTGTTGGCAGCAGAGTGTTCTGAAGGAATGGTAACTAGTCTTGATCAGCTTAAGGGTTTTAGCGCTG
GTGGATAGACACTCGAGACCAGAAATCATATTTTTGCTGAAAGTAGATGATTTACCTGAGGATAATCAGGAACGT
TTTAATAGCCTTTTCTCTCTAAGGGAGAAGTGGACAGAAGAAGATATTGCTCCATATATTCAAGATTTGTGTGGA
GAGAAGCAAACCATAGGTGCATTACTACTAAATATTCTCGTTCTTCGATGCAAAATGGTGTTAAAGTTTATAAT
TCGAGAAGACCCATTTCTTAAAGAACAACAGTCTTTTCTTCAGGACTCAAGTTGCTTTATAAAGTTGCTGGATA
CAAGAAAAATAACTTGTACTTTTTATTCTGACTTTTAGAAACCTAGTCTTCTAAGGCATTTTTCTCCTCATCTTA
AGCATTTTGAACCTACTGTTATTTCTTAAATGTTATAGGATGTAGCTTTAAAATTATATTTGTACTATGTACACA
GTGTAAACAAGGACAAAAGAATTCTTTCTATATTATGTCTGAGGTCTCTATGATTTATTTAAAGTTTGGCTTTT
TATATTTAAAATGTCATTTCTTTACTTAGGATTTGATGTTCTAATCATTAACTAAGTTTTCCAGAGAACT
AAATAGTAATAGTTTCATAGAAGAGAACTATTTATTCACTTAAATATCATTCTCAAGTGAGTGAGTTCCCTCT
ACTTTTAGCCTTCCACCCAACTGGAAGCCTCTAGGTGCTATCAATTATTTATATCCATCGTTTACATCCATGAA
ATTGGCTGAATAATTACTCCTCTGCCTGGCGTAGACATGTGCTTTGGGAAAAAACGAGTTTATAATCCTATAAT
GAAGAATACTGGCACAGGCAATGCTCACTCGAAAACCTCAAGTAATTTCTAGTTGGTTTTGGAATGCTTGATAAA
GTTCCTTTACAGCTTTATTTTCTGATTTGTTTTGGTTTAGATCAAAGTTCAAATTAATTTTAACTTAGCTAATG
AACTCATCACCAGGACAGTTGGAGGGGGTAGGCCGAGGTTAAATGGTCCACGTTTCAAAAATGTTAATGGCTAAT
CCATAATTAAAGAAGTTTTAACTGTTACTGAAGTTTACAAGTTTTATTGTCATGAACATGAAATACAAACACGAT
GGCTTCGAAATGCTTTCAATAAATGTTTCTGCATTTAAAAAAAAAAAAAAAAAAAAA

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FIGURE 1036

MKRTRDEV DATLQIAKLNAEELLPAVHCLGFGPGASGAAAGDFCLLELEPTLCQQLEDGHS LVIRGDKDEQAVLC
SKDKTYDLKIADTSNMLLFIPGCKTPDQLKKEDSHCNIIHTEIFGFSNNYWELRRRRPKLKKLKKLLMENPYEGP
DSQKEKDSNSSKYTTEDLLDQIQASEEEIMTQLQVLNACKIGGYWRILEFDYEMKLLNHVTQLVDSESWFSGKVP
LNTCLQELGPLEPEEMIEHCLKCYGKKYVDEGEVYFELDADKICRAAARMLLQNAVKFNLAEFQEVWQQSVPEGM
VTSLDQLKGLALVDRHSRPEIIFLLKVDDLPEDNQERFNSLFSLEKWTEEDIAPYIQDLCGEKQTIGALLTKYS
RSSMQNGVKVYNSRRPIS

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FIGURE 1037

GAGTTTTCAATTTGTGGTGAGATTCTCTCCCAGGCCACAAGACATTTCTGCTCGGAACCTTGTTTACTAATTTCC
ACTGCTTTTAAGGCCCTGCACTGAAAATGCAAGCTCAGGCGCCGGTGGTCGTTGTGACCCAACCTGGAGTCGGTC
CCGGTCCGGCCCCCAGAACTCCAACCTGGCAGACAGGCATGTGTGACTGTTTCAGCGACTGCGGAGTCTGTCTCT
GTGGCACATTTTGTTCCTGTCCTTGGGTGTCAAGTTGCAGCTGATATGAATGAATGCTGTCTGTGTGGAACAA
GCGTCGCAATGAGGACTCTCTACAGGACCCGATATGGCATCCCTGGATCTATTTGTGATGACTATATGGCAACTC
TTTGCTGTCTCATTGTACTCTTTGCCAAATCAAGAGAGATATCAACAGAAGGAGAGCCATGCGTACTTTCTAAA
AACTGATGGTGAAAAGCTCTTACCGAAGCAACAAAATTCAGCAGACACCTCTTCAGCTTGAGTTCTTCACCATCT
TTTGCAACTGAAATATGATGGATATGCTTAAGTACAACCTGATGGCATGAAAAAATCAAATTTTGTATTATTAT
AAATGAATGTTGTCCCTGAACTTAGCTAAATGGTGCAACTTAGTTTCTCCTTGCTTTCATATTATCGAATTTCT
GGCTTATAAACTTTTTAAATTACATTTGAAATATAAACCAAATGAAATATTTTAACTGATAAAAAAAAAAAAAA
AAATAAAAAA

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FIGURE 1038

MQAQAPVVVTQPGVGPGPAPQNSNWQTGMCDCFSDCGVCLCGTFCFPCLGCQVAADMNECCLCGTSVAMRTLYR
TRYGIPGSICDDYMATLCCPHCTLQIKRDINRRRAMRTF

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FIGURE 1039

GGAAGAAAACCTGAAAAAGACCCCAAAGAAGAAT**ATG**AAAATGGTAACTGGAGCCGTAGCGTCGGTGCTGGAAGA
CGAGGCCACAGACACTTCTGATAGTGAAGGAAGCTGTGGATCGGAAAAGGACCACTTTTATTCTGATGATGACGC
AATAGAAGCTGACAGTGAGGGTGATGCTGAGCCCTGTGACAAAGAAAATGAAAATGATGGAGAATCAAGTGTTGG
GACTAATATGGGCTGGGCAGATGCTATGGCTAAAGTCCTCAACAAGAAAACCTCCTGAAAGTAAACCTACTATTCT
GGTCAAAAATAAGAAGCTGGAAGGAAAAAGAAAAGTTAAAGCAAGAAAGACTAGAGAAAATAAAACAGCGTGA
TAAGAGGCTGGAGTGGGAAATGATGTGCAGAGTAAAGCCAGATGTTGTCCAAGACAAAGAGACAGAGAGAAATCT
TCAGAGAATTGCAACAAGGGGTGTGGTGCAATTATTTAATGCTGTTTCAGAAACATCAAAAGAATGTTGATGAAAA
GGTTAAGGAAGCTGGAAGTTCTATGAGAAAGCGTGCTAAGTTGATATCAACTGTTTCCAAGAAAGATTTTCATCAG
TGTTTTGAGAGGGATGGATGGAAGTACAAATGAGACTGCTTCAAGCAGGAAGAAACCAAAAGCCAAACAGACTGA
AGTGAAATCAGAAGAAGGCCAGGTTGGACGATCCTACGTGATGATTTTCATGATGGGAGCATCTATGAAAGACTG
GGACAAGGAAAGTGATGGGCCAGATGACAGCAGACCAGAAATCTGCAAGTGACTCTGATACAT**TAA**AGCATCATAGG
AAATACAATTGCAGTCGTTTTATTTTTCTAGAAAAATATGTCATCCTCTGATAGTTGGGGAATTATAAGGATAC
CATTTGTAAGAAAGCCAAAAGACTTTTGCCAGATTTTCATATTTCCCTTTTCATGTACACTTTATATATACTTCA
TTAAATTATATTTTAAACCCTTGTATAATTTTAAGCATTGTTCCCTCAGAACATTTGTAAAAGGATATATTTCTG
CTTGACCAGCGAGATGTGCATTTTGCCAGGATCATATTGGTCATGTCTATTGGTGTATTATTTTCAGTATCACCAA
TGTTTTCAGAAATACAGTACTAATTCATCATTAAACTCTTTGAAGTTAATATTTTCTGCCTTCTAACTTATAGA
CTCAACTATGTATCTGTAGTTTTTGGGAATGGTTGGTGTTTTTTGCTTTGTGTTGGGAAGTTATTGAGAAAACCT
ATATAATAAAATTTAAAATTATAGTTTTTCAA

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FIGURE 1040

MKMVTGAVASVLEDEATDTSDSEGSCGSEKDHFYSDDDAIEADSEGDAEPCDKENENDGESSVGTNMGWADAMAK
VLNKKTPESKPTILVKNKKLEKEKEKLKQERLEKIKQRDKRLEWEMMCRVKPDVVQDKETERNLQRIATRGVVQL
FNAVQKHQKNVDEKVKEAGSSMRKRAKLISTVSKKDFISVLRGMDGSTNETASSRKKPKAKQTEVKSEEGPGWTI
LRDDFMMGASMKDWDKESDGPDDSRPESASDST

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FIGURE 1041

GCTGCCGCCCCGCACTCGGGCGAGCGCGGGAGCCGCACAGTAGACGGAGCGCGCCCGGCCGAGCGGGCCATGGCC
GCGGGGGCCGCCGCCGAGGTGGTGGCGCGCGGTGAGGAGAGCGCGCGCCCCCTCCGGGGCGGATGGAACGCGG
CTCGGCGGGCGGGCAGTGCCGGCGTCCGCGGCTGGAATGGTGTGGCTGTGTGGTGGTGCCTGCGTTCTGAAG
CCCGAGAGGAGCCACAATGAGAGACGCCGCCGCTGCCTCCCGCATGCACAAAGCAGGGTCATCAGAAGCCTCTCGA
TTCAAAAGATGATAATACCGAAAAACACTGCCAGTGACAGTGAATCCTTGGCATATGAAGAAAGCTTTCAAAGT
CATGAACGAATTAAGAAGTCAAAATTTGCTGTGCGATGTCACAATTGTGGCAGAAGACATGGAATTTCTGCTCA
TAGAGTGGTGTGGCCGCTGTAGTCCTTATTTTCATGCCATGTTTACAGGTGAGATGAGTGAGAGCCGAGCAAA
GAGAGTTAGAATAAAAGAGGTAGATGGCTGGACCCTGAGGATGCTAATTGATTATGTTTACACTGCAGAAATTCA
GGTTACAGAAGAAAATGTACAGGTACTTCTCCAGCAGCTGGTCTCTTACAGTTACAGGATGTGAAGAAGACTTG
TTGTGAATTTTTGGAATCCAGCTTCACCCGTGCAACTGCTTAGGAATCCGGGCTTTTGTGTATATGCATGCATG
TACTGACCTTCTGAACAAGGCCAACACCTATGCAGAGCAACATTTTGCAGATGTTGTACTTAGTGAAGAATTTCT
CAATCTTGGCATCGAACAAGTGTGCAGCTTAATCTCAAGTGACAACTTACCATTTCTTCAGAAGAGAAGGTATT
TGAAGCAGTAATAGCATGGGTGAACCATGACAAGGATGTGAGGCAAGAGTTTATGGCCGACTGATGGAACATGT
ACGGTTACCTTTGCTTCCTCGGAATATTTAGTTTACAGAGGTTGAAGAGGAAGCATTGGTCAAGAATAGCAGTGC
TTGCAAAGATTACCTCATTGAAGCAATGAAGTACCATTTGCTGCCAACAGAGCAGCGTATATTAATGAAGAGTGT
CCGGACCCGGCTGAGGACACCCATGAACCTTCCCAAATTGATGGTGGTGGTGGGGCCAAGCACCAAAGGCTAT
CCGGAGTGTGAATGCTATGACTTTAAAGAAGAAAGGTGGCACCAAGTAGCAGAGTTGCCTTCCAGGAGGTGCAG
GGCAGGCATGGTCTACATGGCTGGACTTGTTTTTGCTGTGGTGGCTTTAATGGCTCATTAAAGAGTTCGCACTGT
AGATTCCTACGACCCTGTGAAGGACCAGTGGACCAGCGTTGCTAACATGAGAGACCGGAGAAGCACTTTGGGAGC
TGCTGTGTTAAATGGATTATTATACGCTGTGGGAGGCTTTGATGGGAGTACAGGTTTGTCTGTGGAAGCATA
CAACATAAAGTCTAATGAGTGGTTTTCATGTAGCTCCCATGAATACAAGGAGGAGCAGTGTGGTGTGGGTGTTGT
TGGAGGTTTGTCTATGCTGTAGGAGGTTATGATGTAGCATCACGTCAGTGTCTTAGCACAGTAGAATGCTATAA
TGCTACAACAAATGAGTGGACCTATATAGCAGAAATGAGCACCAGGCGGAGTGGAGCAGGTGTTGGTGTGTTAA
CAATTTATTGTATGCTGTAGGAGGTATGATGGCCCTTTAGTACGAAAAAGTGTGAAGTATATGATCCCACCAC
TAACGCATGGAGACAGGTTGCAGATATGAACATGTGCAGAAGAAATGCAGGAGTTTGTGCAGTTAATGGTCTGTT
ATATGTTGTTGGAGGGGATGATGGTTTCTGTAACCTTGGCGTCAGTAGAATATTATAACCAACAACCGATAAATG
GACAGTTGTGTATCGTGTATGAGCACAGGGAGAAGTTATGCAGGGGTCACAGTTATTGATAAACGATTATGAGC
CTGAAGGACATTTTCAGCATATTTATACATGAGAAACAGCCTTCAACAAGTATTTGTGAAGTGAAGTGAAGTCTA
GCACTTCTCCACTTGTAGCTGCACCTTTAAGTCTCAGCAGAAGATACGATCGTCTGCCTTTATAGGCCTCAGATAC
TGAAGATTATTTTTGGTAGAAGCACCGGTAGGCTTTTCTGCAATGAGCAGCAGCTGACTGAATTTTCATAAGA
AACTTGACTGCAGGACTTAATCTGTAGTCTTTAGACAACAGTTGCTTTCATAAAGACTAGTTCTTATCAACCTT
GAATGACTACAGATTATTTTGTGAAGGAGGATGAAGTAATGTGTGTTCTTGTAATAAATTAATTTTATCTTTATTT
CTTCTAAAAATCTGTATACCAGGAACCTGAAAATCTTTGAACAGATATTAAATCTACGTAAGTATACAACTAGT
TGAGGGATACACTGTTTGCTTTTATAAAATAACTTTGATTACATGAATATAATAAATTATGTGCATATAAATGTG
TGTCTATATGCTTTTCTTTAAATATGTTTGAAGAGATGTTTGAACCTTGATTATACTATTTATAATTGGCACAGT
ACTTTGAATTATGCCAGTACTACATTGTAAAACAGAGTTGATTTTTTGTATTTTAAACATGCTTAACACTTTAA
ATGCCACTTCTGAGGAATGGACCTGGTGTAAACACACTTGAATATGTGTGATGCCAACTTTTTTAAATACAATAT
AAGTTATGCTTATTTATTTTCTTTAGTTTAACTTGGTCATGTTTTGGTGTGTATTTTAAATTTTTTCTTA
AATTAACACTTTGGCATGAACATTACTGCAGGTTTTTGTATGAATATAATGAATGTATGGAATTCAATTGAATTTG
CATGGTCTTCGGAATTTTTTCTGTGTGTATAAATTTAGCTGCTATTAACAGAAGAGAGAACTTTCTGTGAGTAGC
CATGTGTGTTGATCAGATACAGTTTTTCTGAGATCTTCAATTAATCTCACTTTAAAAATGACCAAAACATGTCTT
TCTTGAATTAACCTTGAATAAAAGTTTTGTATATTAAAAAAGAAAAAAGAAAAAAGAAAAAAGAAAAA
AAAAA

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FIGURE 1042

METPPLPPACTKQGHQKPLDSKDDNTEKHCPVTVNPWHMKKAFKVMNELRSQNLLCDVTIVAEDMEISAHRVVLA
ACSPYFHAMFTGEMSESRKRVRIKEVDGWTLRMLIDYVYTAEIQVTEENVQVLLPAAGLLQLQDVKKTCCEFLE
SQLHPVNCGLGIRAFADMHACTDLLNKANTYAEQHFADVVLSEEFNLGIEQVCSLISSDKLTISSEEKVF EAVIA
WVNHDKDVRQEFMARLMEHVRLPLLPREYLVQRVEEEALVKNSSACKDYLI EAMKYHLLPTEQRILMKSVRTRLR
TPMNLPKLMVVVGGQAPKAIRSV ECYDFKEERWHQVAELPSRRCRAGMVY MAGLVFAVGGFNGSLRVRTVDSYDP
VKDQWTSVANMRDRRSTLGAAVLNGLLYAVGGFDGSTGLSSVEAYNIKSNEWFHVAPMNTRRSSVG VGVVGGLLY
AVGGYDVASRQCLSTVECYNATTNEWYIAEMSTRSGAGVGV LNNLLYAVGGHDG PLVRKSVEVYDPTTNAWRQ
VADMNMCRRNAGVCAVNGLLYVVGDDGSCNLASVEYYNPTTDKWTVVSSCMSTGRSYAGVTVIDKRL

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FIGURE 1043

AGAAATCAACTGCTTAGCCGGGTGTTAGGAGGATCTGATGAGACTAGGATGTGAGTTGAAACTGCTGTGCCAGG
CACACCTGTGTGGGTCTCACTTGTGCCAGGCATACCTGCGTGGGTCTCACCTGTGTAGGTCTCACCTGTGCCAGG
TGTACCTGTGTGGGTCTTACCTGTGCAGGTCTCCTGATGCAGGTCTCACCTGTGCCGAGTGTACCTACCTGTGCG
GGTCTCACCTGTGTGAGGCGTACGTGTAGGGGTCTCACCTGTGAACGTCTCACCTGTGCCAGGTGTATACCTGTG
TGGCTCTCACTTGTGTGGGTCTGGTATGTGACAAAGGCCTGGGAATTGGCAGCTGTATCTGCCAGGAGCAGACC
CTGAGCCAAGTTCCCTGTGCCTTAGGCTCATTTTCATGCCCTCAGCTCTGGGAGGCCAATCCCTTTACTGCCACAT
TTTATAAATGGAAGACTGAGGTTAAGCAGTGGGCCCAGGGCCATAGAACAGCTGAGCTGTGGAGCTGGACATCGA
CCTTGGGCAGGTGCTGCCAGGGGCTGAGCCCAGGCCCTCCACTCCCGCATCCTCTGATGACCCATCCTGGGTGA
GTGGAGGCATCTGCCCCGCCAGTCAGGCCAGTGGTGAATGGCCCCCATGCCACAGGACAGAAGCTGCTGGACT
CACTGGCAGAGACCTGGGACTTCTTCTTTCAGTGACGTGCTGCCCCATGCTGCAGGCCATCTTCTACCCGGTGCAGG
GCAAGGAGCCATCGGTGCGCCAGCTGGCCCTGCTGCACTTCCGGAATGCCATCACCCCTCAGTGTGAAGCTAGAGG
ATGCGCTGGCCCCGGGCCCCATGCCCCGCTGCCCCCTGCCATCGTGCAGATGCTGCTGGTGCTGCAGGGGGTACATG
AGTCCAGGGGCGTGACTGAGGACTACCTGCGCCTGGAGACGCTGGTCCAGAAGGTGGTGTCGCCATACCTGGGCA
CCTACGGCCTCCACTCCAGCGAGGGGGCCCTTACCCATTCTGTCATCCTGGAAAAGCGCCTCCTCCGCCGCTCCC
GCTCGGGGGACGTGCTGGCCAAGAACCCTGTGGTGCGCTCCAAGAGCTACAACACGCCCTCTGCTGAACCCCGTGC
AGGAGCACGAGGCGGAGGGCGCGGCGGCCGGCGGTACCAGCATCCGCTGGCACTCTGTGTGCGGAGATGACGTCTT
GCCCCGAGCCTCAGGGCTTCTCCGACCCGCCCGGCCAGGGCCCCACCGGGACCTTCAGGTCTTCCCGGCGCCCC
ACTCAGGGCCCTGCCCCAGCAGACTGTACCCACGACCCAGCCCCCTGAGCAGGGCTTGGATCCACCCGCAGCT
CCCTGCCCCGCTCCAGCCCGGAGAACCTGGTGGACCAGATCCTGGAGTCCGTGGACTCGGATTCTGAAGGGATTT
TCATTGACTTTGGCCGGGGCCGGGGCTCTGGCATGTCCGACTTGGAGGGCTCTGGGGCCGGCAGAGTGTCTGTG
GAGGCCTCACAGCTGGCCTTGAGTTTTTACTGACACGTCCCTGTGTGCGGGGTGTCCATGTGGCGTGTGTGTGA
GTGAGACTTTTTTACTGCGTCCCGTCCCGCCAGCCCTGTGCGCCTCGTCACTGGCCTTGGTCACTTTGTATTTCT
GTCTTGGTTGAAATACCATCAGCCTTCCTTGCTCGGCCAGGTCTGTTTCAGGCATCTGAGTCAGCGTTTACCC
AGGGGCCGGGCCAGAGACGGGGCCGGCCGCTCGCTCCACGCTCCTCCTGCCCCAGCCCTCTGGTGTCCACACC
TGCCACAGAGAATGTAAACCCAGTGGGCTCTGCCACGCGGGCCCCAAAGTGACCAGACTCCAGCACACCTGT
CTCCTCCTGCCTGGGGTGGCCATGGGGATGGAAGGGGGTGAATAAAACCTGTCAACCTGAAAAAAAAAAAAAA
AAAAAA

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FIGURE 1044

MAPMPTGQKLDSLAETWDFFFSDVLPMLQAIFYPVQGKEPSVRQLALLHFRNAITLSVKLEDALARAHARVPPA
IVQMLLVLQGVHESRGVTEGYLRLETLVQKVSPYLGTYGLHSSEGPFTHSCILEKRLRRRSRGDVLAKNPVVR
SKSYNTPLLNPVQEHEAEGAAAGGTSIRWHSVSEMTSCPEPQGFSDPPGQGPTGTFRSSPAPHSGPCPSRLYPTT
QPPEQGLDFTRSSLPRSSPENLVDQILESVDSDSEGIFFIDFGRGRGSGMSDLEGSGGRQSVV

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FIGURE 1045

TGTCAAAAGCCTGCACACGAGACCCCCGTGGGCCAGGACTGACTTCCTCCCCACACAGGGCTGGGCGGGGCAAGC
AGGAAGGAGCCTGTTACAGTCAAGGTGACGCATCCTTGCCGGGGCCAGCCCGAACAGCAGCTGGGTGCGCAAGCGA
CAGGAGCACGGGTTCATCTTTTCCCCAGAGGCGTCGGAATGGACCTGTGCCACCCAGAGCCCGCGGAGCTGAGCAG
CGGGGAGACGGAAGAGTTACAGAGGATCAAGTGGCACCCGAAAGCAGCTCCTGGAGGACATCCAGAAGCTGAAGGA
TGAGATTGCAGATGTGTTTGCCCAAATCGACTGCTTCGAGAGTGCGGAGGAGAGCCGGATGGCCAGAAGGAGAA
GGAGCTGTGTATTGGGCGCAAGAAGTTCAACATGGACCCCGCCAAGGGTATCCAGTATTTTATTGAGCACAAAGCT
GCTGACCCCTGACGTCCAGGACATTGCACGGTTCTGTATAAAGGCGAGGGCCTCAACAAGACAGCCATTGGTAC
CTACCTGGGGGAGAGGGATCCCATCAACCTGCAGGTCTCCAGGCCTTCGTGGACTGCCACGAGTTCGCCAACCT
CAACCTCGTCCAGGCCCTCAGGCAGTTCTGTGGAGCTTCCGGCTGCCGGGCGAGGCCCAGAAGATAGACCGGAT
GATGGAGGCCCTTTGCCACTCGATACTGCCTCTGCAACCCAGGCGTCTTCCAGTCCACAGACACCTGCTACGTGTT
GTCCTTCTCCATCATCATGCTCAACACCAGCCTCCACAATCCCAACGTCCGGGACAGGCCGCCTTTTCGAGCGCTT
TGTGTCCATGAACCGCGGCATCAACAATGGTAGCGACCTGCCCCGAGGACCAGCTGCGGAACCTCTTCGACAGCAT
CAAGAGTGAGCCATTCTCCATCCCTGAGGACGACGGCAATGACCTCACTCACACCTTCTTCAATCCAGACCGGGA
GGGTTGGCTGCTCAAGCTAGGGGGCCGCGTGAAGACGTGGAAACGGCGCTGGTTCATCCTGACCGACAACCTGCCT
CTACTACTTCGAGTTCACCACTGACAAGGAGCCACGGGGAATTATACCTCTTGAGAACCTCTCGGTGCAGAAGGT
GGATGACCCCAAGAAGCCATTCTGCCTGGAGCTCTACAACCTTAGCTGCCGAGGCCAGAAAATCAAGGCCTGCAA
GACCGATGGCGACGGCAGGGTGGTGGAGGGCAAGCACGAATCGTACCGCATCTCAGCCACCAGTGCCGAGGAACG
TGACCAGTGGATCGAGTCCATCCGAGCCAGCATCACCCGTGTCCCCTTCTACGACCTGGTCTCTACTCGGAAGAA
GAAGATTGCCAGCAAGCAGTGAGATTCTTGGAGGTGGCACTGGGGGCTGGTACCCTGAGAGTCCCATCGCCTGC
AGCACCTGGAGACCCACCTCCACCCCACTGCACCTCTTTGGGCCACAGACATCATTGCTGTTCCCCGTTACCTC
GAGCTGACTCTAGAGGGGAAGGCAGAGCTCAGGAGGGTGGGTGGGAGCTGCAGTGGGCTCAGAGTCCAGCAATGA
GGCCCCCTGGCCTGGGCACCCAGCTGCAGGCCCTGCCCTACGTGCACTACAGGAAGGGGTGAGGAGAGCAGCCA
GAGGAAAACCAGCCCCAGAATGCTGCAACTTCTCTTCTCTGGACTTCGGTGTCTCGGCTCTGAAGGCGCTCT
CTGCACTTAGATGCTGTGAGCCCTCAACGTAGGAGGGGCCGTGGGGTCCCTAAGTGATTCTTCTCCCTGGCAAGG
CTCTTCCCTTTTCAGGGATATCTCTGCCAACCTTCCCCCTGTCTCGGGTGGGCTGGGCCCTCTCTGCCTGAGAG
AGCTCAGCACACACAGCTCAGACCCACGGACAGGACCCCGGGACAGAACCCCGGGAGCACTGCCCTAGGAGCC
TGGACCCACAGAGCTCAGTCCAGCTCTGCCTCTGACTCGCTGTGTACCCTCTGCCAAGTCATGCCATTCTCTA
GTTCTTGCAAACTGCAGTGTTTGGACTAGAAACGTATTGGCCCCTGCTAGCCCTGTGCTCCAGCTTCCAGCTGG
AGATGGCAGCCGTTATTTGCGGAGCCAGGCTGACTCCGGATTCAACGTTGCTGGGGAGAGAAAAGCAGTATAGA
CTCCACCTTCCAGGATGTCCATTTGCGGGAGAGGAGCAGGTGGGACCCTCAAGAAAATGACGGAGAACATCCAG
ACAGATGGGACTCAAGCAGGATGGGTGCTATATCCAAGAAGCCAAGAAGGGAGAGTTTCGTGCACTGTGGTTAAC
AGGAGGGCCGCTGGAGGCAGTGGCTGAGCCAGAAAGTAACACAGAGCTCATGCTTGGAGAGATAGAGTCTTGGC
CATGGCTTTCTGCAAGACCACTGACGAGCAGTCCCATGGTGATAAAGGGCAGCCCGGCGGGTCCAGCATCTCG
AGACCTCTGCAGAAGTATTATCAGAGTAGAGCTGACTTCCAGTACCCGGGCAGCCAGCTCTGTCTCCAGGGAGG
CCTGGCCTGGAGGAGGAGTCCACTAACAGGAAACACTTCTCACCCCTCACACAGGCCCAGGGGAGCCCTGGAG
GGAAATTCCTTGGCAGGGGAACAGGAAATGTGGTCGCCTCTGCCCCACTGCCAGCCTGAGTGGGCAAGGAAGCAG
GTGGATCCCCCAGAAGGAACCGCAGCTCGCGAGGCACCTCTCCTCGTCCCCACCCACCCACATTTCACACCT
TCCACAGGGTCAGGATGGAGTAGCTGCCTTGCAGGGTGGTGAGACTCCTGTCTCTGGAGGTCTGCAAGCACTGGT
AGTGATATTGCAGCAGACAAGGTCTGGGTGGGCGTCTGCAGGAGGAGACCTTGTGGGACATCTGAGGACATCCG
CAGATTCTTGTGAGCCTGTGAAGTAGGCCCTGCCTCTGTACCTCATTGGTCCATGAAGGAGCAGCCAGGGGTGG
TGGAAGGAGCACTGGGCTAGGGGTGAGGGGTGAGAGATTCTGTCTCTGCTCTGGGATGCACTGGCTACTCCCTTA
GTCTACTCCCTTCCCCCTCTCTGGTCTCTAGCTTCTCCATCATGGAGGAGATGGGATCATGGATTTTCTGGGCAT
AAGTGGCTGTTCTGGGAGTCATTCCAAAGAGAGAATAAACTCCTGATCCAAAAAAAAAAAAAAAAAAAAA

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FIGURE 1046

MDLCHPEPAELSSGETEELQRIKWHRKQLLEDIQKDKDEIADVFAQIDCFESAEESRMAQKEKELCIGRKKFNMD
PAKGIQYFIEHKLLTPDVQDIARFLYKGEGLNKTAIGTYLGERDPINLQVLQAFVDCHEFANLNLVQALRQFLWS
FRLPGEAQKIDRMMEAFATRYCLCNPGVFQSTDTCYVLSFSIIMLNTSLHNPVNDRPPFERFVSMNRGINNGSD
LPEDQLRNLFDSIKSEPFSSIPEDDGNDLTHTFNPDREGWLLKLGGRVKTKRRWFILTDNCLYYFEFTTDKEPR
GIIPLENLSVQKVDDPKKPFCELYNPSCRGQKIKACKTDGDGRVVEGKHESYRISATSAEERDQWIESIRASIT
RVPFYDLVSTRKKKIASKQ

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FIGURE 1047

GTGTTTTCTGCGTGAGAGGAAAAGATGCTAGAACCACAGGAGAATGGCGTGATTGACCTACCAGATTATGAGCAT
GTAGAAGATGAAACTTTTCTCCTTTCCACCTCCAGCCTCTCCAGAGAGACAAGATGGTGAAGGAACTGAGCCT
GATGAAGAGTCAGGAAATGGAGCACCTGTTCTGTACCTCCAAAGAGAACAGTTAAAAGAAATATACCCAAGCTG
GATGCTCAGAGATTAATTTTCAGAGAGAGGACTTCCAGCCTTAAGGCATGTATTTGATAAGGCAAAATTCAAAGGT
AAAGGTCATGAGGCTGAAGACTTGAAGATGCTAATCAGACACATGGAGCACTGGGCACATAGGCTATTCCCTAAA
CTGCAGTTTGAGGATTTTATTGACAGAGTTGAATACCTGGGAAGTAAAAAGGAAGTTCAGACCTGTTTAAACGA
ATTGCACTTGATCTCCCTATTTTACATGAAGATTTTGTTAGCAATAATGATGAAGTTGCGGAGAATAATGAACAT
GATGTCACTTCTACTGAATTAGATCCCTTTCTGACAACTTATCTGAAAGTGAGATGTTTGCTTCTGAGTTAAGT
AGAAGCCTAACAGAAGAGCAACAACGAAGAATTGAGAGAAATAAACAACTGGCCTTGGAAGAAGGCAGGCAAAG
CTGCTGAGTAATAGTCAGACCCTAGGAAATGATATGTTAATGAATACACCCAGGGCACACACGGTTGAAGAGGTT
AATACTGATGAGGATCAAAGGAGGAGTCAAATGGATTAAACGAAGACATTCTGGACAATCCATGTAATGATGCT
ATTGCCAATACTTTAAATGAAGAGGAAACACTGCTGGACCAGTCTTTTAAAAATGTGCAACAGCAACTTGATGCT
ACATCCAGAAATATTACTGAAGCTAGATTAAGTTTTCCATTAAAGAGAAAATGTATCTGTTAAGTCATCGTCTGCAA
GCTTGGCGTTACTATGTATTTTTTCTTCTTGAGTGAAAATCCTTAGATAGTAAACTGTTATAGATTATTGTTT
AAAAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 1048

MLEPQENGVIDLPDYEHVEDETFPPFPPPPASPERQDGEGTEPDEESGNGAPVPVPPKRTVKNIPKLDAQRLISE
RGLPALRHVFDKAKFKGKGHEADLKMLIRHMEHWAHRLF PKLQFEDFIDRVEYLGSKKEVQTCLKRIRLDLPIL
HEDFVSNNDEVAENNEHDTVSTELDPFLTNLSESEMFASELSRSLTEEQQORRIERNKQLALERRQAKLLSNSQTL
GNDMLMNTPRAHTVEEVNTDEDQKEESNGLNEDILDNPCNDIAIANTLNEEETLLDQSFKNVQQQLDATSRNITEA
R

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FIGURE 1049A

CGCTCGGAAAGTTTCAGCATGCAGGAAGTTTGGGGAGAGCTCGGCGATTAGCACAGCGACCCGGGCCAGCGCAGGG
CGAGCGCAGGCGGCGAGAGCGCAGGGCGGCGCGGCGTTCGGTCCCGGGAGCAGAACCCGGCTTTTTCTTGGAGCGA
CGCTGTCTCTAGTCGCTGATCCCAAATGACCGGCTCATCTTTGTCTACACTCTAATCTGCGCAAACCTTTTGCAG
CTGTCTGGGACACTTCTGCAACCCCGCAGAGCGCATCCATCAAAGCTTTGCGCAACGCCAACCTCAGGCGAGATGA
GAGCAATCACCTCACAGACTTGTACCGAAGAGATGAGACCATCCAGGTGAAAGGAAACGGCTACGTGCAGAGTCC
TAGATTCCCGAACAGCTACCCAGGAACCTGCTCCTGACATGGCGGCTTCACTCTCAGGAGAATACACGGATACA
GCTAGTGTGTTGACAATCAGTTTGGATTAGAGGAAGCAGAAAATGATATCTGTAGGTATGATTTTGTGGAAGTTGA
AGATATATCCGAAACCAGTACCATTATTAGAGGACGATGGTGTGGACACAAGGAAGTTCCCTCCAAGGATAAAATC
AAGAACGAACCAAAATTAATACATTCAAGTCCGATGACTACTTTGTGGCTAAACCTGGATTCAAGATTTATTA
TTCTTTGTCTGGAAGATTTCCAACCCGCAGCAGCTTCAGAGACCAACTGGGAATCTGTGACAAGCTCTATTTTCAGG
GGTATCCTATAACTCTCCATCAGTAACGGATCCCACTCTGATTGCGGATGCTCTGGACAAAAAATTGCAGAATT
TGATACAGTGGAAAGATCTGCTCAAGTACTTCAATCCAGAGTCATGGCAAGAAGATCTTGAGAATATGTATCTGGA
CACCCCTCGGTATCGAGGCAGGTCATACCATGACCGGAAGTCAAAAAGTTGACCTGGATAGGCTCAATGATGATGC
CAAGCGTTACAGTTGCACTCCAGGAATTACTCGGTCAATATAAGAGAAGAGCTGAAGTTGGCCAATGTGGTCTT
CTTTCCACGTTGCCCTCTCGTGCAGCGCTGTGGAGGAAATTGTGGCTGTGGAAGTGTCAACTGGAGGTCCTGCAC
ATGCAATTCAGGGAAAACCGTGAAAAAGTATCATGAGGTATTACAGTTTGGAGCTGGCCACATCAAGAGGAGGGG
TAGAGCTAAGACCATGGCTCTAGTTGACATCCAGTTGGATCACCATGAACGATGTGATTGTATCTGCAGCTCAAG
ACCACCTCGATTAAGAGAATGTGCACATCCTTACATTAAGCCTGAAAGAACCTTTAGTTTAAAGGAGGGTGAGATAA
GAGACCCCTTTTCTACCAGCAACCAAACTTACTACTAGCCTGCAATGCAATGAACACAAGTGGTTGCTGAGTCTC
AGCCTTGCTTTGTTAATGCCATGGCAAGTAGAAAGGTATATCATCAACTTCTATACCTAAGAATATAGGATTGCA
TTTAATAATAGTGTGTTGAGGTTATATATGCACAAACACACAGAAATATATTCATGTCTATGTGTATATAGATC
AAATGTTTTTTTTTGGTATATATAACCAGGTACACCAGAGCTTACATATGTTTGGAGTTAGACTCTTAAATCCTTT
GCCAAAATAAGGGATGGTCAAATATATGAAACATGTCTTTAGAAAATTTAGGAGATAAATTTATTTTTAAATTTT
GAAACACAAAACAATTTTGAATCTTGCTCTCTTAAAGAAAGCATCTTGTATATTAAAAATCAAAGATGAGGCTT
TCTTACATATACATCTTAGTTGATTATTAAGAAAGGAAAAATATGGTTTCCAGAGAAAAGGCCAATACCTAAGCA
TTTTTTCCATGAGAAGCACTGCATACCTTACCTATGTGGACTATAATAACCTGTCTCCAAAACCATGCCATAATAA
TATAAGTGCTTTAGAAATTAATCATTGTGTTTTTTATGCATTTTGTCTGAGGCATGCTTATTCATTTAACACCTA
TCTCAAAAACCTTACTTAGAAGTTTTTTTATTATAGTCTTACAAAAGACAATGTATAAGCTGTAACAGAATTTTGA
ATTGTTTTTCTTTGCAAAACCCCTCCACAAAAGCAAATCCTTTCAAGAATGGCATGGGCATTCTGTATGAACCTT
TCCAGATGGTGTTCAGTGAAAGATGTGGGTAGTTGAGAACTTAAAAAGTGAACATTGAAACATCGACGTAACCTGG
AAATTAGGTGGGATATTTGATAGGATCCATATCTAATAATGGATTGGAACCTCTCCAACTACACCAATTAATTTA
ATGTATCTTGCTTTTGTGTTCCCGTCTTTTTGAAATATAGACATGGATTATAATGGCATTATTTATTTGGCAGG
CCATCATAGATTATTTACAACCTAAAAGCTTTTGTGTATCAAAAAATCACATTTTATTAATGTAAATTTCTAAT
CGTATACTTGCTCACTGTTCTGATTTCTGTTTCTGAACCAAGTAAATCAGTCTTAGAGGCTATGGTTCTTAAT
CTATGGAGCTTGCTTTAAGAAGCCAGTTGTCAATTGTGGTAACACAAGTTTGGCCCTGCTGTCCTACTGTTTAAT
AGAAAACCTGTTTTACATTGGTTAATGGTATTTAGAGTAATTTTTTCTCTCTGCTCCTTTGTGTCTGTTTTAAAG
GAGACTAACTCCAGGAGTAGGAAATGATTATCATCTCTCCAAAGCAAGAGGCTTAAGAGAGAAACACCGAAATTC
AGATAGCTCAGGGACTGCTAACAGAGAACTACATTTTTTCTTATTGCCTTGAAAGTTAAAAGGAAAGCAGATTTT
TTCAGTGACTTTGTGGTCTACTAACTACAACAGTTTGGGTGACAGGGCTGGTAAAGTCCAGTGTTAGATGAG
TGACCTAAATATACTTAGATTTCTAAGTATGGTGCTCTCAGGTCCAAGTTCAACTATTCTTAAGCAGTGCAATTC
TTCCAGTTATTTGAGATGAAAGATCTCTGCTTATTGAAGATGTACCTTCTAAAACTTTCTTAAAGTGTCTGAT
GTTTTTACTCAAGAGGGGAGTGGTAAAATTAATACTCTATTGTTCAATTCTCTAAAAATCCCAGAACACAATCAG
AAATAGCTCAGGCAGACACTAATAATTAAGAAGCTCTTCTCTTCATAACTGCTTTGCAAGTTTCTGTGAAAA
CATCAGTTTCTGTACCAAAGTCAAAATGAACGTTACATCACTCTAACCTGAACAGCTCACAAATGTAGCTGTAAA
TATAAAAAATGAGAGTGTTCTACCCAGTTTTCAATAAACCTTCCAGGCTGCAATAACCAGCAAGTTTTTCAAGTTA
AAGCCCTATCTGCATTTTATTTATTAGCTGAAATGTAAGCAGGCATATTCACCTCACTTTTCTTTGCCTTTCTT
GAGAGTTTTTATTAACCTTCTCCCTTGTTACCTGTTATCTTTTGCACTTCTAACATGTAGCCAATAAATCTATT
TGATAGCCATCAAAGGAATAAAAAGCTGGCCGTACAAATTACATTTCAAAACAAACCTTAATAATCCACATTTT

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FIGURE 1049B

CGCATGGCTCATTACCTGGAATAATGCCTTTTATTGAATATGTTCTTATAGGGCAAAACACTTTCATAAGTAGA
GTTTTTATGTTTTTGTTCATATCGGTAACATGCAGCTTTTTCCTCTCATAGCATTTTCTATAGCGAATGTAATA
TGCCTCTTATCTTCATGAAAAATAAATATTGCTTTTGAACAAAAAAAAAAAAAAAAAAAAA

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FIGURE 1050

MHRLIFVYTLICANFCSCRDTSATPQSASIKALRNANLRRDESNHLTDLYRRDETIQVKGNQYVQSPRFPNSYPR
NLLLTWRLHSQENTRIQLVFDNQFGLEEAENDICRYDFVEVEDISETSTIIRGRWCGHKEVPPRIKSRTNQIKIT
FKSDDYFVAKPGFKIYYSLLEDFQAAASETNWESVTSSISGVSYNPSVTDPTLIADALDKKIAEFDTVEDLLK
YFNPESWQEDLENMYLDTPRYRGRSYHDRKSKVDLDRLNDDAKRYSCTPRNYSVNIREELKLANVVFFPRCLLVQ
RCGGNCGCGTVNWRSCTCNSGKTVKKYHEVLQFEPGHIKRRGRAKTMALVDIQLDHHERCDCICSSRPPR

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FIGURE 1051

AGTCGCTGTTTGGGACGCTGGGTGTGCGGTGTTCTGTCTCCGCTCCCGTTTCGCTGTACAGCCCGTTCCCTCCC
GGAGCCCGGGACAGGCTGGGCGCGCGCCCGTGTGAGTGAGCGGGACTCAGGGCAGAAGTGTCCTCACTGCGTT
TTTTTTTCTTTTATCCAAAGAACGGGGCAGTTAGTAGCCTTGCCCTTCTGTGCGCCCGTTGGGAGCGGGGTTGG
TGTGCGGAGTGGTTCGCCTTTTTTTCTTTAGAACTTGTGAGCCTTTTTTTTTTTTTTTTTTTTTCTTTCTTTTTTT
AGGCTCAGTGCTGTCCGGGCTGGTTTGCCCGGTCCCTGACTAACGGCTTTCTGCCCCCTTCTCTCGCCACCCCTGC
CCAAGGTCGCCCCCTGTGCTTCGCCCCCTGTCCCGGGAGGGTGGGAAGCTTTGACCCCGCCCTGCCACTCGCGTC
TCCGCAGCCGTAGCCGCGCCTGTCCCAATATGAATAGGGTCAACGACCCACTTATTTTTATAAGAGATATTAAGC
CCGGACTGAAAACTTAAATGTCGTCTTTATTGTCTGGAGATAGGACGCGTGACCAAAACCAAGACGGCCATG
AAGTGAGATCGTGCAAAGTAGCAGATAAAACGGGCAGCATCACTATTCCGTGTGGGATGAGATCGGAGGTCTTA
TACAGCCAGGGGATATTATTCGGTTGACCAGAGGGTATGCATCCATGTGAAAGGATGTCTGACACTTTATACTG
GAAGGGGTGGTGAACCTTCAAAAAATTGGGGATCTAGGTGCGGTGCAGGCAGCCGCAATGCGAGATTCCATACACT
ACTACCCTGGTAATGATCTCCACCCTGACCTGGAGGAGCCATCCTCTCTAGGGGTGTAAGATTTTGTATGGTTTA
TTCAGAAAGTGCCAAATTTCACTGAACCCAACCCAGATTATCGAGGACAGCAGAACAAGGGGCACAGAGTGAACA
GAAGAATAATTCCATGAATAGTAATATGGGTACAGGTACATTTGGACCAGTGGGAAATGGTGTTCACACTGGCCC
TGAATCAAGGGAACACCAGTTTTACATGCTGGCAGAAGCAATGGCCGGGGACTTATAAATCCACAACCTACAAGG
AACAGCTAGTAATCAAACAGTGATGACCACAATAAGTAATGGCAGGGACCCCTCGGAGAGCCTTTAAAGATGACC
TATGCTAAATACTCATGTGTAGTTTTTATACTACATGCCCTACTTGAACACTTATTGCACTTTTATTTATTGTTA
ACTGTGAAAAGTACGTCTTTTATTGGGTTTCTTTTATATTCTTGGTTTGTTAAGAAGAATGGTTTGTTTTTATA
GCAAACTGTTAAGCTGCTCGAGTCTCCTGTTGAAGAATGGGAACACTGAAAAGTAGGGGCATTTATTTTTAGAG
TAAAAAGATTATTGGATAGCCTTTAAAAAACCTGCACCCATTTTCATGGGTGAGTTACTTAAGACATCAGCTTTAT
AGCCTCTATGAGTCTATCTTCTGTATAAGTTTTGTAAATTTAACATAAGGCTTAATGGGAGATGTTCTTTTGTC
TTGTATTAGATATTGCCAACTAAAGCAATAACCATCAAAAAACACAAGAACTTGTCAATGCTAGCAGTAATTTT
TGAGTGTGTGCGCTCTCGGAATGATTGACTTCGTTCACTGACTACTATTAAGATTTTCCAAGGACTGACTCATC
CCAAATTTTGTGTATTACCAAAAAACAGATTTCCTTATCAGAATTTGGAATAGAATGTGATCTCTATTGCAAC
AAGTAATTTTAAAAGAAAGCTACATTTATTTTAGAGTAGTGCTCCTAACATGTATTATCAACTTTGTGGATTACA
TTGGAGGAAAAATTTAAACTGGGGCCTTGAATATTTATTTTTTGAAGTACCATGTTAAATACTGAAGTATAATT
TGGGGGAGTTATAAAGTTATGATAAACATTTCATCTGATTATTTTAAACAATAGTTGTGGTAGATAAACATACTGG
AGGTGAGTAAAAATTGAATTCATATAGTAACATGCAGTCTGAAGTCTAGTTACTTAATAGGTACTCAGCCTGGAG
TGAAAAATCCTGGGTACTGACTTTGAGAGGAGTGAGTGTGCATGTTGTCAAAGTTTCTGAACACAGTTCACATAGC
CTTATTAGCAAAAGTTTTAAGAAATGGCTCTATCAAAGAAGCAATTGCAGCTTTATTCAGAAATATAAAGTGGAA
ATTTATGTACATGTCATAAGTGGTACCCACTTCCCCTTTTTACTGTAGGGTGGATAACTCTTAGGATTTAACTCT
TTGAATATTATCTCTTGAATAAAGCATGTGTTAATGTTAACAACCTACGTAATTTTGCCCTTTCAATGACTTA
CAGTGGAGAGCCAGTACATCTTAACTACTGTTGTAGTGATGGTATCAACCTCATGGTTACTTAGCTCTGCATTTG
TTGCTTTGTTTTTTTTCCACTTCAAATCACAAAATAAGTAGATTTTGTCTTCTGAAAACCTCCATAGCATTGAAAT
ACAAAAGTTGTGCCAGATTGTTTGCCCTAATTCAGTGTGTTTAAACAATTTTCAGTACACACTATGTATTAGG
CACTGTGTGGAAGTGTTAAGGGGTAGACAAGATACCGAATAATCTCCACAAGTTTATTTGTGGTCTATAGTACT
TTTGTAAGTGGGGTTACAAAAATTATAGAAATTTTTTCTTTGTTTCATATGCATATTTCATGATTATAATTTGGC
TTTGTGTGTGATTAAATGTTTTCTTAAGATTTTACATTATAGAATACCTCAAAGAAGTTGTCTAAGGACTGGGA
TAGAGAGTATGTTTCATAAAATTGTAGATGTTTAGAATTTTTAAAAACCTACAAATTAGTATATGATTGTTTTTA
TATAAGTAAGATAGGAGCAACACTTTAAATTATTTGTGGGAGAATACAGCATTAAAGGTGATTTTAAAAGAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 1052

MNRVNDPLIFIRDIKPGLKLNLVVFIVLEIGRVTKTKDGHEVRSCKVADKTGSITISVWDEIGGLIQPGDIIRLT
RGYASMWKGLTLYTGRGGELQKIGDLGAVQAAAMRDSIHYYPGNDLHPDLEEPSSLGV

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FIGURE 1053

ATTCCCCAACCTGATAGCCCTCCGCGACGCATTACGCACCGCGGACAGCTGGAGAGGCCGAGGCGCTCTCGCTTT
GATTTTCGGCGCCTCCGCCCTCGCGGGGAGAGATTGGCTGCGGCCGCGGGACGGGGTAGTGAGCGCGTCACTTCCT
GCCGCTGCCAGGCGCGTCTCCCGCGCGCTATGACGGCCAGCGCACAGCCGCGCGGGCGGCCAGGAGTCGGA
GTCGGAGTCGTGGTGACCAGCTGCAAGCATCCGCGTTGCGTCTCCTGGGGAAGAGGAAAGGCTCGGTTGGAGCT
GGCAGTTTCCAACCTCCCTGGAGGTCATCTGGAGTTGCGGTGAAACCTGGGAAGAATGTGCTCAAAGGGAAACCTGG
GAAGAAGCAGCTCTTCACCTGAAAAATGTTCACTTTGCCTCAGTTGTGAATTCTTTCATTGAGAAGGAGAATTAC
CATTATGTTACTATATTAATGAAAGGAGAAGTGGATGTGACTCATGATTGAGAACCAAGAATGTAGAGCCTGAA
AAAAATGAAAGTTGGGAGTGGGTTTCCTTGGGAAGAACTACCTCCCCTGGACCAGCTTTTCTGGGGACTGCGTTGT
TTAAAGAACAAGGCTATGATCCATTTAAAGAAGATCTGAACCATCTGGTGGGATACAAAGGAAATCATCTCTAG

GTGGCCGAGAAGATTTGATTTTCTTTAAAAAGACAAGAATAAGGTCTGGTTAGGGAATGAAAAATGTATACATTT
CGGAACAACCTCCATTTTATCTAAAAAGTTCTTGTGATTGCCAGTTTATTTGCAGTCTCTTAATGTATCCCCAC
TCTTTCAGCCAGTACTTGAGAAAATTTTTCTGAAATATGTCATTGAATTGTATTCCAGACACAGAATACATGATA
AATACTGATATTATGGGTAATCTGCTTTCATATTTACCTATGATATTTACTGTGCAGTTTGTCACTACTAGCTT
GCATGGAGTAGGATGCAGTCAAATTTGCCTTAGTGTCTGTTCAAATAGAGACCTGAATTCAAATATTGTAGTT
TAGGTTCAAACAGAGTATGGCTGTTGCAAAATTTACCAAATTTGTTGATTACCTCTTTTATTAAAGAAATGTTGG
GGAGAGGGTAATATATTGTGACAATTTTGAACCTTACAGGGAATAGGACAGGTCATTAGGGTGTATTTCCCAGG
TTTCCAATTGAGAACTAAACCAAGAGAAGTGAGACAAACCATCTAATATCTGTATCATGCTATTAATAGGCTGT
GATGTTGAGTTTCTCACTTACTCTTTCTGAGGTCCAGGGTCCTTATATGAAGAGATTCATATATATGAAGAGATT
CGTCTAGAGCAGTGGTTGTCAAAGTGTGGTCTGGGGGGGCCTCAAGAGCCTTCAAGGGTATTCTAGGTCAAAGC
TGTTTTTATAACACTAAGACATTATTTCACTATTTATAGCTTTTCCTTTTTTTTATTTGAGAAGGAGTCTTGCTC
TGTTGCCACATTGGAGTGCAGTGGCACGATCTCAGCTCATTGCAGCCTCCGCCACCTGGGTTCAGCAATTCTC
CTACCTCAGCTTCCCGAGTAGCTGGGATTATAGGCACCCACCACACCTGGCTAATTTTTGTATTTTATGTG
AGACGGGGTTTACCATGTTGGCCAGGCTGGTCTGGAACCTCCTGAGCTCAAGTGATCTGCCCATCTCAGCCTCCC
AAAGTGCTGGGATTACAGGTATGAGCCACAACGCCCAGCCATCATTTATCTTTTTCACTCATTTTTTTCATGAGTA
TGCAGAGGAGTTTTCAAGAGGCTATCTGGTGTGATATTGTAATAGGCTGAATGCAAAAGCAGATACAAGATTCCA
GCTTTCGTCTGTCTCAGACATTGAAGAGATTTGGAGAAATGTAAAGCAGCAGTACTCTTCTACTAATTTTTAT
TGTTGGTTAGTTAGAAAAATGGTTATTTTTAGTGGGTTTTAATATGTGAAAAAATAAAATTAGCTATTTGCC

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FIGURE 1054

MTASAQPRGRRPGVGVGVVVTSCKHPRCVLLGKRKGSVGAGSFQLPGGHLEFGETWEECAQRETWEEAALHLKNV
HFASVVNSFIEKENYHYVTILMKGEVDVTHDSEPKNVEPEKNESWEWVPWEELPPLDQLFWGLRCLKEQGYDPFK
EDLNHLVGKGNHL

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FIGURE 1055

GCCCCCGCGCCCCGACCAGCCCGGCCTCGGGCAGCCACTCACCGGTGTCCCCGTCCGCGTCTTTCCTCCCCGG
GTCCCCGGCC**ATG**GCGCTGAGTGAACCCATCCTGCCGTCTTCTCCACTTTCGCCAGCCCGTGCCGCGAGCGCGGC
CTGCAGGAGCGCTGGCCGCGCGCCGAACCCGAGTCCGGCGGCACCGACGACGACCTCAACAGCGTGCTGGACTTC
ATCCTGTCCATGGGGCTGGATGGCCTGGGCGCCGAGGCCGCCCGGAGCCGCCGCCGCCGCCGCCGCCCGCCTGCG
TTCTATTACCCCGAACCCGGCGCGCCCCGCCCTACAGCGCCCCCGCGGTGGCCTGGTGTCTGAGCTGCTGCGA
CCCGAGCTGGATGCGCCGCTGGGGCCCGCACTGCACGGCCGCTTTCGTGCTGGCGCCGCCCGGCCGCTGGTCAAG
GCCGAGCCCCCTGAAGCGGACGGCGGGCGGGCTACGGCTGCGCCCCCGGGCTGACCCGTGGACCGCGCGGCCTC
AAGCGCGAGGGCGCCCCGGGCCCCGGCGGCTTCGTGCATGCGAGGTCCCGGGGGCCGCCGCCGCCGCCGCCGAC
ACACCGCCGCTCAGCCCCGACGGCCCCGCGCGCCTGCCCGCGCCCGGTCCGCGCGCCTCCTTCCCGCCGCCTTTC
GGTGGCCCTGGTTTCGGCGCGCCCGGGCCCGGCCTGCATTACGCGCCGCTGCGCCCCCAGCCTTCGGTCTCTTC
GACGACGCGGCCCGCCGCCGCGCAGCCCTGGGCCTGGCGCCCCCGCCGCCCGCGGTCTCCTACGCGCCTGCG
TCCCCGCTGGAGCTGCTGGAGGCCAAGCCAAAGCGCGGCCGCGCTCTTGGCCCCGAAACGCACCGCCACTCAC
ACCTGCAGCTACGCGGGCTGCGGCAAGACCTACACCAAGAGTTCGCATCTGAAGGCGCATCTGCGCACGCACACA
GGTGAGAAGCCCTACCACTGCAACTGGGACGGCTGCGGCTGGAAGTTTGCGCGCTCAGACGAGCTCACGCGCCAC
TACCGAAAACACACGGGGCCACCGGCCATTCCAGTGCCATCTGTGCGATCGTGCCTTTTTCGCGCTCCGATCACCTG
GCGCTGCACATGAAACGGCACATG**TAG**CCGGGACGCCCCCGCCACCTGCGGCGGGCCGTGGCGGGTCCCACGCG
CCGGGCGCGGCCCCCTCCCAAACCTGTGACTGGTATTTATTGGACCCAGAGAACCAGGGCCGGGCACAGCGTGGCTA
CAGAGGGTCTCCCTCGATGACGACGACGACGACGCCACCACCCAGCCCCGTCTGTGACTGAAGGCCCGGTGGG
AAAAGACCACGATCCTCCTTGACGAGTTTTGTTTTTCAAATGGTGCAATAATTTAAGTGGCATCTTCTCTCCCA
CCGGGTCTACACTAGAGGATCGAGGCTTGTGATGCCTTGTGAGAAATAAGGGCCTTAATTTGTACTGTCTGCGGC
ATTTTTTATAATATTGTATATAGTGACTGACAAATATTGTATTACTGTACATAGAGAGACAGGTGGGCATTTTTG
GGCTACCTGGTTCGTTTTTATAAGATTTTGCTGGGTGGTTTTTTTTTAATTAAAAAGTTTTGCATCTTTT

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FIGURE 1056

MALSEPIILPSFSTFASPCRERGLQERWPRAEPESGGTDDDLNSVLDFILSMGLDGLGAEEAPEPPPPPPPPAFYY
 PEPGAPPYPYAPAGGLVSELLRPELDAPLGPALHGRFLLAPPGRVLKAEPPPEADGGGGYGCAPGLTRGPRGLKRE
 GAPGPAASCMRGPGRPPPPPDTPPLSPDGPARLPAPGPRASFPPPGGPGFGAPGPGLHYAPPAPPAFGLFDDA
 AAAAAALGLAPPAARGLLTPPASPLELLEAKPKRGRSWSRKRRTATHTCSYAGCGKTYTKSSHLKAHLRHTGK
 PYHCNWDGCGWKFARSDDELTRHYRKHTGHRFPQCHLCDRAFSSRDHLALHMKRHM

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FIGURE 1057

CGGAATTGGTGGGTTCTTGGTCTCACTGAGTTCTAGAATGAAGCTGCAGACCCTCGCAGTGAGTGTTACAGCTCT
 TAAGGCTCTCTGACTGCCACCCCTGCCTGCCTGCCCCGGCCCTGCACAAC**ATG**CAGCCCTCCGGCCCTCGAGGGTCC
 CGGCACGTTTGGTCGGTGGCCTCTGCTGAGTCTGCTGCTCCTGCTGCTGCTGCCAGCCTGTAACTGTGCCTA
 CACCAGCCAGGCCCCCCCCAGAGCCCTCACCACGCTGGGCGCCCCCAGAGCCCACACCATGCCGGGCACCTACGC
 TCCCTCGACCACACTCAGTAGTCCCAGCACCCAGGGCCTGCAAGAGCAGGCACGGGCCCTGATGCCGGGACTTCCC
 GCTCGTGGACGGCCACAACGACCTGCCCCCTGGTCCTAAGGCAGGTTTACCAGAAAGGGCTACAGGATGTAACTT
 GCGCAATTTAGCTACGGCCAGACCAGCCTGGACAGGCTTAGAGATGGCCTCGTGGGCGCCAGTTCTGGTCAGC
 CTATGTGCCATGCCAGACCCAGGACCGGGATGCCCTGCGCCTCACCCTGGAGCAGATTGACCTCATACGCCGCAT
 GTGTGCCCTCCTATTCTGAGCTGGAGCTTGTGACCTCGGCTAAAGCTCTGAACGACACTCAGAAATTGGCCTGCCT
 CATCGGTGTAGAGGGTGGCCACTCGCTGGACAATAGCCTCTCCATCTTACGTACCTTCTACATGCTGGGAGTGCG
 CTACCTGACGCTCACCCACACCTGCAACACACCCTGGGCAGAGAGCTCCGCTAAGGGCGTCCACTCCTTCTACAA
 CAACATCAGCGGGCTGACTGACTTTGGTGAGAAGGTGGTGGCAGAAATGAACCGCCTGGGCATGATGGTAGACTT
 ATCCCATGTCTCAGATGCTGTGGCACGGCGGGCCCTGGAAGTGTACAGGCACCTGTGATCTTCTCCCACTCGGC
 TGCCCCGGGTGTGTGCAACAGTGCTCGGAATGTTCTGATGACATCCTGCAGCTTCTGAAGAAGAACGGTGGCGT
 CGTGATGGTGCTTTGTCCATGGGAGTAATACAGTGCAACCCATCAGCCAATGTGTCCACTGTGGCAGATCACTT
 CGACCACATCAAGGCTGTCATTGGATCCAAGTTTCATCGGGATTGGTGGAGATTATGATGGGGCCGGCAAATTCCC
 TCAGGGGCTGGAAGACGTGTCCACATAACCGGTCCTGATAGAGGAGTTGCTGAGTCGTGGCTGGAGTGAGGAAGA
 GCTTCAGGGTGTCTTCGTGGAAACCTGCTGCGGGTCTTCAGACAAGTGGAAAAGGTACAGGAAGAAAACAAATG
 GCAAAGCCCCCTTGGAGGACAAGTTCCCGGATGAGCAGCTGAGCAGTTCTGCCACTCCGACCTCTCACGTCTGCG
 TCAGAGACAGAGTCTGACTTCAGGCCAGGAACCTCACTGAGATTCCCATACACTGGACAGCCAAGTTACCAGCCAA
 GTGGTCACTCTCAGAGTCCTCCCCCACATGGCCCCAGTCCTTGACAGTTGTGGCCACCTTCCCAGTCCTTATTCT
 GTGGCTCT**TGAT**GACCCAGTTAGTCCTGCCAGATGTCACTGTAGCAAGCCACAGACACCCACAAAGTTCCCCTGT
 TGTGCAGGCACAAATATTTCTTGAAATAAATGTTTTGGACATAGAAAAA

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FIGURE 1058

MQPSGLEPGTFRWPLLSLLLLLLLLLPVTCAYTTPGPPRALTTLGAPRAHTMPGTYPSTTLSSPSTQGLQEQ
ARALMRDFPLVDGHNDLPLVLRQVYQKGLQDVNLRNFSYGQTSLDRLRDGLVGAQFWSAYVPCQTQDRDALRLTL
EQIDLIRRMCASYSLELVTSAKALNDTQKLACLIGVEGGHSLDNSLSILRTFYMLGVRYLTLTHCNTPWAESS
AKGVHSFYNNISGLTDFGEKVVAEMNRLGMMVDLSHVSDAVARRALEVSQAPVIFSHSAARGVCNSARNVPDDIL
QLLKNGGVVMVSLSMGVIQCNPSANVSTVADHFDHIKAVIGSKFIGIGGDYDGAGKFPQGLEDVSTYPVLIEEL
LSRGWSEELQGVLRGNLLRVFRQVEKVQEEKWQSPLEDKFPDEQLSSSCHSDLSRLRQRQSLTSGQELTEIP
HWTAKLPKWSVSESSPHMAPVLAVVATFPVLILWL

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FIGURE 1059

TATTTTGTGATGTGTTGAACCTCGATTAAGATTGCATTATGACATTCTTGAAGACCGAGTTCCATCAGGACTT
ATTGTTGACTACCACAATCTGTTGTCTCAATGTGAGGAGAGTTACAGGAAATTTTAAATCTGAGAAGCAGTTTG
TCAAATTGTAACCTGACTCCGAGCAGGAAAATATCTCC**ATGG**TGGAAGGGTTAAAAATTGTATTCCGAGATGGAA
CAGTTGAAACAAAAGCTGAAACTCATTGAGAATCCTTTGTTGAGGTATGTGTTTGGTTATCAGAAGAATTCTAAC
ATCCAAGCAAAGGGTGTCCGTTCCAGCGGTGAGAAGATCACTCATGTGGTCTCCTCCACCATGATGGCTGGTCTC
CTGCGGTCCCTGCTTACGGACAGGCTTTGCCAGGAGCCTGGTGAGGAAGAAAGAGAAATTCAGTTCCATAGTGAT
CCATTGTCTGCTATAAATGCCTGCTTCGAAGGTGACACTGTTATTGTTTGTCTGGCCATTATGTGGTACATGGC
ACTTTCTCCATTGCTGACTCCATTGAGTTGGAAGGATATGGCCTACCAGATGACATTGTGATAGAAAAGAGGGGC
AAAGGCGACACTTTTGTGGACTGCACTGGTGCTGATATTAATACTCAGGCATAAGATTGTTTCAGCATGATGCT
GTAGAGGGAATCTTAATTGCTCACCGTGGTAAGACTACGCTGGAAAATGTGTGCTGCAGTGTGAGACGACCGGA
GTCACAGTGCGGACATCAGCAGAGTTTCTAATGAAGAACTCGGATTTATATGGCGCCAAGGGTGTGGTATAGAA
ATCTACCCTGGGAGTCAGTGCAACCTGAGTGACAATGGGATCCATCACTGCAAGGAAGGGATCCTCATTAAAGGAC
TTCTTAGATGAACATTATGACATTCCCAAGATATCCATGGTGAATAATATAATACATAATAATGAAGGTTATGGT
GTTGTCTTGGTGAAACCTACAATCTTCTCTGACCTGCAAGAAAATGTGAAAGATGGAATGAAGAAAATAAGCG
CTTAAAAATTCAGACAAGTGAGAGCCAGATGTGGCTGAAAGAGTGGAATCTAGAAGAGCTGATTGAGTGTGCAACT
GGTAAAATGGAGCTTTGTGCAAGAACTGACCTTCTGAGCAAGTCGAGGGAAAATTGTGAAATTGTAAATGAACATA
ATTGCTGCCTCCACACAGAAAGGCCAGATAAAGAAGAAAAGGTTGAGTGAAGTGGGGATCACGCAAGCTGATGAC
AACTTAATGTACAGGAGATGTTTGTGGGATTGTGGGAACCAAGTTCAGTGGAATGGGAAAGGTAGTTTGGC
ACATTTCTTTT**TGAC**TACAGTGATGTAAGTAGATAGCAAAATACTGGATTTGCACATGCTGCCCTAAGAATCA
CTGCTGCCATTGTAGTTTGTCTGATTGTCTGTATTTTATATTTGATTATTTGGGCTTGAGTGAAAGGTAGATTTA
TTTCCATTTGCAGGTGTTGCACATAAAACACTCCCTCTTTATAAGAAAAATCATAAATGCATATAAAATAGAAAA
TATTTGGAGATTGCTTATCTGAAAGTCTTGCTTTCTTATACACATGGTTCTCTCATATTAAGCCTGGTGGTTACT
TTTTAGTGTAATTACCTTTAGCACTTCAAAGACGAGGAAGTAAGGAAGGGAATGCAAGACTAGTGCAATAAAATG
CAATAGGTGTCATATGTACAGCATTTCTTCTTAGAGTTGCCTTTTCATCCCAATTACAGTGAGTCTGATTTCCATC
CTGTATTTGCATAATACTTGTCTTAAATAAAAGCTTTTATGATTGGGAATTTATCTGCCTAATCAGACTTATTA
TTGAGACGTCAATGGGACGCATTTTCTGTTGAGCTATGCAGTCGTCAAAACAGCGATAGACAGCATAGGAGGTT
TGAAGCAGAAATGAAATGTGTTATTTCAGAGCCAATGTTGTACATAGAGCATTTTCACTATTGCTGAATGGGAATG
ATTAAAAACAAGGTATTTTTCGGGCCAGGCGGTGGCTCACGCTTGTAATCGCAGCACTTTGGGAGGCTGAGGCAG
GAGGATCACTTGAGCCCAGGAGTTCAAGACTAGCCTAGGCAACATAGTGAGACCTGTCTCTACTAAAAATAAAT
TTAAAAAAATTAGCTGAGTGTGGTGGTGCAIGCATGTAGTTCCAGCTACTCAGGAGGCTGAGGCTAGAGGATCC
TTGAGCCCAGGAGGTTGAGGCTGCAGTGAGGTGTGATTGCGCCACTGCATTCCAGCTTGGGCGACAGAGCGAGAC
CCAGTCTCAAAAAAAAAAAAAAAAAAGTATTTTCTTACC GTTACAGTATTCTGATTATATTACTGACACAGTCAA
AATGATTAAGTGTACAACCTGTATCTGCTGGGTGTTCTTGTATCATATTGTAAACAGCTTTAAAAATATTTAT
ATTTTAAAACTGTATGTGACATTAATATGCCTAATGATTAAAATTATAGTGATGAAATAAAAAAAAAAAAAAAAAA
AAAAA

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FIGURE 1060

MVEGLKLYSEMEQLKQKLKLIENPLLRVYVFGYQKNSNIQAKGVRSSGQKITHVVSSTMMAGLLRSLLTDRLCQEP
GEEEREIQFHSDPLSAINACFEGDTVIVCPGHYVVHGTFSIADSIIELEGYGLPDDIVIEKRGKGDTFVDCTGADI
KISGIRFVQHDAVEGILIAHRGKTTLENCVLQCETTGVTVRTSAEFLMKNSDLYGAKGAGIEIYPGSQCTLSDNG
IHHCKEGILIKDFLDEHYDIPKISMVNNIIHNNEGYGVVLVKPTIFSDLQENAEDGTEENKALKIQTSGEPDVAE
RVDLEELIECATGKMELCARTDPSEQVEGNCEIVNELIAASTQKGQIKKKRLSELGITQADDNLMSQEMFVGIVG
NQFKWNGKGSFGTFLF

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FIGURE 1061A

TTGGGAAACCCCTACCTGTCTGTACCTGTAGGTCTTTTCTCTGGGGTCTGGAAGAAGAATCCTTCAATATCTTGCC
CTTCTGGTAATCTGAGAGCAGGGCGAGAAAAGGAAGATCAGAGTTCCACCCTTAAATCTGTAGGTTTTACTCCC
CCACTCTCCTTTGCAGTCCCGTGGAGTCTCCATCTGAGCCCTTTCTAGTCCAGGCATCCCGATGTTGGTGGATG
GCCCATCTGAGCGGCCAGCCCTGTGCTTCTTGCTGTTGGCTGTGGCAATGTCTTTCTTCGGCTCAGCTCTATCCA
TAGATGAAACACGGGCGCATCTGTTGTTGAAAGAAAAGATGATGCGGCTCGGGGGGCGGCTGGTGTGAACACCA
AGGAGGAGCTGGCCAATGAGAGGCTCATGACGCTCAAAATCGCTGAGATGAAGGAGGCCATGAGGACCCTGATAT
TCCCACCCAGCATGCACTTTTTCCAGGCCAAGCATCTCATTGAGAGAAGTCAAGTGTTAATATTCTAAGGATGA
TGCCAAAAGGGGCTGCCTTGACCTCCATGACATTGGCATCGTGACTATGGACTGGCTGGTGAGGAATGTCACCT
ACAGGCCTCACTGCCACATCTGTTTACCCCAAGGGGGATCATGCAGTTCAGATTTGCTCACCCAACTCCCCGTC
CATCAGAAAAATGTTCCAAGTGGATTCTGCTGGAGGATTATCGGAAGCGGGTGCAGAACGTCAGTGTGATG
ACAGCTTGCTGAGGAATTTCACTCTGGTGACCCAGCACCCGGAGGTGATTTACACAAACCAAAATGTTGTCTGGT
CGAAATTTGAAACCATCTTCTTACCATCTCTGGTCTCATCCATTACGCACCAGTGTTAGAGACTATGTCTTCC
GGAGCATGCAGGAGTTCTACGAGGACAACGTGCTCTACATGGAGATCAGAGCCAGGCTGCTGCCGGTGTATGAGC
TCAGTGGAGAGCACCATGACGAAGAGTGGTCAGTGAAGACTTACCAGGAAGTAGCTCAGAAGTTTGTGGAAACTC
ACCCTGAGTTTATTGGAATCAAATCATTTATTTCGGATCACAGATCCAAAGATGTGGCTGTATCGCAGAATCCA
TCCGAATGGCCATGGGGCTCCGAATCAAGTTCCCCACGGTGGTGGCAGGTTTGACCTGGTGGGGCATGAGGACA
CTGGCCACTCCTTGCGTGACTACAAGGAAGCTCTGATGATCCCCGCCAAGGATGGCGTTAAGCTGCCTTACTTCT
TCCACGCCGGAGAAACAGACTGGCAGGGTACTTCCATAGACAGGAACATTCTGGATGCTCTGATGCTGAACACTA
CCAGAATCGGCCATGGATTGTCTTTGAGCAAAACACCCCGCAGTCAGGACTTACTCCTGGAAAAAGGACATCCCCA
TAGAAGTCTGTCCCATCTCTAACCAGGTGCTGAAACTGGTGTCTGACTTGAGGAACCACCCTGTAGCCACTCTGA
TGGCCACTGGGCACCCCATGGTGATCAGCTCTGATGACCCAGCTATGTTTGGTGCCAAAGGCTTGTCTATGATT
TCTATGAGGTCTTCATGGGCATTGGGGGGATGAAGGCTGACCTGAGGACCCTCAAACAGCTGGCCATGAACCTCTA
TCAAGTACAGTACCCTGTTGGAGAGTGAGAAAAATACTTTTCATGGAAATCTGGAAGAAGAGATGGGATAAGTTCA
TAGCAGATGTGGCTACAAAGTGAGGAGAAGCTAGCCAGCCCTCTACAAGCTGTCTTCTTGACACGCTGTCACTT
CCTCTCACTCGTTCTTGAATCAGCTCCATGTGCCCATGAAATCAATGGCCTCTGTATGGAGCGACCCTGTGAGAA
GCACCTGGCTGGCTGAGCAAATTCATCCTCTGGAAATATTCTCTCTCAGCCACAGTGACATTGACCCTCTTGGTT
TTCTCCTCTCTCTGGCCATTTCTTCCAGTTTCCCTATTTTCAGAGTCTTCTCCTCTCTCTGATCTCTGTGCTGTTT
CCTCAGGACTCAGTCTTGGGCTCTCTTCTATTCTGGTCTCTTTATTTTTTTTATTTTTTGTATTTTTTCGAGATGGA
GTTTTGCTCTTGTGCCCAGGCTGGAGTACAATGGTGCATCTCAGCTCAGTGCAACCTCCGCCACCCGGGTTCA
GGCAATTCTCTTGATCAGCCTCCCGAGTAGTTGGAATTATAGGCATGTGCCACCACACCCAGCTGATTTTTTGCA
TTTTTAGTAGAGACAGGTTTTTACCATGTTGGCGAGCTGGTATCCAACCTTTGACCTCAGGTGATCCACTCGCCC
CTTGGCTCCCAAAGTGCTGGAATTACAGGCGTTAGCCACCATGCCTGGCCTATTCTGGTCTCTTTAACTCTCTCC
TCTTTATTTCTCTCTCTCTGTACACTTTTCTGGGTGGTCTCATCCATTCTTTGCTTTTTTACATACCATTTA
TTTGTTAATGATTCCACATTTATTTATGCACTTGGAGAGCTCACAGGAATCTCAGAACTGATGAGGTACAATT
CTGAACCCCTCAGTCTCTTCCCTTTAAACCTTTCTTTTTCTCTACTTTAATTTTTCTAAAGAGTGTCTTGCTATGT
TGCCAGGCTGGTCTCCAACCTCAAGTGATCTCTGCGCAGTCTCCCGAAGTGCTGGGATTACTGACATGAGCC
ACCACACTCAGCCCTTTAAACCTTTCCCTGGCCTTTCCCATAGCTGGTGAAGGACACCTCCATCCATTCCACGCA
GTTGCTCAAAGCAGAAATTTTCAGTGCAAGTCTTGATGCTGCGCCGTCCCCACTCCCTACATCAGAACGCATCC
CTCATCTGGACTCCAGCGGTGGCTTCTTGATGCTGCGCGGTCCCCCACTCCCTACATCAGAATGCATCCCGCATC
CAGACTCCAGCGGTGGTGCTCTACCTGCACGCTGTTGCCAAGTCCAAGCTACCATACTCTGCCTGAGCTATGAC
AACAGCCTCCTCACTGATCTCCCCTTTCTTCCCTTTTGCTCCTCCAGCTCATTTTTTACAGTGTAGAATGACATT
TTGTTTGTGTTGTTTTGTTTTGTTTTGAGATGGAGTCTCGTTCTGTTGCCCAGGGTGGAGTGCAGCGGTGCGATCTC
GGCTCACTGCAACTTCCACTCCCGGGTTCAAGCGGATTCTCGTGCCCTCAGCCTCCTGAGTAGCTGGGATTACAGG
CATGCACCACCATGCCCAGGATAATTTTTGTATTTTTAGTAGAGATGGGGTTTCACTATGTTGGCCAGGCTGGTCT
CGAACACCTGACTTCGTGGTCCACCCGCCTTCGGCCTCCCAAAGCACTGGGATTACAGGCGTGAGCCACCCGGCC
TGGCCTAGAATGACTTTTAAAAGATCAAATTAATCAGGTCACCTTTGCTTACAACGCAGTGCCTTTAGAGGT
ACACCCCATGTCTCCACAGGCGATACAGCATCCGATTTAATCTGGATCCATTCGGGCGCTTCTCTCCAGTCAC
CCAGAGGGCCCCAACCCCGCGGCCCTTTCTTCTCAAATGTCTCGGCTCTATACCGTGCCTGGGTCTTTTCTC

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FIGURE 1061B

TTTCTCTCTGCCTGGAACATTCCCTTCTTTCCCTTTTGTCTTGCCCACTCCTGTTTACCCTTCAAGTTTCAAGTT
CATGTCACCTGTCTCAGAGAGGTTTTCTGTGCTCGCCCTGTTTCTCTCAGGAAGCCTTGCTCTTTTCCATCATGC
CTCTAATCACAGCTTATAATCGGATATTTATTTCTGTGTCTACAGTCTTGCCCTGCCAGACTGTAAGCCCCATGT
GGGCAGGCGCTCATGATTGTTTCTGATTGTTTACGCATGCTGCTAACCCAGAGCCTGGGCCCAAAGCTAGTTAG
TACTCAATAAACAATGCATTGAAAAAAAAAAAAAAAAAXTA

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FIGURE 1062

MLVDGPSERPALCFLLAVAMSFSGSALSIDETRAHLLLKEKMMRLGGRLVLNTKEELANERLMTLKIAEMKEAM
RTLIFPPSMHFFQAKHLIERSQVFNILRMMPKGAALHLHDIGIVTMDWLVRNVTYRPHCHICFTPRGIMQFRFAH
PTPRPSEKCSKWILLEDYRKRQNVNTEFDDSLRNFTLVTQHPEVIYTNQNVVWSKFETIFFTISGLIHYAPVFR
DYVFRSMQEFYEDNVLYMEIRARLLPVYELSGEHHDEEWSVKTYQEVAKFVETHPEFIGIKIIYSDHRSKDVAV
IAESIRMAMGLRIKFPTVVAGFDLVGHEDTGHSLRDYKEALMIPAKDGVKLPYFFHAGETDWQGTSIDRNILDAL
MLNTTRIGHGFALSKHPAVRTYSWKKDIPIEVCPISNQVLKLVSDLRNHPVATLMATGHMPVISSDDPAMFGAKG
LSYDFYEVFMGIGGMKADLRTLKQLAMNSIKYSTLLESEKNTFMEIWKKRWDKFIADVATK

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FIGURE 1063

CCAAGCTCCAGCTGTTTGTCAAGGCGAGTGAGGACGGGGAGAGCGTGGGTCACTGCCCCTCCTGCCAGCGGTCTT
CATGGTCCTGCTCCTCAAGGGCGTACCTTTACCCCTCACCACGGTGGACACGCGCAGGTCCCCGGACGTGCTGAA
GGACTTCGCCCCCGGCTCGCAGCTGCCCATCCTGCTCTATGACAGCGACGCCAAGACAGACACGCTGCAGATCGA
GGACTTTCGGAGGAGACGCTGGGGCCGCCCCGACTTCCCCAGCCTGGCGCCTCGTTACAGGGAGTCCAACACCGC
CGGCAACGACGTTTTTCCACAAGTTCTCCGCGTTCAATCAAGAACCCGGTGCCCGCGCAGGACGAAGCCCTGTACCA
GCAGCTGCTGCGCGCCCTCGCCAGGCTGGACAGCTACCTGCGCGCGCCCTGGAGCACGAGCTGGCGGGGGAGCC
GCAGCTGCGCGAGTCCCGCCGCGCTTCCTGGACGGCGACAGGCTCACGCTGGCCGACTGCAGCCTCCTGCCCAA
GCTGCACATCGTCGACACGGTGTGCGCGCACTTCCGCCAGGCGCCCATCCCCGCGGAGCTGCGCGGCGTACGCCG
CTACCTGGACAGCGCGATGCAGGAGAAAGAGTTCAAATACAGTGTCCGCACAGCGCCGAGATCCTGGCGGCCTA
CCGGCCCCGCGTGACCCCCGCTAGCGCCCCACCCCGCGTCTGTGCCCCAATAAAGGCATCTTTGTCGGGAAAAA
AA

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FIGURE 1064

MVLLKGVPTLTITVDTRRSPDVLKDFAPGSQLPILLYSDAKTDTLQIEDFLEETLGPPDFPSLAPRYRESNTA
GNDVFHKFSAFIKNPVPAQDEALYQQLRLARLDSYLRAPLEHELAGEPQLRESRRRFLDGDRLTLADCSLLPK
LHIVDTVCAHFRQAPIPAELRGVRRYLD SAMQEKEFKYTCPHSAEILAAAYRPAVHPR

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FIGURE 1065

GGCACGAGGCACCTCGCTCGCAGCCTCCCCAGCGCAGCAGCCCGGCTGTGGGCCTGCGGCAGCCGGGTCTTCCTG
GTCCCCACCTCCTGGGGCCGACGGGCGGCAGGAAGGGGCTCGGCGGGACGCGCCGTCAGGGACCTGAGGAGGAAC
AACGGAACGCGTTCGGAACGGCCTGGACTCCCGAGACTCACCCGACTCGTGGCCACACCGGGAGAACTGAAGCGG
CAGTAGCCGGCGGAGACGCCCAGCCGAAGGCCGGCTGCTAGGGAGCAGACAGCTGAACCGCTTGCCAGACGCCG
AAACCCAGTGACGCCCTCCACCGCTCCACCGTGCTCCCGGCTCCCCGCCCCCGCCGCCGCGGGCCCCAAGGCGC
ATGCGCCGCCTGTCCTGGAGGGGCCCATTTCGTCGCTCGTGGGGGGAGGCACAGTGAGTCCACTGGGGCACGGC
AGCGTCTAAGCCACAAGCCGAGCACATAAGCCAGGTCCTAACGGAGCCTATGTGTAAGTCCACTACTGGTGCAAG
GTTGCACACTTCTAAGAAGAGCGGCGTGGGGGGCTCGGCGACCTTCGCTTCAGTCGCTCCCCCGTCAGTCCCCCT
GTGCCCCAAGACACAGCCTGATGCTTGTGCTCCGGTGGGCGGAGCTTGGAGGCGGCGGGAACGCAATTGGTGGCT
TTGAAGGCGCGGCGAGCGGGAACAGCTCTTGAGGAGTGAGACTGCAGGAGATGTGGGCCGTGCCAAAGAGATGGA
TGAGACTGTTGCTGAGTTCATCAAGAGGACCATCTTGAAAATCCCCATGAATGAACTGACAACAATCCTGAAGGC
CTGGGATTTTTTGTCTGAAAATCAACTGCAGACTGTAAATTTCCGACAGAGAAAGGAATCTGTAGTTCAGCACTT
GATCCATCTGTGTGAGGAAAAGCGTGCAAGTATCAGTGATGCTGCCCTGTTAGACATCATTTATATGCAATTTCA
TCAGCACCAGAAAGTTTGGGATGTTTTTTCAGATGAGTAAAGGACCAGGTGAAGATGTTGACCTTTTTGATATGAA
ACAATTTAAAAATTCGTTCAAGAAAATTTCTTCAGAGAGCATTAAAAAATGTGACAGTCAGCTTCAGAGAACTGA
GGAGAATGCAGTCTGGATTGCAATTGCCTGGGGAACACAGTACACAAAGCCAAACCAGTACAAACCTACCTACGT
GGTGTAATACTCCAGACTCCGTACGCCTTCACGTCTCCTCCATGCTGAGGCGCAATACACCGCTTCTGGGTCA
GGAGTTAGAAGCTACTGGGAAAATCTACCTCCGACAAGAGGAGATCATTTTAGATATTACCGAAATGAAGAAAGC
TTGCAATTAGTGAACATGAAAGGAAAATAAAAAATTCCTCACAGTCAAAAAAAAAAAAAAAAAAAAA

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FIGURE 1066

MDETVAEFIKRTILKIPMNELTILKAWDFLSENQLQTVNFRQRKESVVQHLLHLCEEKRASISDAALLDIIYMQ
FHQHQKVWVDFQMSKGPGEDVDLFDKQFKNSFKKILQRALKNVTVSFRETEENAVWIRIAWGTQYTKPNQYKPT
YVVYYSQTPYAFTSSSMLRRNTPLLQGELEATGKIYLRQEEIILDITEMKKACN

[illegible]

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FIGURE 1068

MVQQDVQGLKAQSAGLSISQHLLSGCHGNIIPNPTTLSSRETAIIRRD LGFPRGSWASFLKRLLLSSATRNRPA
HPQHLCGDEGQSPTVPLPVLMRKGGKKTYP ERLQYGHDTFKKPVLWSDQKPECGEGQQPASEQPARRGVVNLGL
VPRHDWLRAQCSTLWNVPWASVAFLSFAGRLLPLWQLVS

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FIGURE 1069

GCCGCGGAGAAGGAGCCGGACCCCTTGGGCGGAGCGCCCAATGTGTGGTCCCTCACGCCGTCCCGCACCTTGCTT
TTTAGGGTTCTTTTTCCGCTTTCTGAGCCCTTTTATACCTTACGTTTAGAAGGGGAAAATCATCCTCCACACCT
TCTCCCGACTTTTTGCTTTTTTGTCTTGAAGTTACCCAAAGGCCTGTGTATTGTTCTCAATGGTCCCAAGAAT
TACTCTAATATAGTTGTTTTTCTGAGGGAGGATGGATGGAGATAACTATCCTGATCCCAATGTCACCTTTTTAAGG
CATTTCGCTTCAAGAGACAAGCAGTTTAGAATCAGGCAGAAGTGGATTGCAAAATTTATGGGCAGACCGAGAAAAT
GCTGCTGTGAAGACCCAATTAAAGCTTTCACATAAATGAAGCTACAGCTATCATGATTTAGTGCCCCAAAAGGA
AGAACTTCAGTGGAACAAGAAAGGACATTTCTGGGGGTAGTAGAATGCTTGAGGCCTGGAATTTAAACCTGAGCCA
CTATCTGAAGGTTTAATATATCTTTGCCAAGTCCAAGGTACAAAGATTTTCTCCTGTGTTTTCTTCTAGAAGTT
TTATCATTTGATAGTCTGTGATCCATTTCAAGTTGATTTGCTATCTGGTGTGAGCTATTAAATAATAGAAGAAAA
TGGAATTGAATATGATGTCAGC**ATG**GAACAATCTAATGATTTCATTAAAGAGTCAACCATAATGACGGTGAAGAGTC
AAAAACCAGTGCTCAAGTATTTGAGCATCTAATCTGTATGGACTCCAGGGATTCTTCCTTTGGACAAAATGATTC
TCCTACAGTTTTTGCCCATCACTACTCGTGAAGCAAATAATTCACTCATATCACAGAATATACCAGGGCCCCTGAC
TCAGACACAGACTCTTTCTGCAGAGCAATTCATCTAGTGGACCAAAATGGGCAGGCTATTCAATATGAACCTTCA
GTCATTGGGGGAATCCAATGCACAAATGATGATCGTTGCCAGCCCCAACAGAAAATGGACAGGTACTTCGTGTAAT
TCCACCTACCCAGACAGGAATGGCACAAGTGATTATACCTCAGGGGCAACTTGTGGATGTGAATAGTCCTCGGGA
TGTCCCTGAAGAGAAAACCCAGTAACAGAACTTACCAACTGTAAGAGTGGATACTCTAGCAGACAATACCAGCAA
TTACATTCTTCATCCTCAAACATCCTTCCCATTTGCCCAAAAAGTCAGTGACCGGAATGCTGGAAGAACCCCTTCT
GGGGCCTCTTCAGCCACTTTCTTCTAATACACCTATATGGGCCTGCCGTCTTAGGAGCTGTGAGAAAATTGGAGA
TTCATACCGTGGCTACTGTGTAAGTGAGACTGAATTAGAAAGTGTCTAACATTTACAAGCAGCAAACACAGAG
TGTTTGGGGGACCCGTCAGTCTCCAAGCCAGCCAAGCCTGCTACACGCTTGATGTGGAATCCAGTATGTTCC
ATATGATGGAATCCCATTTGTTAATGCAGGGAGTAGAGCTGTGGTAATGGAGTGTGAGTATGGGCCAAGAAGAAA
AGGTTTCCAGTTAAAAAAGTCAGTGAGCAGGAAAGCAGGTCTTGTGAGCTCTACAAAGCCACTTGTCCAGCTCG
GATTTACATTAAAAAGGTACAGAAGTTTCTGAATATAGAGTTCTACAGACCCCAAAATTGACAAGAAAATTAT
CAGAATGGAGCAGGAGAAAGCTTTTAACATGCTAAAGAAGAACTTGGTAGATGCTGGTGGTGTCTTAGGTGGTA
TGTACAGTTACCTACACAGCAAGCTCATCAGTATCATGAATTAGAGACTCCCTGCCTCACTTTGTACCTTCTCC
TTTTCTGTGTCTTCTCTTGAAGAAGAGGAAACTGCAGTTAGAGATGAGAATTGTGCATTACCCTCACGTTTACA
TCCTCAAGTAGCACATAAGATTCAAGAATTAGTATCACAGGGAATAGAACAAGTGATGCAGTAAGGAAACAGCT
AAGAAAATTTGTGGAAGGGAACTGTTCAAACCCGATGAGGTACCTGAAAGACATAATTTATCTTTTTTTTCCAAC
TGTAATGATATAAAAAATCACATCCATGAGGTACAGAAATCCTTGAGAAATGGAGATACGGTATATAACTCAGA
GATTATTCCAGCAACGCTTCAATGGACTACAGACAGTGGGAATATTCTCAAAGAGACCATGACAGTTACATTTGC
AGAAGGAAATTCACCAGGAGAATCAATTACCACCAAGTGGAAACAAATCAGACCAGGGGTTCTTTGTCTCCTGA
GCCAACCCACTTGCTCTCCTCACTCTCCTCATTTTCAGCCCAAAATATTTACACAACCTACAGGGTTTGCAGTTACA
ACCAAGGTACACCTCTCCTGATGAATCACCAGCTGTGGTATCAGTAAATAACCAGCCGTCCTCTAGTCCTTCAGG
ACTTCTGGATACAATAGGAAGTGCTGTAATGAATAATAATTCTCTACTGCTTGGTCAAAGTCATAGCCTTCAAAG
AGATACATGCTTAACCCAAAACAATAGTACTGCCTCCACCATGGGTAACTTCCAGAACCAGATCAAAATCTAGT
TGCAATGGACGAGCTGGTAGAAGTTGGAGATGTTGAGGATACAGGGAATCTGGAAGGAACTGTTTCATCGGATTCT
GTTGGGAGATGTGCAGACTATTCCAATACAGATTATAGACAACCACTCAGCTCTTATTGAAGAAAATCCAGAAAG
TACCATTTCTGTGAGCCAAGTTAAACAAGAACCCAAAGAACCAGCATTGTCTATGGAAGCAAAAACCTGTGGACT
ATAAGAAATTATCTGCTACATAAATTATTGAAGCTTTTCAGAAATTTACAACCTCTGGTGACTTCTGATGTCTTAGA
AAGGAAGGTGAATATAGTCAAAGCGTGGCATTGAGATAATTGGACTGAAGACCAGTTTGATGAGAAGCTTTTATT
TAAACTGATATATTTGTTGCCAGTTCCATATTTTTACCTTCCTTAAGAGATGTTTTACTCTTCTTATTTTGTAT
AATTTTTATGCTCTTTGATTATCTAATAAGGCCAGTATTTCAAAGCTGTTCTGAATTTATCCACAGTAATATAG
TCTGAACACAAATAGTTTACTTAACTTATCCTTGGAATATTCAATTTTGGTTATTACAAAACAGAAAAGAACAA
CAGCAACAAAACATTGTGTGAATATATGTTTGTATGTGTGTATGTATATCATGAATTTTTTTTTTAAGTTCTGA
AAAAGAAGTTGTTCTCTCCTTAAAGTTGTGAAGAAATTGTTAATTGCCAGACAGGTAAGAAAATGTTTATAATCT
ATCTCATTAAAGAAAGATGAAGTATTAGATTTTACATCATAACACAAAGTCCAGCAGCTACATC

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FIGURE 1070

MEQSNDSLVRVNHNDGEESKTSAQVFEHLICMDSRDSSFGQNDSP TVLPITTREANNLSLISQNIPGPLTQTQTLSA
EQFHLVDQNGQAIQYELQSLGESNAQMMIVASPTENGQVLRVIPPTQTGMAQVIIPQGQLVDVNSPRDVPEEKPS
NRNLP TVRVDTLADNTSNYILHPQTSFPLPKKSVTGMLEEP LLGPLQLSSNTPIWACRLRSCEKIGDSYRGYCV
SETELESVLTFHKQQTQSVWGTRQSPSPAKPATRLMWKSQYVPYDGIPFVNAGSRVVMQCQYGP RRKGFQLKKV
SEQESRSCQLYKATCPARIYIKKVQKFPEYRVPTDPKIDKKIIRMEQEKA FNMLKKNLVDAGGVLRWYVQLPTQQ
AHQYHELETPCLT LSPSPFPVSSLEEEETAVRDENCALPSRLHPQVAHKIQELVSQGIEQVYAVRKQLRK FVERE
LFKPDEVPERHNLSFFPTVNDIKNHIHEVQKSLRNGDTVYNSEIIPATLQWTTDSGNILKETMTVTFAEGNSPGE
SITTKVETNQTRGSLSPEPTHLLSSLSSFQPKIFTQLQGLQLQPRYTSPDESPAVSVNNQPSSSPSGLLDTIGS
AVMNNNSLLLQSHSLQRDTCLTQNNSTASTMGNLPEPDQNLVAMDELVEVG DVEDTGNLEGTVHRILLGDVQTI
PIQIIDNHSALIEENPESTISVSQVKQEPKEPALSM EAKNCGL

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FIGURE 1071

AGTGTGGTTTTAGTTTTTCCTAAGAAGTGGCGTGGTTTGGGGCTTTATATCCGGGAGGAGCATATGTACGCAAAAT
CCTGGGGCGTTTTGCAAACCCGGATCCGGGGCGTCTGGCCCCATGCCCGCCGGGCGTTTTGAGGGCTACTGCCACG
CAGCGTTTTCTGGAGCCTGCCGGCTGGTGCCCTGGTGGCCTTTATCTCTGTCCCCCTTTGTCTCTTTATCTCAGG
CTCTCCAGGAGGCCGGGGGGGCCACTCCGCCTATCGCTCCCCCTCGGCTACGCTGCCACTCCAATGCCCCGAGGT
CGCGAGCTGCTGTTCTTTTGAAGGCGCCGGAGAACCAGGGGGCGTCCCGCGCCACCTCTGACTCGGAGCAGCGCCG
AGCACTGACGCTCCCGCCCTTGGGCAAGGACGCCAGTGCGCCCGCGCGCTCCCTCTGCGCGGCAGCCCGTCGCG
GGCCCTCAAGGGGAAGCCAGGCCAGGATGCCCCGGGTGCGCGGGTGCCCGGGCTCCTGTTGCTGGCGGCCGCC
GGCCTCGGAGGAGTGGCGGAGGGGCCAGGGCTAGCCTTCAGCGAGGATGTGCTGAGCGTGTTCGGCGCGAATCTG
AGCCTGTGGCGGCGCAGCTCCAGCACTTGCTGGAGCAGATGGGAGCCGCTCCCGCGTGGGCGTCCCGGAGCCT
GGCCAGCTGCACTTCAACCAGTGTTTAACTGCTGAAGAGATCTTTCCCTTCATGGCTTTTCAAATGCTACCCAA
ATAACCAGCTCCAAATTCTCTGTCTATCTGTCCAGCAGTCTTACAGCAATTGAACTTTACCCATGTGAGGATCGG
CCCAAGCACAAAAACAAGACCAAGTCATTGAGAAGTTTGGGGATATGGATTCCCTGTGCTGAGTACGATTATTAATCTG
GCATCTCTCCTCGGATTGATTTTGACTCCACTGATAAAGAAATCTTATTTCCCAAAGATTTTGACCTTTTTTGTG
GGGCTGGCTATTGGGACTCTTTTTTCAAATGCAATTTTCCAACTTATTCCAGAGGCATTGGATTGATCCCAAA
GTCGACAGTTATGTTGAGAAGGCAGTTGCTGTGTTTGGTGGATTTTACCTACTTTTCTTTTTTGAAGAATGCTA
AAGATGTTATTAAAGACATATGGTCAGAATGGTCATACCCACTTTGGAAATGATAACTTTGGTCCTCAAGAAAA
ACTCATCAACCTAAAGCATTACCTGCCATCAATGGTGTGACATGCTATGCAAATCCTGCTGTGTCACAGAAGCTAAT
GGACATATCCATTTTGATAATGTCAGTGTGGTATCTCTACAGGATGGAAGAGCCAAAGTTCATGTACCTGT
TTGAAGGGGCCAAACTGTCAGAAATAGGGACGATTGCCTGGATGATAACGCTCTGCGATGCCCTCCACAATTC
ATCGATGGCCTGGCGATTGGGGCTTCTGACCTTGCTCTCTCCTTCAGGGACTCAGTACTTCCATAGCAATCCTA
TGTGAGGAGTTTCCCCACGAGTTAGGAGACTTTGTGATCCTACTCAATGCAGGGATGAGCACTCGACAAGCCTTG
CTATTCAACTTCCTTTCTGCATGTTCTGCTATGTTGGGCTAGCTTTTGGCATTTTGGTGGGCAACAATTTGCT
CCAAATATTATATTGCACTTGCTGGAGGCATGTTCTCTATATTCTCTGGCAGATATGTTTCCAGAGATGAAT
GATATGCTGAGAGAAAAGGTAAGTGAAGAAAAACCGATTTACCTTCTTCATGATTGAGAATGCTGGAATGTTA
ACTGGATTACAGCCATTCTACTCATTACCTTGATGAGGAGAAATCGAATTGGAGTAATAGAAAATGGAAGAT
GGTGTGTTAATAAAGGCATTTAATAGATAAAAAACATCTCCAAAAAGGATTTTGAAGCTGATCCTATTTAGTTAA
AAAGATAATTTTGCTTTCAACTGTAGGTCCAGAAAACATAATTATTGGCATCAGTCTGTGAAATAGTCCATTATTT
GTTGTTAAAAATGCTTCAAAAGGTTTTAGTGTGCTGAGATGCCTGGTATATAGGAGCCTTTGGGAAATACT
TATTTTTTCACTATTCCATGCATATTAGATATCACCATGAAGCAAGAGACATGCATTCTATAATCATGTAGACACT
CAGACTCAGGGGAAAAATACAAGTTATATCCTGAAAGCCTTTAAACTCTATGGTAGGATCAAAGATTCAAATGGT
TTCAGAGAGGTTTTATTTCAATTAATTTGTTCTAGTGCTTTCAAGAGCAAGTACATCAAAATGTAGAAGGTAAAA
TGTATGCAACACTAATATAAATTATTCCAAGTCTTTAAGGAGCCAAAGAAAAAAGATTTCTCACAGCTTTTTG
TTCTGTTTTGTATTTCAATTAGGAAGTTCAGTATTATTTTGAAGAACCTTCTAAATAATAGGAGTTAGGAAAT
AAATAAAGTTTTGCTAGCCCTGCTAAGTTCAGGCTTAGAGGCTTATCGCTAAGTXTAACTTCACCAGATTCCAC
GAAAAGCTGGATAGCTTTTTTCTGACTTATGTTGTGGTTGCACCCCTCACAAATGGCAGAACAGTATGTAAAGC
TGGTAACACCTCGGTTTCACTGCACCATGTGTTTGTGTTGTAAGGTGAAGAATATGTTGGTTTATAGAGAAAGAA
TTGGATGTAATTTTATGCAATTTACTTTTAAAGACAAACATAACTATTTAGCAGAGAATATTTTAAATAAATGCAA
AACACAGCTGGACTGCTGTACATCAAGGACAGATTAACTGGAAAACATATGTTCCCTTATGTGTGATTGAGAGCC
ATTGAGAAAAGACTTCCTTTGTGTTTCAAGCTTACTTTTCCATATGGTATACCTTGAAAAAATTAGCACACCAT
GGTTATTTTTTCTACCTTTTATAAAGACAGAGCCTGTTTACTCATTTAGAAGATAGAGAAAATTGGTCTAAAATT
GAACATCCTAGATTACACTCCCAAGTCACCTAAGGTGATTTGATGGTGAGGAAAATGATTGACAAAGCCCAACA
ATGATCTCAGGAATTACATTTTCCAACAGACCAAAAAATGTTTTATGTAGCAGCAATGCAGATTGGTGAATAT
TTAATATATATTTTAGTATGTATTTCACTTTATGACTGACAATAAAAAATATTGTTGGCCAAATAGTAAACAC
CCTTTTTGAACCATGAAAAAA

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FIGURE 1072

MAPGRAVAGLLLLAAAGLGVAEGPGLAFSEDVLSVFGANLSLSAAQLQHLLLEQMGAASRVGVPEPGQLHFNQCL
TAEEIFSLHGFSNATQITSSKFSVICPAVLQQLNFHPCEDRPKHKTRPSHSEVWGYGFLSVTIINLASLLGLILT
PLIKKSYFPKILTFFVGLAIGTLFSNAIFQLIPEAFGFDPKVDSYVEKAVAVFGGFYLLFFFFERMLKMLLKTYGQ
NGHTHFGNDNFGPQEKTHQPKALPAINGVTCYANPAVTEANGHIHFDNVSVVSLQDGKKEPSSCTCLKGPKLSEI
GTIAWMITLCDALHNFIDGLAIGASCTLSLLQGLSTSIAILCEEFPHELGDFVILLNAGMSTRQALLFNFLSACS
CYVGLAFGILVGNNFAPNIIIFALAGGMFLYISLADMFPENDMLREKVTGRKTDFTFFMIQNAGMLTGFTAILLI
TLYAGEIELE

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FIGURE 1073

GAATTCCTCCGGCTCCCGCGGCTGACAGGCGCGCGCTAGAGTGCTTGGCGGGCTCCGGCTTCCGCTCCGCCCCGGCC
CCGGTCCAGACTTAGTCTTCAGCTCCGCGCCCGCTCCGCCGCGGCCACCAGCGCCCGCCGGCAGCCGAGCCCCCA
GCGACGCCCGCACAGCTCCGGGTGCCAGACAGGGGGCCATCCGCTGCCGGAGGGAGGAGGAAGAGGAAGCCGGC
GAGGAGGCGGAGGGGGAGGAAGAGGAGGAGGACAGCTTCTCTACTGCAGCAGTCAGTGGCGCTGGGCAGCTCG
GGCAGGTGGACCGGCTGGTGGCCAGATCGGCGAGACGCTGCAGCTGGACGCGGCGCAXGACAGCCCGGCCTCG
CCGTGCGGGCCCCCGGGGGCGCCGCTGCGGGCCCCGGGGCCCCCTGGCTGCGGCGGTGCCGGCGGACAAGGCCAGG
TCCCCGGCGGTGCCGCTGCTGCTGCGGCCCGCGTTGGCGGAGACTGTGGGCCCGCGCCCCCTGGGGTCTTGCGC
TGCGCCCTGGGGGACCGCGGCCGCGTGCGGGGCCGCGCTGCGCCCTACTGCGTGGCCGAGCTCGCCACAGGCCCC
AGCGCGCTGTCCCCACTGCCCCCTCAGGCCGACCTTGATGGGCCTCCGGGAGCTGGCAAGCAGGGCATCCCGCAG
CCGCTGTCCGGTCCGTGCCGGCGAGGATGGCTCCGGGGCGCCGCCGCTCCCGCCGCTGCAGCAGCGACGCGGG
TCCCAACCAGAAACCCGCACAGGCGACGACGACCCGACCCGCTTCTGCAGCAGCTAGTGCTCTCTGGAACCTC
ATCAAGGAGGCCGTGCGAAGGCTTCATTGCGCAGCGCTGCAGTTACGTGCAAAGCTTCCCCAACGCCCGCTCCTG
GGACCTCTGTGGCCCCGGTGCATGAACCCCCCTTCGCTCGCAGCCCTCGCGCGGCTGCAGTGACCCTGGCGCC
TCCGGGAGGGCGCAGCTCAGAACTGGCGACGGCGTTCTTGTCCTGGCAGCTAAACAGCCCCGGGGTGGCCACAGC
GCCAGCCTCAGACTGGAGGGCAAGGGGTTCCTTGAGGGCTGCAGTTCTACTCAGGCTGGTGGAGAACTCTGGCT
TTTGAAGCGAGAGTAAAAAGCTAATGACGAGGAACCGAAAAATCGCGAGTGTTTCGCGGGTAACCTGGGGTTGAG
GGCCAAAATATTTGGAATGAAGGACTTGGCCCTATTTAAGGCAGATTTTACAGAGCGCACCTCAAACGTACAAGT
CAGTAGGACTCCTTATTTGGCGTGACCCGACCTGGCCGCGGAGCCTGCATTTCTCGCAGCCTCTCAGTGCCCTC
CAGCCCCGCGACCATGTGGCCACAATCCACGCTTCTCCGGATCGCGGTGCGCCGGAACCACGGAGGATGATGCCA
GTTACTTGCTTTACCTTTTTCAGGGCTGGCTCCTGATCCACTTTGGGGGAGGAGAACATGAGTAGATAATTTACAGG
GTGCAGCCCAATCTGCCAGACTTAAAAAAACCATCTTGTTGCTTTTGAGGTGCTGCTTAATATCAAACATGCGGT
GCCATGAAGGGACCTTTGGGGGTGTAATAGGAGTTAACCCCTGCGCTCTCTTTGCAACTGTCTCTCTCTCAGA
GTGGTGGGGGAAGGCTGTACGACACGGGTGGGGAAAGGAGGTGGGGGCGGGGAGTATTGAATGGTGGTGGAAAGGG
TAGAGAGGCGCGGAGTGAACCCACGCCCTGTCTAAAGTGTATTTTCAGAGCCGGCCCCGCTCTCTCGGTTCAA
GGTCACTGTTTTCTGGGCACGCACTGGGTTGCGGGACAGAGTAGCCAGTTTCTGCCGGTGCTCGGAGAAGAGCGC
AGTGTTTTGCAAGTGCTGGAGTCTCCTGAGGACACGCGCGTCGCCGCCACCGCGGGTGTTGGGAAAGCGCGGACGT
GCTGGGCGTCTGTGCTTCGGTAGGCGACCAACCGCCCCCTGGCCGCGCTCCGGGCTTTCAGGAAACTCCCGAGACC
GGGCCCTGGGTTCTCTCTCTCTACTCGGCTCTGCAGTCTTACTCAAGCGGGTGGCTCTGGGATCCTGGGGGCT
GGGTGGGGGCTAGGGAGACGCCATGTGATGGACACTCCAGGGACACACAGCCTAGCACAGCAGCTTATAATGGG
CTCTCCGGGGCCATTTGCAATAACAGCTGCAATTCCCTGGATAGACGAGTTGATTTCTCTCTCTGCCCCCTCCC
CAGCCATGCCAGCTGGCCTTTGTAAGTGCAGGAAACCGAGTAGAAAATGTGACCCTCCAAATGGAGAAGCTGCCA
GCTTTGCCATTGTGAACCATGGTGAAGTGCTTGAACATACTGTTCACTCACTCTAAAGGCGCTGAGACTGTGCT
GTTGTTCTCGTTTTTATAGTCAATGGCTTGTTTCATCATCCAGATGTGGCTACTGACATATCTACACTTCGCACCG
GAGTGTCTGGAATTGTGGCTATCCTGATTATAGGATTTTAACTTAACTGAAATGCCTGCTTTGAATAAATGTGTT
GGGTTTTT

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FIGURE 1074

MPCRREEEEEAGEEAEGESEEDSFLLLQQSVALGSSGEVDRLVAQIGETLQLDAAXDSPASPCGPPGAPLRAPG
PLAAAVPADKARSPAVPLLLPPALAETVGPAPPGVLRALGDRGRVRGRAAPYCVAELATGPSALSPLPPQADLD
GPPGAGKQGIPQPLSGPCRRGWLRGAAASRRLQQRGSQPETRTGDDDPHRLQLVLSGNLIKEAVRRLHSRRL
QLRAKLPQRPLLGPLSAPVHEPPSPRSPRAACSDPGASGRAQLRTGDGVLVPGS

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FIGURE 1075

GGGGGGGCGGGGCGCCAGCGGGATGCGGTGAAGGGCGAGCGGCGGGCGGCTGCG**ATG**AGTGCCTCTGCGGCC
 ACCGGGGTCTTCGTGCTGTCCCTCTCGGCCATCCCGGTACCTATGTCTTCAACCACCTGGCGGGCCAGCATGAT
 TCCTGGACTATTGTAGGGGTGCTGCCCTCATCCTGTTTCTGGTAGCACTGCTGGCTCGTGTCTCGTCAAAGA
 AAACCACCCCGGGACCCACTGTTCTATGTGTATGCAGTTTTTGGATTTACCAGCGTGGTGAACCTCATCATAGGA
 CTGGAGCAAGATGGAATCATTGACGGGTTCATGACACACTACTTGAGAGAGGGTGAACCGTATCTGAACACCGCA
 TATGGGCACATGATCTGCTACTGGGATGGCTCTGCTCATTATCTGATGTACCTGGTGATGGTGGCAGCCATAGCA
 TGGGAGGAACTTATAGAACCATTGGCCTATATTGGGTTGGATCTATTATTATGAGTGTGTTGTTTTTGTGCCA
 GGAAACATTGTAGGGAAGTATGGAACACGAATTTGCCCTGCTTTTTTCTTAAGCATACCATATACTTGTCTTCCT
 GTCTGGGCTGGTTTCAGAATCTATAATCAGCCATCAGAAAATTATAATTACCCCTCAAAGGTTATTCAAGAAGCC
 CAAGCGAAAGACCTGCTGAGAAGACCATTTGATTTAATGTTGGTTGTGTGTCTCCTCCTGGCAACTGGATTTTGC
 CTGTTTCAAGGTTTGTATTGCTTTGGATTGCCCATCTGAGCTCTGCCGATTATATACGCAATTTCAAGAGCCCTAT
 CTAAAGGATCCTGCTGCTTATCCTAAAATTCAGATGCTGGCATATATGTTCTATTCTGTTCTTACTTTGTGACT
 GCACTGTATGGCTTAGTGGTTCTGGATGTTTCTGGATGCCTGACATCACATTGATACATGCTGGAGGTCTGGCT
 CAGGCTCAGTTTTTCTCACATTGGTGCATCTCTTCATGCTAGAACTGCTTATGTCTACAGAGTCCCTGAAGAAGCA
 AAAATCCTTTTTTTTAGCATTAAACATAGTATATGGAGTTCTTCCTCAGCTCTTGGCCTATCGTTGTATCTACAAA
 CCAGAGTTCTTCATAAAAACAAAGGCAGAAGAAAAAGTGGAA**TAAAA**ATATTACTTCATGTTCTCCTTTCTAAA
 TTACTAACTTTTGTATATACTGGTACTGATATTTTGTCCCATTTCACTCTCTTCTCATACGTGAGTACTTAAGAAT
 ATGTACATTCTTGCTCTGCACTGTATGTGTGAGCTATATGGTATTGTGTAAATTTTTTTTGAAGGAAAATGGAAA
 TTCTTGAGAAACAGTTTGTTTAAAGAAATATATTCAAATCATTTGTGAATAAACTTGATCATCCATCTCAAAAA
 AAAAAAAAAAAAAAAAAAAAA

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FIGURE 1076

MSASAATGVFVLSLSAIPVTYVFNLHAAQHDSWTIVGVAALILFLVALLARVLVKKRPPRDPLFYVYAVFGFTSV
VNLIIGLEQDGIIDGFMTHYLREGEPYLNTAYGHMICYWDGSAHYLMYLMVAAIAWEETYRTIGLYWVGSIIIMS
VVVFVPGNIVGKYGTRICPAFFLSIPYTCLPVWAGFRIYNQPSENYNYPISKVIEAQAKDLLRRPFDLMLVVCLL
LATGFCLFRGLIALDCPSELCLRYTQFQEPYLDPAAYPKIQMLAYMFYSVPYFVTALYGLVVPGCWMPDITLI
HAGGLAQAFSHIGASLHARTAYVYRVPEEAKILFLALNIVYGVLPQLLAYRCIYKPEFFIKTKAEEKVE

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FIGURE 1077

GGCTGCCGGGGAGGCCAGAGCGTGGAGCGCTGCGCGGCGCGGCGGCCCGGGCCCTCGAGACGGGGACGGACACACC
AGCCCCCTCAGATAACCACTTGGCCACTCCCGCTGAGGCCACTCCCACTGCGTGGCTGAAGCCTCGAGGTCACCAGG
CGGAGGCGCGGAGATGCCCCCTGCATCAGCTGGGGGACAAGCCGCTCACCTTCCCCAGCCCCAACTCAGCCATGGA
AAACGGGCTTGACCACACCCACCCAGCAGGAGGGCATCCCCGGGCACACCCCTGAGCCCCGGCTCCCTCCGCTC
CGCTGCCCATAGCCCCCTGGACACCAGCAAGCAGCCCCCTCTGCCAGCTCTGGGCCGAGAAGCATGGCGCCCCGGG
GACCCATGAGGTGCGGTACATCTCGGCCGGGCAGAGCGTGGCGTGGCGTGGTGGGCCTTCGCACCGCCGTGCCT
GCAGGTCTCAACACGCCCAAGGGCATCTGTCTTCTTCTGTGTGCGGCCGATTCTTCAGAGGGGATGACTGTGAA
TGGCTTCATCAACACAGTCATCACCTCCCTGGAGCGCCGCTATGACCTGCACAGCTACCAGAGCGGGCTCATCGC
CAGCTCCTACGACATTGCCGCCTGCCTCTGCCTCACCTTCGTACAGCTACTTCGGGGGCTCAGGGCACAAGCCGCG
CTGGCTGGGCTGGGGCGTGTGCTTATGGGCACGGGTTCGTGGTGTTCGCGCTGCCCCACTTCACGGCTGGCCG
CTATGAGGTGGAGTTGGACGCGGGTGTGAGGACGTGCCCTGCCAACCCCGCGCGGTGTGTGCGGACAGCACCTC
GGGCCTGTCCCCTACCAGCTGGTCTTCATGCTGGGCCAGTTCTTGCATGGCGTGGGTGCCACACCCCTCTACAC
GCTGGGCGTACCTACCTGGATGAGAAGCTCAAGTCCAGCTGCTCGCCGCTCTACATTGCCATCTTCTACACAGC
GGCCATCCTGGGCCAGCTGCCGGCTACCTGATTGGAGGTGCCCTGCTGAATATCTACACGGAATGGGCCGACG
GACGGAGCTGACCACCGAGAGCCCACTGTGGGTTCGGCGCTGGTGGGTTCGCTTCTGGGCTCTGGGGCCGCTGC
TTTCTTACCAGCGTTCCCATCTTGGTTACCTTCGGCAGCTGCCAGGCTCCCAGCGCTACGCGGTTCATGAGAGC
GGCGGAAATGCACCAAGTTGAAGGACAGCAGCCGTGGGGAGGCGAGCAACCCGGACTTTGGGAAAACCATCAGAGA
CCTGCCCTCTCTCCATCTGGCTCTGTGAAGAACCCACGTTTCATCCTGCTCTGCCTGGCCGGGGCCACCGAGGC
CACTCTCATCACCGGCATGTCCACGTTAGCCCCAAGTTCTTGGAGTCCAGTTTCAGCCTGAGTGCCTCAGAAGC
TGCCACCTTGTGGGTACCTGGTGGTGCCAGCGGGTGGTGGCGGCACCTTCCTGGGCGGCTTCTTTGTGAACAA
GCTCAGGCTCCGGGGCTCCGCGGTTCATCAAGTTCTGCCTGTTCTGCACCGTTGTGAGCCTGTGAGGATCCTCGT
CTTCTCACTGCACTGCCCCAGTGTGCCCATGGCGGGCGTACAGCCAGCTACGGCGGGAGCCTCCTGCCCGAAGG
CCACCTGAACCTAACGGCTCCCTGCAACGCTGCCTGCAGCTGCCAGCCAGAACACTACAGCCCTGTGTGCGGCTC
GGACGGCCTCATGTACTTCTCACTGTGCCACGCAGGGTGCCCTGCAGCCACGGAGACGAATGTGGACGGCCAGAA
GGTGTACCGAGACTGTAGCTGTATCCCTCAGAATCTTCTCTGGTTTTGGCCATGCCACTGCAGGGAAATGCAC
TTCAACTTGTGAGAGAAAGCCCCCTCCTTCTGGTTTTTCATATTCGTTGTAATTTTCTTTACATTCTCAGCAGCAT
TCCTGCACTAACGGCAACTCTACGATGTGTCCGTGACCCCTCAGAGATCCTTTGCCCTGGGAATCCAGTGGATTGT
AGTTAGAATACTAGGGGGCATCCCGGGGCCCCATCGCCTTCGGCTGGGTGATCGACAAGGCCTGTCTGCTGTGGCA
GGACCAGTGTGGCCAGCAGGGCTCCTGCTTGGTGTACCAGAATTCGGCCATGAGCCGCTACATACTCATCATGGG
GCTCCTGTACAAGGTGTGGGCGTCTCTTCTTTGCCATAGCCTGCTTCTTATACAAGCCCCCTGTGCGAGTCTTC
AGATGGCCTGGAACTTGTCTGCCCAGCCAGTCTCAGCCCCCTGACAGTGCCACAGATAGCCAGCTCCAGAGCAG
CGTCTGACCACCGCCCGCGCCACCCGGCCACGGCGGGCACTCAGCATTTCCTGATGACAGAACAGTGCCGTGG
GTGATGCAATCACACGGGAACCTTCTATTTGACCTGCAACCTTCTACTTAACCTGTGGTTTTAAAGTCGGCTGTGAC
CTCCTGTCCCCAGAGCTGTACGGCCCTGCAGTGGGTGGGAGGAACCTGCATAAATATATATTTATGGACACACAG
TTTGCATCAGAACGTGTTTATAGAATGTGTTTATACCCGATCGTGTGTGGTGTGCGTGAGGACAACTCCGCAG
GGGCTGTGAATCCCACTGGGAGGGCGGGCGGGCTGCAGCCCGAGGAAGGCTTGTGTGTCCTCAGTTAAACTGTG
CATATCGAAATATATTTTGTATTATTAAGCCTGAAAAAAAAAAAAAAAAAAAAA

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FIGURE 1078

MPLHQLGDKPLTFPSPNSAMENGLDHTPPSRRASPGTPLSPGSLRSAHSPLDTSKQPLCQLWAEKHGARGTHEV
RYISAGQSVACGWAFAPPCLOVLNTPKGILFFLCAAAFLOGMTVNGFINTVITSLERRYDLHSYQSGLIASSYD
IAACLCLTFVSYFGGSGHKPRWLGWGVLLMGTSLSLVFALPHFTAGRYEVELDAGVRTCPANPGAVCADSTSGLSR
YQLVFM LGQFLHGVGATPLYTLGVTYLDENVKSSCSPVYIAIFYTAAILGPAAGYLIGGALLNIYTEMGRRTLT
TESPLWVGAWWVGFLGSGAAFFTAVPILGYPRQLPGSQRYAVMRAAEMHQLKDSSRGEASNPDFGKTIRDLPLS
IWLLLKNPTFILLCLAGATEATLITGMSTFSPKFLESQFSLSASEAATLFGYLVVPAGGGGTFLGGFFVNKLRLR
GSAVIKFLCTVVSLLGILVFSLHCPVPMAGVTASYGGSLLPEGHLNLTAPCNAACSCQPEHYSPVCGSDGLM
YFSLCHAGCPAATETNVDGQKVYRDCSCIPQNLSSGFGHATAGKCTSTCQRKPLLLVFI FVVIFFTLSSIPALT
ATLRCVRDPQRSFALGIQWIVVRILGGIPGPIAFGWVIDKACLLWQDQCGQGSCLVYQNSAMSRYILIMGLLYK
VLGVLFFAIACFLYKPLSESSDGLTCLPSQSSAPDSATDSQLQSSV

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FIGURE 1079

GAGTTCGGGGCCAGCAGCCGTCTACCCGGTGTGCGTTCTGTGTTGTGGCGGCCCTGGATCCGGCGTCAGGGCGA
CCGGGCGGACGAGGTGGAGCCAGAGTCTGTACAGCGGGTTGGTGAAGGGCGCGGGGCCGGGCACGGCGTTGGGAG
TGC GCGGCAGGGACCGGCCAGGCGGGCTGCAGGCACCTCAGAGCCCGGGACACCCCTCAACGTCCGCAGGCGCG
ATGAAGGCACTGATCTTAGTGGGGGGCTATGGGACGCGGCTACGGCCGCTGACGCTGAGCACCCCGAAGCCACTG
GTGGACTTCTGCAATAAGCCCATCTTGCTGCACCAAGTGGAGGCGCTAGCCGCGGCAGGCGTGGACCACGTGATC
CTGGCCGTGAGCTACATGTCGAGGTGCTGGAGAAGGAAATGAAGGCACAGGAGCAGAGGCTGGGAATCCGAATC
TCCATGTCCCATGAAGAGGAGCCTTTGGGGACAGCTGGGCCCCCTGGCGCTGGCCCGTGACCTACTCTCTGAGACT
GCAGACCCTTTCTTCGTCCCTAACAGTGACGTGATCTGCGATTTCCCCTCCAAGCCATGGTGCAGTTCCACCGG
CACCATGGCCAGGAGGGCTCCATCCTGGTGACCAAGGTGGAGGAACCCCTCCAAGTACGGTGTGGTGGTGTGTGAG
GCTGACACAGGCCGCAATCACCGGTTCTGTGGAGAAGCCACAGGTGTTTGTGTCCAATAAGATCAACGCAGGCATG
TACATCCTGAGCCCTGCAGTGCTGCGGCGCATCCAGCTGCAGCCTACGTCCATTGAGAAGGAGGTCTTCCCCATT
ATGGCCAAGGAGGGGCGAGCTATATGCCATGGAGTTACAGGGCTTCTGGATGGACATTGGGCAGCCCAAGGACTTC
CTCACTGGCATGTGCCCTCTTCCTGCAGTCACTGAGGCAGAAGCAGCCTGAGCGGCTGTGCTCAGGCCCTGGCATT
GTGGGCAACGTGCTGGTGGACCCAAGTGCCCGCATCGGCCAGAACTGCAGCATTGGCCCCAATGTGAGCCTGGGA
CCTGGCGTGGTGGTTCGAAGATGGTGTGTGTATCCGGCGGTGCACGGTGCTGCGGGATGCCCGGATCCGTTCCCAT
TCCTGGCTTGAGTCCTGCATTGTGGGCTGGCGCTGCCGCGTGGGTGAGTGGGTAAGCCTGTGGGCTGGGCTGGGT
GGGGAGAGGGGCGGGGAGTGTGCCTGCCTCCCTGACAAGGCCTATCCTCTCCTGGAGGTACGCATGGAGAACGTG
ACAGTGCTGGGTGAGGACGTCATAGTTAATGATGAGCTCTACCTCAACGGAGCCAGCGTGCTGCCCCACAAGTCT
ATTGGCGAGTCAGTGCCAGAGCCTCGTATCATCATG**TGAG**GGGGATGCAGTGGGGCTGGCCGAGCCCCGGTTTTCC
CATCAGCAAGGGGAGTGCTGGCCTGACACATCAGAAGACCCTGGACTTGTCAATTATTTGTCTGGGGGGCACTGGG
TGAAGCTGAAGCTGTTGGACACCTGCCTTCTCATGTGGACATCATCTGGCAGGATCCCTGCTGGGCACACCCAC
AAACCCCACTCCCTCAAGAAGGGCCAGGGCCAGGGCTGTATGGAATAATAATTTAATGCTCACTGTGAAAAAAA
AAAAAAAAAAAAA

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FIGURE 1080

MKALILVGGYGTRLRPLTLSTPKPLVDFCNKPILLHQVEALAAAGVDHVLAVSYMSQVLEKEMKAQEQRIGIRI
SMSHEEEPLGTAGPLALARDLLSETADPFFVLNSDVICDFPFQAMVQFHRHHGQEGSILVTKVEEPSKYGVVVCE
ADTGRIHRFVEKPQVFVSNKINAGMYILSPAFLRRILQPTSIEKEVFPIMAKEGQLYAMELQGFWM DIGQPKDF
LTGMCLFLQSLRQKQPERLCSGPGIVGNVLVDPSARIGQNC SIGPNVSLGPGVVVEDGVCIRRCTVLRDARIRSH
SWLESCIVGWRCRVGQWVSLWAGLGGERGGECACLPDKAYPLLEVRMENVTVLGEDVIVNDELYLNGASVLPKHS
IGESVPEPRIIM

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FIGURE 1081

AAGGCTATTATTACCACCACTGAGTGGCTTAAATAATCCTGTCAACAGCAATCGCCCATTTCCAAAGCCATGGTG
AAACATCTCTGTGCTAATTTCTTTTGTTCCTAATTTTTTTTTTTTGGCAGGTGGTGGGAAATAATCTTT
GTCTTCTTTGGAGTAAACCTTCAACACCGGATTTTTTCTTTAATTATGGATGTAAACCCCAATATCCCCATAAT
TTACATTGGGTCTCGACCAATTGCCTAATTATAAGAGGATATATTTAGGCTCTTATTTTCATCCACACAAAACTT
GTGTAACAGGTAGTTGGAAACATCTGAGGCACCACTTTGATTCTGTTTTGGATGGTCATGTTTTTCTCCTCCGT
TTCCCCAGCATGTCTGCCACCATCCTCATGCACTGCTTCCAAAGTGCCTGGGAGCCTTTATGAGCGTCCCTAAACC
TAAAAGAATCCAGAGGCGGGGCTCGGATGAACCTCGAGATAAGCAAGTGAGCCGCTTCTCCCCTCTAAAGGATG
TTTACACGTGGGTGGCACTCGCTGGAATCCAGCGCTCGGGCAGCCCTGGGAGGACGCGCTCAGCTGCGAGGAGGA
TGGAGAGCAATACATCATCTTTGGAGAATTTAGCGACGGCGCCTGTGAACCAGATCCAAGAAACAATTTCTG
ATAATTGTGTGGTGATTTTCTCAAAAACATCCTGTTCTTACTGTACAATGGCAAAAAAGCTTTTCCATGACATGA
ATGTAACTATAAAGTGGTGGAACCTGGACCTGCTTGAATATGGAAACCAGTTCCAAGATGCTCTTTACAAAATGA
CTGGTGAAAGAACTGTTCCAAGAATATTTGTCAATGGTACTTTTATTGGAGGTGCAACTGACACTCATAGGCTTC
ACAAAGAAGGAAAATTGCTCCCACTAGTTCATCAGTGTTATTTAAAAAAAAGTAAGAGGAAAGAATTTCAGTGA
GTTTATACTAATAAGTTTGCTAGTACAGTGTGAGTTATTTAAAGTGGTAATGCCCGATAATGTCTTTTAAATGTT
TGAGGATGTTTTAAATACATGCATTGTCTTCACGAAGAAGATGTAAAAATAATGAACAATAAATTGCGGTGGAAA
CCTAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 1082

MNPRDKQVSRFSPLKDVTWVALAGIQRSGSPGRTRSAARMESNTSSSLENLATAPVNQIQETISDNCVVIFSK
TSCSYCTMAKKLFHDMNVNYKVVELDLLEYGNQFQDALYKMTGERTVPRIFVNGTFIGGATDTHRLHKEGKLLPL
VHQCYLKKSRRKEFQ

FIGURE 1083

FIGURE 1083

[illegible]

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FIGURE 1084

MPAERPAGSGGSEAPAMVEQLDTAVITPAMLEEEEQLEAAGLERERKMLEKARMSWDRESTEIRYRRLQHLLKS
NIYSKFLLTKEQQQLEEQKKKEKLERKKESLKVKKGKNSIDASEEKPVMRKKRGREDESYNISEVMSKEEILSV
AKKNKKENEDENSSSTNLCVEDLQKNKDSNSIIKDRLSETVRQNTKFFFDVVRKCNQGPVFPQPKHFTGGVMRW
YQVEGMEWLRMLWENGINGILADEMGLGKTVQCIATIALMIQRGVPGPFLVCGPLSTLPNWMAEFKRFTPDIPM
LYHGTQEERQKLVRNIYKRKGTQIHPVVITSFEIAMRDRNALQHCYWKYLIVDEGHRIKNMKCRLIRELKRFNA
DNKLLLTGTPLQNNLSELWLLNLLPDVFDLKSFSWFDITSLSETAEDIIAKEREQNVLMHLHQILTPFLLR
RLKSDVALEVPPKREVVVYAPLSKKQEIFYTAIVNRTIANMFGSSEKETIELSPTGRPKRRTRKSINYSKIDDFP
NELEKLISQIQPEVDRERAVVEVNIPVESEVNLKLQNMMLLRKCCNHPYLIEYPIDPVTQEFKIDEELVTNSGK
FLILDRMLPELKKRGHKVLLFSQMTSMLDILMDYCHLRDFNFSRLDGSMYSEREKNMHSFNTDPEVFI FLVSTR
AGGLGINLTAADTVIIYSDWNPQSDLQAQDRCHRIGQTKPVVVYRLVTANTIDQKIVERAAAARKLEKLIHKN
HFKGGQSGNLNLSKNFLDPKELMELLKSRDYEREIKGSREKVISDKDLELLLDRLIDQMNASGPIKEKMGIFKI
LENSEDSSPECLF

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FIGURE 1085

GAATTCCGGCAAAATGCATGACAGTAACAATGTGGAGAAAGACATTACACCATCTGAATTGCCTGCAAACCCAGG
TTGTCTGCATTCAAAAGAGCATTCTATTAAAGCTACCTTAATTTGGCGCTTATTTTTCTTAATCATGTTTCTGAC
AATCATAGTGTGTGGAATGTTGCTGCTTTAAGCGCAATAAGAGCTAACTGCCATCAAGAGCCATCAGTATGTCT
TCAAGCTGCATGCCCAGAAAGCTGGATTGGTTTTCAAAGAAAGTGTTTCTATTTTTCTGATGACACCAAGAACTG
GACATCAAGTCAGAGGTTTTGTGACTCACAAGATGCTGATCTTGCTCAGGTTGAAAGCTTCCAGGAACCTGAATTT
CCTGTTGAGATATAAAGGCCCATCTGATCACTGGATTGGGCTGAGCAGAGAACAAGGCCAACCATGGAAATGGAT
AAATGGTACTGAATGGACAAGACAGTTTCCTATCCTGGGAGCAGGAGAGTGTGCCTATTTGAATGACAAAGGTGC
CAGTAGTGCCAGGCACTACACAGAGAGGAAGTGGATTTGTTCCAAATCAGATATACATGTCTAGATGTTACAGCA
AAGCCCCAACTAATCTTTAGAAGCATATTGGAAGTGATAACTCCATTTTAAATGAGCAAAGAATTTATTTCTTA
TACCAACAGGTATATGAAAATATGCTCAATATCACTAATAACTGGGAAAATACAAATCAAATCATAGTAAATA
TTACCTGTTTTTCATGGTGCTAATATTACCTGTTCTCCCACTGCTAATGACATACCCGAGAATGAGTAATTTATAA
ATAAAAGAGATTTAATTGAAAAAAA

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FIGURE 1086

MHDSNNVEKDITPSELPANPGCLHSKEHSIKATLIWRLFFLIMFLTIIVCGMVAALSAIRANCHQEPSVCLQAAC
PESWIGFQRKCFYFSDDTKNWTSSQRFCDSDADLAQVESFQELNFLRLRYKGPSDHWIGLSREQGQPWKWINGTE
WTRQFPILGAGECAYLNDKGASSARHYTERKWICKSKSDIHV

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FIGURE 1087A

CTCCTCCTCCGTCTCCTCCTCTCTCTCTCATCTGCTGTGGTT**ATG**GCCTGTGCTGGAGCACAAAAGAGTCTCCG
CGGTGGAGGTCTGCGTTGCTCTTGCTTTTCTCGCTGGGGTGTACGGAAATGGTGCTCTTGCAGAACATTCTGAA
AATGTGCATATTTTCAGGAGTGTCAACTGCTTGTGGAGAGACTCCAGAGCAAATACGAGCACCAAGTGGCATAATC
ACAAGCCCAGGCTGGCCTTCTGAATATCCTGCAAAAATCAACTGTAGCTGGTTCATAAGGGCAAACCCAGGCGAA
ATCATTACTATAAGTTTTCAGGATTTTGATATTCAAGGATCCAGAAGGTGCAATTTGGACTGGTTGACAATAGAA
ACATACAAGAATATTGAAAGTTACAGAGCTTGTGGTTCCACAATTCCACCTCCGTATATCTCTTACAAGACCAC
ATCTGGATTAGGTTTCATTTCGGATGACAACATCTCTAGAAAGGGTTTCAGACTGGCATATTTTTCAGGGAAATCT
GAGGAACCAAATTGTGCTTGTGATCAGTTTCGTTGTGGTAATGGAAAGTGTATACCAGAAGCCTGGAAATGTAAT
AACATGGATGAATGTGGAGATAGTTCGGATGAAGAGATCTGTGCCAAAGAAGCAAATCCTCCAAGTCTGCTGCT
TTTCAACCCTGTGCTTACAACCAGTTCAGTGTTTATCCCGTTTACCAAAGTTTACACTTGCCTCCCCGAATCT
TTAAATGTGATGGGAACATTGACTGCCTTGACCTAGGAGATGAGATAGACTGTGATGTGCCAACATGTGGGCAA
TGGCTAAAATATTTTATGGTACTTTTAATTCTCCCAATTATCCAGACTTTTATCCTCCTGGAAGCAATTGCACC
TGGTTAATAGACACTGGTGATCACCGTAAAGTCATTTTACGCTTCACTGACTTTAAACTTGATGGTACTGGTTAT
GGTGATTATGTCAAAAATATATGATGGATTAGAGGAGAATCCACACAAGCTTTTGCCTGTGTTGACAGCTTTTGAT
TCTCATGCACCTCTTACAGTTGTTTCTTCTTCTGGACAGATAAGGGTACATTTTGTGCTGATAAAGTGAATGCT
GCAAGGGGATTTAATGCTACTTACCAAGTAGATGGGTTCTGTTTGCCATGGGAAATACCCTGTGGAGGTAAGTGG
GGGTGTTTACTGAGCAGCAGCGTTGTGATGGGTATTGGCATTGCCCAAATGGAAGGGATGAAACCAATTGTACC
ATGTGCCAGAAGGAAGAATTTCCATGTTCCCGAAATGGTGTCTGTTATCCTCGTTCTGATCGCTGCAACTACCAG
AATCATTGCCCAAATGGCTCAGATGAAAAAACTGCTTTTTTGGCAACCAGGAAATTTCCATTGTAAAAACAAT
CGTTGTGTGTTTGAAGTTGGGTGTGTGATTCTCAAGATGACTGTGGTGATGGCAGCGATGAAGAAAATTGCCCA
GTAATCGTGCCTACAAGAGTCATCACTGCTGCCGTCATAGGGAGCCTCATCTGTGGCCTGTTACTCGTCATAGCA
TTGGGATGTACTTGTAAAGCTTTATTCTCTGAGAATGTTTGAAGAAGATCATTGAAACACAGTTGTCAAGAGTG
GAAGCAGAATTGTTAAGAAGAGAAGCTCCTCCCTCGTATGGACAATTGATTGCTCAGGGTTTAATTCCACCAGTT
GAAGATTTTCTGTTTGTTCACCTAATCAGGCTTCTGTTTTGGAAAATCTGAGGCTAGCGGTACGATCTCAGCTT
GGATTTACTTCAGTCAGGCTTCCTATGGCAGGCAGATCAAGCAACATTTGGAACCGTATTTTTAATTTTGCAAGA
TCACGTCATTCTGGGTCATTGGCTTTGGTCTCAGCAGATGGAGATGAGGTTGTCCCTAGTCAGAGTACCAGTAGA
GAACCTGAGAGAAATCATACTCACAGAAGTTTGTTTTCCGTGGAGTCTGATGATACAGACACAGAAAATGAGAGA
AGAGATATGGCAGGAGCATCTGGTGGGGTTGCAGCTCCTTTGCCTCAAAAAGTCCCTCCCACAACGGCAGTAGAA
GCGACAGTAGGAGCATGTGCAAGTTCCCTCAACTCAGAGTACCCGAGGTGGTCATGCAGATAATGGAAGGGATGTG
ACAAGTGTGGAACCCCCAAGTGTGAGTCCAGCACGTCACCAGCTTACAAGTGCACCTCAGTCGTATGACTCAGGGG
CTACGCTGGGTACGTTTTACATTAGGACGATCAAGTTCCCTAAGTCAGAACCAGAGTCTTTTGAGACAACCTTGAT
AATGGGGTAAGTGAAGAGAAGATGATGATGATGTTGAAATGCTAATTCCAATTTCTGATGGATCTTCAGACTTT
GATGTGAATGACTGCTCCAGACCTCTTCTTGATCTTGCTCAGATCAAGGACAAGGGCTTAGACAACCATATAAT
GCAACAAATCCTGGAGTAAGGCCAAGTAATCGAGATGGCCCCGTGTGAGCGCTGTGGTATTGTCCACACTGCCAG
ATACCAGACACTTGCTTAGAAGTAACACTGAAAAACGAAACGAGTGATGATGAGGCTTTGTACTTTGT**TAGG**TA
CGAATCACATAAGGGAGATTGTATACAAGTTGGAGCAATATCCATTTATTATTTGTAACCTTTACAGTTAAACTA
GTTTTAGTTTTAAAAAGAAAAATGCAGGGTGATTTCTTATTATTATATGTTAGCCTGCATGGTTAAATTCGACAA
CTTGTAACCTCTATGAACCTTAGAGTTTACTATTTTAGCAGCTAAAAATGCATCATATTCATATTGTTCAATAAT
GTCCTTTTCAATTTGTTTCTGATTGTTTTATCCTGATACTGTAGTTCACTGTAGAAATGTGGCTGCTGAAACTCAT
TTGATTGTCAATTTTATCTATCCTATGTTAAATGGTTTGTTTTTACAAAATAATACCTTATTTTAATTGAAACGT
TTATGCTTTTTGCCAACACATCTTGTAACCTTAATATACTAGATGTTAAGGTGTTAATGTACAAAAAAAACCTT
TATACTCACCTGCGTTTTTCAATTTGTTTGACATTTGTCTATTATTGGATTTTCAATATCATATGAACCTGTGAGTGG
GAAACAAACTGTCTAAAAATTTTCTCTTACGTTTAAACATACAATCATGTGAAATTTAGGCAGAGTTCGATAAAT
TACTGGCAAAAACAAAACCTCTTTTATAAAGATTTTCTAATGTTGACTTTAATACTCTAACATGGTACAAACCAA
TGGTAAAAATCCCAAGTCATTTCTTTTTTCTCTCTATTTAGCAACAGAATTAAGTGGATGAAGATATTCTACTAT
GCATTAAATCTTGAACCTTTATAAAACATGTACAAAAATTGTACAAGATAAGTTCACCTGGTAATGTCTTTCCCT
AATACAGGGTTGCGCTTGCAATGGACCCTAGGGATTTGCACTAAAATTATATCAAGGTCTCAGATGAGCTTAGTG
CACAAGCACTATCACTTTAAATACTATTATTTGCTACCACAGCAACTATATATTTCCATAGCTTTTGGCTGGGGG

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FIGURE 1087B

CGGGGGACATTTTTATTACAACCTTGAAATTGCTTTGCTGGTTTCATATTTATTTGTTGTATTTAAAAAATACATT
GTTGTAAGAGTGATTTTTTCAATATATTTTATTCTGGGGGGGATCATGCTACACTCTCAAAGAAAATTAAGAA
ATCATTGAGATCATCCCCCTTTTAAAGTAGTGTGAATTGCAAAACCCAACATATTTTTTTTACTGTCAGTTGCG
GTTTATTTATTTCTTTAACTGTCTGTTTTAGTAGTTTAAATGATTATGAAAAATGTATCTGTGTGTGATTTGCTATT
TATTAAATTTTAAAGTACTTTGCTGAATGTCATTTTAAAGCATGTTTGAAGTCTTGTGTATTTGTCTGTGTTAATG
CTGTCAGGAGGAAGTACTGACTAAGATGTTTTAATATGTATCAAAAATTTAAATGATTTTTTTTATTGCCTTGAGGTA
CTTTTTAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 1088

MACRWSTKESPRWRSALLLLFLAGVYGNGLAEHSENVHISGVSTACGETPEQIRAPSGIITSPGWPSEYPAKIN
CSWFIRANPGEIITISFQDFDIQGSRRCNLDWLTETIYKNIESYRACGSTIPPPYISSQDHIWIRFHSDDNISRK
GFRLAYFSGKSEEPNCACDQFRCGNGKCIPEAWKCNNMDECGDSSDEEICAKEANPPTAAAFQPCAYNQFQCLSR
FTKVYTCLPESLKCDGNIDCLDLGDEIDCDVPTCGQWLKYFYGTFNPNYPDFYPPGSNCTWLIDTGDHRKVILR
FTDFKLDGTGYGDYVKIYDGLEENPHKLLRVLTAFDASHAPLTVVSSSGQIRVHFCADKVNAARGFNATYQVDGFC
LPWEIPCGGNWGCYTEQQQRCDGYWHCPNGRDETNCMCQKEEFPCSRNGVCYPRSDRCNYQNHCPNGSDEKNCFF
CQPGNFHCKNNRCVFESWVCDSDDCGDSDEENCPVIVPTRVITAAVIGSLICGLLLVIALGCTCKLYSLRMFE
RRSFETQLSRVEAELLRREAPP SYGQLIAQGLIPPVEDFPVCSNPQASVLENLRLAVRSQLGFTSVRLPMAGRSS
NIWNRIFNFARSRHSGSLALVSADGDEVVPSQSTSREPERNHTHRSLFSVESDDTD TENERRDMAGASGGVAAPL
PQKVPPTTAVEATVGACASSSTQSTRGGHADNGRDVTSVEPPSVSPARHQLTSALSMTQGLRWVRFTLGRSSSL
SQNQSPLRQLDNGVSGREDDDDVEMLIPISDGSSDFDVNDCSRPLLDLASDQGQGLRQPYNATNPGVRPSNRDGP
CERCGIVHTAQIPDTCLEVTLKNETSDDEALLC

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FIGURE 1089

GGGGGTGGCGGGGACGCGAGTGGCGGCCGCGGGGCCCCGGACAAGGGTCCGCAGAGCTGCAGCCTTCGAGGGCCA
GCCCTCTCCGAGTCCGGGGCTGGGTCCCACCAGTGACAAGGCGGCAGCCCCGCGCACACCAAAGAGAAAGCGGCT
GTGGCGGCAGCGGCAGCCCCAGCCATGCTGTGTTATGTGACGAGGCCGGACGCGGTGCTGATGGAGGTGGAGGTG
GAGGCGAAAGCCAACGGCGAGGACTGCCTCAACCAGGTGTGCAAGCGACTGGGAATCATAGAAGTTGACTATTTT
GGACTGCAATTTACGGGTAGCAAAGGTGAAAGTTTATGGCTAAACCTGAGAAACCGGATCTCCCAGCAGATGGAT
GGGCTAGCCCCCTTACAGGCTTAAACTTAGAGTCAAGTTCTTCTGTGGAGCCTCATCTCATCTTACAGGAGCAGACT
AGGCATATCTTTTCTTGACATCAAGGAGGCCCTCTTGGCAGGCCACCTCTTGTGTTCCCCAGAGCAGGCAGTG
GAACTCAGTGCCCTCCTGGCCCAGACCAAGTTTGGAGACTACAACCAGAACACTGCCAAGTATAACTATGAGGAG
CTCTGTGCCAAGGAGCTCTCCTCTGCCACCTTGAACAGCATTGTTGCAAAACATAAGGAGTTGGAGGGGACCAGC
CAGGCTTCAGCTGAATACCAAGTTTTCAGATTGTGTGCGCAATGGAAAACTATGGCATAGAATGGCATTCTGTG
CGGGATAGCGAAGGGCAGAGACTGCTCATTGGGGTTGGACCTGAAGGAATCTCAATTTGTAAAGATGACTTTAGC
CCAATTAATAGGATAGCTTATCCTGTGGTGCAGATGGCCACCCAGTCAGGAAAGAATGTATATTTGACGGTCACC
AAGGAATCTGGGAACAGCATCGTGCTCTTGTTTAAATGATCAGCACCAGGGCGGCCAGCGGGCTCTACCGAGCG
ATAACAGAGACGCACGCATTCTACAGGTGTGACACAGTGACCAGCGCCGTGATGATGCAGTATAGCCGTGACTTG
AAGGGCCACTTGGCATCTCTGTTTCTGAATGAAAACATTAACTTGGCAAGAAATATGTCTTTGATATTAAAAGA
ACATCAAAGGAGGTGTATGACCATGCCAGGAGGGCTCTGTACAATGCTGGCGTTGTGGACCTCGTTTCAAGAAGC
AACCAGAGCCCTTCACACTCGCCTCTGAAGTCCTCAGAAAGCAGCATGAACTGCAGCAGCTGCGAGGGCCTCAGC
TGCCAGCAGACCCGGGTGCTGCAGGAGAAGCTACGCAAGCTGAAGGAAGCCATGCTGTGCATGGTGTGCTGCGAG
GAGGAGATCAACTCCACCTTCTGTCCCTGTGGCCACACTGTGTGCTGTGAGAGCTGCGCCGCCAGCTACAGTCA
TGTCCCGTCTGCAGGTGCGTGTGGAGCATGTCCAGCACGTCTATCTGCCAACGCACACCAGTCTTCTCAATCTG
ACTGTAATCTAACTCTGTTGTGCTTTTGTGGACTTGGCATGTTTCCATGAACTGCACTATTATAAACTATTAAAA
TGATAGATGTTGGAGAAAGTAATTATTCCAACACCCATCTGCCCATGCGATGTTAAAAA

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FIGURE 1090

MLCYVTRPDVLMEEVEEAKANGEDCLNQVCRRLGII EVDYFGLQFTGSKGESLWLNLRNRISQQMDGLAPYRLK
LRVKFFVEPHLILQEQTRHIFFLHIKEALLAGHLLCSPEQAVELSALLAQTKFGDYNQNTAKYNYEELCAKELSS
ATLNSIVAKHKELEGTSQASAEYQVLQIVSAMENYGIEWHSVRDSEGQRLLIGVGPEGISICKDDFSPINRIAYP
VVQMÀTQSGKNVYLTVTKEGNSIVLLFKMISTRAASGLYRAITETHAFYRCDTVTSVMMQYSRDLKGHLASLF
LNENINLGKKYVFDIKRTSKEVYDHARRALYNAGVVDLVSRSNQSPSHSPLKSSESSMNCSSCEGLSCQQTRVLQ
EKLRLKLEAMLCMVCCEEEINSTFCPCGHTVCCESCAAQLQSCPVCRSRVEHVQH VYLPHTHTSLLNLTVI

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FIGURE 1091

GGAAGCTCAGCAGTGTCCACTGTGCGCCATTCTTGGCCATAGAAAAACAATGTATTTGAATTTTGATGTAAGCATA
GCAAATTGAAGATGAAGATGACACGTTGATTTCTTGTTTGAAATTAACCAAGTCCCGAGAAAAGAAAGTGAATAG
TGTTAGCACGAGGAGGAAGGAAGAAATGGAGATTAGATTGGATACTCTTTCTGCATCACTGGGTAGATCCAGCAC
TTTAAATGACTGCAACTTGGAAGATAAATTAGCTTGGTATGAAGGTGAAGCTTACATGTGGCATCACTGGAAGCC
TTTTCTGAAAACCCCTCTCTGGACATGTCTTGATTTCCAAATAGCACAAAGTTGGACCCTGGGACTACTGCTCCTC
TTGTATTCGCCACACACGTCTCAAGTCTTCTGCTCAGATATGGATCTCCTACATTCATGGCGAAGCAGCAGTTT
TGGAATTTTCGATCGTTTTTCGGAATAATTCTTTATCAAAACCAGATGATTCAACTGAGGCACATGAAGGAGATCC
CACAAATGGAAGTGGAGAACAAAGTAAACTTCAAATAATGGAGGCGGTTTGGGTAAAAAATGAGAGCTATTTTC
ATGGACAATGAAGAAAAAAGTGGGTAAAAAGTACATCAAAGCCCTTTCTGAGGAAAAGGATGAGGAAGATGGAGA
GAATGCCCCACCCATATAGAAACAGTGACCCTGTGATTGGGACCCACACAGAGAAGGTGTCCCTCAAAGCCAGTGA
CTCCATGGATAGTCTCTACAGTGGACAGAGCTCATCAAGTGGCATAACAAGCTGTTTCAGATGGTACAAGTAACCG
GGACAGCTTTTCGACTGGATGACGATGGCCCCCTATTTCAGGACCATTCTGTGGCCGTGCCAGAGTGCATACGGATTT
CACGCCAAGTCCCTATGACACTGACTCCCTCAAATCAAGAAAGGAGACATCATAGACATTATTTGCAAAACACC
AATGGGGATGTGGACAGGAATGTTGAACAATAAAGTGGGAACTTCAAATTCATTTATGTGGATGTCATCTCAGA
AGAGGAAGCAGCCCCCAAGAAAATAAAGGCAAACCGAAGGAGTAACAGCAAAAAATCCAAGACTCTGCAGGAGTT
CCTAGAGAGGATTCATCTGCAGGAATACACCTCAACACTTTTGCTCAATGGTTATGAGACTCTAGAAGATTTAAA
AGATATAAAAGAGAGTCACCTCATTGAATTAATATTGAAAACCCAGATGACAGAAGAAGGTTACTATCAGCTGC
TGAAAACCTTCTTGAAGAAGAAATTATTCAAGAGCAAGAAAATGAACCTGAGCCCCTATCCTTGAGCTCAGACAT
CTCCTTAAATAAGTCACAGTTAGATGACTGCCCAAGGGACTCTGGTTGCTATATCTCATCAGGAAATTCAGATAA
TGGCAAAGAGGATCTGGAGTCTGAAAATCTGTCTGACATGGTACATAAGATTATTATCACAGAGCCAAGTGACTG
AACACGCATTCCCAACTATATATCTACAGATGCATTCCATTTTAACTCTTCTTGAGCTAAAACGTCAAATAGGAG
AGGAAGATAAGATAAATATTTGTAATAAAACCTAAAGTTTAAATGTTTAACTCTGAATAATTGTACATAAAATT
TTGTATCTCTAACATTCCAAATTACTGTCAATAAAATATATATTTATTATTTTAAATGCTATGTGTTAATATTTT
ACTTGCTTGTATTAGAAAAGGCAAAATGTAAGACTTTGGTATGTGTGACATATGCTTTATTTGGCTTTATTTTACA
AGTACAGTATCTGCAAAAAACAAAGTAACCTTTTTTTCATACCTGCCAGTTTGAATTTATATATGTTATTGAACA
AATAGTAATAGAGGATTCGCTGTTGAAACAAGTTGTCCAAGCAATGTTATATTCATTTTTTATACTTATTGGGAAA
GTGTGAGTTAATATTGGACACATTTTATCCTGATCCACAGTGGAGTTTTAGTAATTATATTTTGTGATTTCTTC
ATTTTGTCTTCTGGTATAAAAGTAGAGATAATGTGTAGTCACTTCTGATTTAGTGAAACCAATTGTAATAATTGT
GGAAATGTTTTGTCTTTAAGTGTAAATATTTTAAATTTGACATACCCTAATGTTAATAATAAAAGAAGTATTT
GCATAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 1092

MEIRLDTLSASLGRSSTLNDCNLEDKLAWYEGEAYMWHHWKPPENPLWTCCLDFQIAQVGPWDYCSCCIRHTRLK
SSCSDMDLLHSWRSSSFNGFDRFRNNSLSKPDDSTEAEHGDPTNGSGEQSKTSNNGGGLGKKMRAISWTMKKKVG
KKYIKALSEEKDEEDGENAHPYRNSDPVIGTHTEKVS LKASDSMDSLYSGQSSSSGITSCSDGTSNRDSFRLDDD
GPYSGPFCGRARVHTDFTPSPYD TDSLKIKKGDIIIDIICKTPMGMTGMLNNKVGNFKFIYVDVISEEEAAPKKI
KANRRSNSKKS KTLQEFLERIH LQEY TSTLLNGYETLEDLKD IKESH LIELNIENPDDRRRLLSAAENFLEEEI
IQEQENEPEPLSLSSDISLNKSQLDDCPRDSGCYISSGNSDNGKEDLESENLSDMVHKIIITEPSD

FIGURE 1093

CGGGAATCCCTGCAGCTGAGCCTGTCTCTCACGGGACCGGGAAGCTGGAGAGAGCCCCAACCCCTGCCCCGCTGGGG
CCGAGCTCCCTGCTCCTGCAGCAGTCCCATGCCCCACACTCTGAGTCTGCCCTATCCACAGCTGCTGGGCCTCTC
TGTGGCCACCATGGTGACTCTTACCTACTTCGGGGCCCACTTTGCTGTTCATCCGCCGAGCGTCCCTGGAGAAGAA
CCCGTACCAGGCTGTGCACCAATGGGCCTTCTCTGCGGGGTTGAGCCTGGTGGGCCTCCTGACTCTGGGAGCCGT
GCTGAGCGCTGCAGCCACCGTGAGGGAGGCCAGGGCCTCATGGCAGGGGGCTTCCTGTGCTTCTCCCTGGCGTT
CTGCGCACAGGTGCAGGTGGTGTCTGGAGACTCCACAGCCCCACCCAGGTGGAGGACGCCATGCTGGACACCTA
CGACCTGGTATATGAGCAGGCGATGAAAGGTACGTCCCACGTCCGGCGGCAGGAGCTGGCGGCCATCCAGGACGT
GTTTCTGTGCTGTGGGAAGAAGTCTCCTTTCAGCCGTCTGGGGAGCACAGAGGCTGACCTGTGTCAGGGAGAGGA
GGCGGCGAGAGAGGACTGCCTTCAGGGCATCCGGAGCTTCCTGAGGACACACCAGCAGGTGCGCTCCAGCCTGAC
CAGCATCGGCCTGGCCCTCACGGTGTCCGCCTTGCTCTTCAGCTCCTTCCTGTGGTTTGCCATCCGCTGTGGCTG
CAGCTTGGAACGCAAGGGCAAATACACCCTGACCCACGAGCATGTGGCCGCCAGCCCCAGGAGCCCAGCCTCTT
GAGATGCTCCCAGGGTGGACCCACACATTGTCTCCACTCCGAAGCAGTTGCTATTGGTCCAAGAGGATGCTCGGG
TAGTCTTCGGTGGCTGCAGGAGAGCGATGCTGCGCCTCTGCCCCCTCTCCTGCCACCTGGCTGCCCACAGAGCTCT
CCAGGGCAGAAGTCGCGGTGGGCTCAGTGGGTGCCCTGAGCGGGGTCTCTCAGACTGACGTCAGGCCTTGGTGGG
CTGCACTCTCACCTGGAGGCTCCGGGGAAGCATCTGCCTCCAGGACCATTGAGGCTGTTGACAAGTCAACTCCTC
ATGGCTGTAGGACTGAGGTTCCCAAGTCCTTGTCCCTGGTCCTGTGGTCCCTCCACCTTCAAACCAGCAATGGTG
CATTGAGCAAATTGTGGTCAAATATACATCACATCAAATTTACCATCTTAAAAAAA

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FIGURE 1094

MVTLTYFGAHFAVIRRASLEKNPYQAVHQWAFSAGLSLVGLLTLGAVLSAAATVREAQGLMAGGFLCFLAFCAQ
VQVFWRLHSPQTQVEDAMLDTYDLVYEQAMKVSVLWEEVSFQPSGEHRG

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FIGURE 1095

GGAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAATCTCACTCATTGTTCATATATTGGTCTCTG
 AGGTCCCTTCTAGGCTCTGACAACTGGAACTCTGAAAATAGACATATTG**ATGT**CCTTTGACTGTTGGAAACCTTG
 CAGAGCAAGAATTTGTAACCATTGCACGTCCTACCGTGTGCCTGAGGGCACATGTTGAGATATGGATTTCTTAA
 TCGCACTGGCCACGAAAAGTTCAAGAAAAATATGTTTGAGAATTTTCGACACTTTTCAATTTATTCCTGTGTGTATG
 AAGATCGAGAAAAAAAAAATGTATTACCCACCAAAGACATTAATAAGGCTGTGCAATCCTCCAGATTACCTTTGA
 GTGATGATCTTCTAGAATCCTTATTGTCAAGGTTTGAAGACAGTGAAAAACAAATAGATTATAAGTCATTTTTCT
 CTGCCCTGAACTGGAGAAAGAATCCAGCGCCTGAATTGCAACCAGCATCATACCTTAAAGAGAGATGTGAAGATG
 TTTGGCTTGGTATGCCATCACCTATTCCTGCGAAATACATTGACTACTGGACCTTTTTGAAGGACGCGTTTGGCT
 TAGAGGAGGA**TAA**CCATGCCAGTTTTGGTCAATTCTCTATGATTACTTCTCTCAATTTGCCACATTTACTTTA
 GTAGATATAATTTCAATTAACAAAAAGAAACAAGGTTTATATTAAATGGAAATCCATAAACCAACAATTAATC
 CTATTTTGTGATGTTAGTTTTACAGAACATCATGTTACATTGCCGACGTACTGTTACTATTTAAATGCCATCTT
 AAAACATGTTGAATATTTTTATTATATGTATGGTTTATTAATACCAAAAAATCTTCTGATAATTTTGGATCCAAC
 ATAATTTGATTCACTACTATATGAACAGAAAATGACTTTTGAAGGTTATACATGACAATACAAAATCAAATTATA
 TCACAGCAATAAGTTGTGATTCTATTAAACATTTTTTGAAACCTTTTTGACACGTTTATTACTTACATAATTAAGT
 TTTGTAGCAACCCACCTCATCAAATAATTCTTAAACCTCTCTAGAGTAAATATATTTATCTTTTGAACCTTAGTA
 AAGCTATGGGAAGAAAAAGAACCTCCAACACACACACACACACACACACACGACGTGCACACACACTGGAAA
 CATATGCAGTATTTATATTTGTAATGCCCTTTTTTCTATCTAAAGTCAGCTTGTTAGCCTAGGAATATATGCATG
 TGTGTATAATTATAGTTTGACCAAACTTTATTATGTCTAAATATTTACAAATGTGAAAGCTGAAGATTTTGAG
 ATTTTTGTTTTTTTTTTGGTTTGTTTTACACACACATCCACGCGCCCCACCCTAGAGGTTTAAATATTCAGAAA
 CTACAACATTTTCCCCTGCATTTTTCTAGTTCTATTTTTATTTTTCTTCAGCAGAACTCTTGTCATGTAGTGTA
 CATTTGATTAAACCCATAGCCATGTAAAAAAAAAAAAAAAAAAAA

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FIGURE 1096

MSLTVGNLAEQEFVTIARHYRVPEGTCSDMDFLIALAHEKFKKNMFENFDTFIYSCVYEDREKKNVLPTKDIKRL
CKSSRLPLSDDLLESLLSRFEDSEKQIDYKSFFSALNWRKNPAPELQPASYLKERCEDVWLGMPSPIPAKYIDYW
TFLKDAFGLEEE

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FIGURE 1097

ATTTTCATGTTATACTTAATAAAACAAAACATACCTGTATACACACACATTCACTCACATTGAAG**ATG**CAAGATGA
AGAAAGATACATGACATTGAATGTACAGTCAAAGAAAAGGAGTTCTGCCCAAACATCTCAACTTACATTTAAAGA
TTATTCAGTGACGTTGCACTGGTATAAAATCTTACTGGGAATATCTGGAACCGTGAATGGTATTCTCACTTTGAC
TTTGATCTCCTTGATCCTGTTGGTTTTCTCAGGGAGTATTGCTAAAAATGCCAAAAGGAAGTTGTTCAAATGCCAC
TCAGTATGAGGACACTGGAGATCTAAAAGTGAATAATGGCACAAGAAGAAATATAAGTAATAAGGACCTTTGTGC
TTCGAGATCTGCAGACCAGACAGTACTATGCCAATCAGAATGGCTCAAATACCAAGGGAAGTGTTATTGGTTCTC
TAATGAGATGAAAAGCTGGAGTGACAGTTATGTGTATTGTTTGAAAGAAAATCTCATCTACTAATCATACATGA
CCAACTTGAAATGGCTTTTATACAGAAAAACCTAAGACAATTAACTACGTATGGATTGGGCTTAACCTTTACCTC
CTTGAAAATGACATGGACTTGGGTGGATGGTTCTCCAATAGATTCAAAGATATTCTTCATAAAGGGACCAGCTAA
AGAAAACAGCTGTGCTGCCATTAAGGAAAGCAAAATTTTCTCTGAAACCTGCAGCAGTGTTTTCAAATGGATTG
TCAGTAT**TAG**AGTTTGACAAAATTCACAGTGAAATAATCAATGATCACTATTTTTGGCCTATTAGTTTCTAATAT
TAATCTCCAGGTGTAAGATTTTAAAGTGCAATTAAATGCCAAAATCTCTTCTCCCTTCTCCCTCCATCATCGACA
CTGGTCTAGCCTCAGAGTAACCCCTGTTAACAACTAAAATGTACACTTCAAATTTTTACGTGATAGTATAAAC
CAATGTGACTTCATGTGATCATATCCAGGATTTTTATTTCGTCGCTTATTTTATGCCAAATGTGATCAAATTATGC
CTGTTTTTCTGTATCTTGCGTTTTAAATTCTTAATAAGGTCCTAAACAAAATTTCTTATATTTCTAATGGTTGAA
TTATAATGTGGGTTTATACATTTTTTACCCTTTTGTCAAAGAGAATTAACCTTTGTTTCCAGGCTTTTGCTACTCT
TCACTCAGCTACAATAAACATCCTGAATGTTTTCTTAAAAAA

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FIGURE 1098

MQDEERYMTLNVQSKKRSSAQTSQLTFKDYSVTLHWYKILLGISGTVNGILTTLISLILLVSQGVLLKCQKGSC
SNATQYEDTGDLKVNNGTRRNISNKDLCASRSADQTVLCQSEWLKYQGKCYWFSNEMKSWSDSYVYCLERKSHLL
I IHDQLEMAFIQKNLRQLNYVWIGLNFTSLKMTWTWVDGSPIDSKIFFIKGPAKENSCAAIKESKIFSETCSSVF
KWICQY

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FIGURE 1099A

GAAGGCGTCCCGGCATCGGCCAAGATTCTACATTGCTCATCTGGGCATCTGAGCCTCCTTCGAAGTTTCCTGTCA
CAACTGTCCTCTTGACAGCATGGATGAGGAGGAAGACAATCTGTCTCTGCTGACCGCACTGCTGGAAGAAAATGA
GTCAGCCTTGATTGTAATTCAGAAGAAAATAACTTCTTGACGCGGGAAAATGGCGAGCCCGACGCATTTGATGA
GCTCTTTGATGCCGACGGCGACGGTGAATCTTATACAGAAGAGGCTGATGATGGAGAAAACAGGAGAGACAAGAGA
CGAAAAGGAAAATCTGGCCACTCTCTTTGGAGATATGGAGGACTTAACAGATGAAGAAGAAGTTCCCGCATCACA
GTCAACTGAAAATAGGGTCTCTCCCTGCTCCTGCCCCAGGCGAGAGAAAACGAATGAAGAGTTGCAAGAGGAATT
AAGGAATTTGCAAGAGCAAATGAAGGCCTTACAAGAGCAGCTAAAAGTAACAACAATTAACAGACAGCAAGCCC
AGCCCGTCTGCAAAAATCCCCTGAGAAGTCTCCCCGGCCACCTCTTAAGGAGAGGAGATTGAGAGAATTCAGGA
GTCAACATGCTTTTCTGCGGAGCTTGATGTCCCTGCGCTACCAAGAACCAAGAGGGTGGCTCGAACACCAAGCC
TTCACCTCCAGATCCCAAAAGCTCATCTTCAAGGATGACAAGTGCACCCCTCCCAACCCCTACAGACGATTTCTCG
GAACAAACCTAGTGGGATAACTAGAGGTCAAATTGTGGGGACCCCAAGGAAGTTCTGGGGAAACGACTCAACCCAT
CTGTGTGGAAGCCTTCTCTGGTCTGCGGCTCAGGCGGCCTCGAGTATCCTCCACAGAAATGAACAAGAAAATGAC
CGGCCGAAAACCTGATCAGACTGTCTCAGATCAAGGAAAAGATGGCCAGAGAGAAGCTGGAAGAAATAGATTGGGT
GACATTTGGGGTTATATTGAAGAAGGTTACGCCACAGAGTGTGAATAGTGGAAAAACCTTCAGCATATGGAACT
GAATGATCTTCGTGACCTGACACAATGTGTGTCTTGTCTTATTTGGAGAAGTTCACAAAGCGCTCTGGAAGAC
GGAGCAGGGGACTGTCTAGGGATCCTCAATGCCAACCCCATGAAGCCCAAGGATGGTTGAGAGGAGGTGTGTTT
ATCTATCGATCATCCTCAGAAGGTCTTAATTATGGGTGAAGCTCTTGACCTGGGAACCTGTAAAGCCAAGAAGAA
GAATGGAGAGCCGTGCACGCAGACTGTGAATTTGCGTGACTGTGAGTACTGTGAGTACCATGTCCAGGCTCAGTA
CAAGAAGCTCAGTGCAAAGCGTGCGGATCTGCAGTCCACCTTCTCTGGAGGACGAATTCACAAAGAAGTTTGCCCG
CAGAGGCACCAGCCTCAAAGAACGGCTGTGCCAAGATGGCTTTTACTACGGAGGGGTTTCTTCTGCCTCGTATGC
AGCTTCAATTGCAGCAGCTGTGGCTCCTAAGAAGAAGATTCAAACCACTCTGAGTAATCTGGTTGTTAAGGGCAC
AACTTGATCATCCAGGAAACACGGCAAAAACCTCGGAATACCCAGAAGAGCCTGTCTTGCTCTGAGGAGTTCAA
GGAATGATGGACCTGCCGACGTGTGGAGCCAGGAACCTTAAACAACATTTAGCCAAAGCCTCAGCTTCAGGGAT
TATGGGGAGCCCAAAACCAGCCATCAAGTCCATCTCGGCCTCAGCACTCTTGAAGCAACAGAAGCAGCGGATGTT
GGAGATGAGGAGAAGGAAATCAGAAGAATACAGAAGCGATTTCTGCAGAGCTCAAGTGAAGTTGAGAGCCCAGC
TGTGCCATCTTCATCAAGACAGCCCCCTGCTCAGCCTCCACGGACAGGATCCGAGTTCCCCAGGCTGGAGGGAGC
CCCCGCCACAATGACGCCCAAGCTGGGGCGAGGTGTCTTGAAGGAGATGATGTTCTCTTTTATGATGAGTCACC
ACCACCAAGACCAAAAACCTGAGTGTCTTAGCAGAAGCCAAAAGTTAGCTGCTATCACCAAAATTAAGGGCAAAAGG
CCAGGTTCTTACAAAAACAAACCCAAACAGCATTAGAAGAAAACAAAAGGACCCTCAGGACATCCTGGAGGTGAA
GGAACGTGTAGAAAAAAACACCATGTTTTCTTCTCAAGCTGAGGATGAATTGGAGCCTGCCAGGAAAAAAAGGAG
AGAACAACCTTGCTATCTGGAATCTGAGGAATTTAGAAAATCCTAAAAGCAAAATCAAAACACACAGGCATCCT
GAAAGAGGCCCGAGGCTGAGATGCAGGAGCGCTACTTTGAGCCACTGGTGAAAAAAGAACAATGGAAGAAAAGAT
GAGAAACATCAGAGAAGTGAAGTGCCGTGTCTGACATGCAAGACGTGCGCCTATACCCACTTCAAGCTGCTGGA
GACCTGCGTCAGTGAGCAGCATGAATACCACTGGCATGATGGTGTGAAGAGGTTTTTCAAATGTCCCTGTGGAAA
CAGAAGCATCTCCTTGACAGACTCCCGAACAAGCACTGCAGTAAGTGTGGCCTCTACAAATGGGAACGGGACGG
AATGCTAAAGGTATGCCATTTGCGTACTAATTTTTGACTCCTTTTAGTGACCCATGCTAATAATGTGGAACCATC
TCCTATTAAATATTTTCATTTTCTAGGAAAAGACTGGTCCAAAGATAGGAGGAGAACTCTGTTACCAAGAGG
AGAAGAACATGCTAAATTTCTGAACAGCCTTAAATAACCCGAACCTCAGACATTTCCACAGACTTCTGGCCT
CCTGTGACTCTGGAAAGCAAAGGATTGGCTGTGTATTGTCCATTGATTCTGATTGACGCCGTCAAAAACAAATG
CTTGTTAAGCCCATAGCTTTGCCCTGCTTACTTTCTGCCATTGGGTTGGTTGATACCACATTTAACATTGACAT
TTAAGTGGAAAACCAAGTTATCATTGTCTTTCTAAGCTCAGTGTGGATGATTGCATTACTTCATTCACTGAAGT
TTTTGCCCAAAAATTGGAAGGTAAACAGAGAGCTATGTTTCTGTATCTTTTGGTTATAGAGTGTCACTTCTTTA
TCATAACAAAATTTAGTGTTTATACGAACCCAGAGGCAAAAGAATTTGGCTTAATTTCTCACTCCAGGTAAGT
AGCTTAACTTCTGGGCTTCAGTTTTCTCATCTGTAAAATCAGGAAGATTGGACTAAGTGATCCTGAAATGTATTT
TTTAGCACTGGATTTCTACAAATAATAAACTTTCCCATCTAGATAATGATGATCACATAGTCTTGATGTACGGA
CATTAAAGCCAGATTTCTTCATTCAATTCTGTTATCTCTGTTTTACTCTTTGAAATTGATCAAGCCACTGAATC
ACTTTGCATTTCACTTTATATATAGAGAGAGAAAGAAGGCTGTCTGCTCTTACATTATTGTGGAGCCCTGTGATA
GAAATATGTAAAATCTCATATTATTTTTTTTTTAAATTTTTTTTATTTTATGACAGGGTCTCACTATGTCACCT

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FIGURE 1099B

GGCTGGAGTGCAGTAGTGCGATCGCGGCACACTGCAGCCTTGGCTTCCCTGGGCTCAAGCAGTCCTCCACCTCA
 GTCTCCCAAATAGCTAGGACTACAGGCGTGCGTGACCAAGCCCAGCTAATTTTGCATTTTTTGTAGAGATGGGG
 TTTTGCCATGTTGCTCAGGCTGGTCTCAAACCTCCTGAGCACTAGCAATCCACCCACCTCTGTTTCCAAAAA
 AAAAAATGAAAGGTCAACCCCTATGCAAATTACCACAGCAAAGGTTTCATTGAGGAGATTCTTCCATCTGGGCA
 ACCTGGTTTTCCAAATATCATTGACCTAAGTGAATGTTGATACTAGCTAAAGATTGGGTAAATTGGTTGAATTA
 TTGTATTGAAGCTTGAGCTGTAGCTAAAAGTAATTTAGGTTTCCCCTAAGATGTTATTATGTTAGGGACATAACA
 CTTTTGGGAGGTTGTTGTGGGAGATGGTTGATTTAGGTTTTCAAAGCTAGAAATAAAATTTACATGCCTTAGAT
 TTCATAAAATTCGTCTAATTGGGTGGAAGGTGCTGTATCTAACTTGTGTTCCCTCCTAAGGTTATGTCCTAATA
 ACTATTCTTTTAGGAGTATACTTCTACTTTATAGAAGGTTGCTTTTCTTTTAATTTTTCTAACAAAGAAAAGA
 ATAAAGTATTTATTAATAAGAACCAGAAAGCACTTGAAACTGATGTTTTTAATGGCTCATTTAGGGTAGATTTAT
 TTATCTCATTAACTTAAACAGCTATGTGTATGAAATAGGTCACAACAGAACTGAACACCAGGTTGGTGTCTGA
 GCAATCCCTTTCTTATGGGAAAAACAATGTTCTTGTGTTGAACAGAGGGTATCATTGCAGTCAGTATTCACGTGTA
 TATTGTTATATAAGTTGTATAATATGCTTGTAAGGCTGAGGGTGAGCTGTATCTGGATGCCTTTTACAATTTG
 ATTTTAACTTTTAAATAAAATTTAAACATAAAAAAAAAAAAAA

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FIGURE 1100

MDEEEDNLSLLTALLEENESALDCNSEENNFLTRENGEPDAFDELFDADGDGESYTEEADDGETGETRDEKENLA
TLFGDMEDLTDEEEVPASQSTENRVLPAPAPRREKTNEELQEELRNLQEQMKALQEQLKVTTIKQTASPARLQKS
PEKSPRPPLKERRVQRIQESTCFAELDVPALPRTKRVARTPKPSPPDPKSSSSSRMTSAPSQPLQTISRNKPSGI
TRGQIVGTPGSSGETTQPICVEAFSGLRLRRPRVSSTEMNKKMTGRKLIRLSQIKEKMAREKLEEIDWVTFGVIL
KKVTPQSVNSGKTFSIWKLNDLRDLTQCVSLFLFGEVHKALWKTEQGTVVGILNANPMKPKDGSSEVCLSIDHPQ
KVLIMGEALDLGTCKAKKKNGEPCQTQTVNLRDCEYCYHVQAQYKKLSAKRADLQSTFSGGRIPKKFARRGTSK
ERLCQDGFYYGGVSSASYAASIAAAVAPKKKIQTTLNVLVVGKTNLI IQETRQKLGIPQKSLSCSEEFKELMDLP
TCGARNLKQHLAKASASGIMGSPKPAIKSISASALLKQKQRMLEMRRRKSEEIQKRFLQSSSEVESPAVPSSSR
QPPAQPPRTGSEFPRLEGAPATMTPKLGRGVLEGDDVLFYDESPPPRPKLSALAEAKKLAAITKLRAKGQVLTKT
NPNSIKKKQKDPQDILEVKERVEKNTMFSSQAEDELEPARKKRREQLAYLESEEFQKILKAKSKHTGILKEAEAE
MQERYFEPLVKKEQMEEKMRNIREVKCRVVTCKTCAYTHFKLLETVCVSEQHEYHWHHDGVKRFFKCPCGNRSISLD
RLPNKHCSNCGLYKWERDGMMLKVCHLRTNF

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FIGURE 1101

ACCGTCTTCCGCCGCACGTGGATTGAGCGCGATGCCCAAATCCAAGCGCGACAAGAAAGTCTCCTTAACCAAAAC
 TGCCAAGAAAGGCTTGAATTGAAACAAAACCTGATAGAAGAGCTTCGGAAATGTGTGGACACCTACAAGTACCT
 TTTCATCTTCTCTGTGGCCAACATGAGGAACAGCAAGCTGAAGGACATCCGGAACGCCTGGAAGCACAGCCGGAT
 GTTCTTTGGCAAAAACAAGGTGATGATGGTGGCCTTGGGTTCGGAGCCCATCTGATGAATACAAAGACAACCTGCA
 CCAGGTCAGCAAAAGGTTGAGGGGTGAGGTGGGTCTCCTGTTACCAACCGCACAAAGGAAGAGGTGAATGAGTG
 GTTCACGAAATACACAGAAATGGACTACGCCCAGCTGGTAACAAAGCAGCTTTCCTGTGAGCCTGGATCCAGG
 GCCCCTGGAGCAGTTCCTCCACTCCATGGAGCCACAGCTCAGGCAGCTGGGCCTGCCACCGCCCTCAAGAGAGG
 TGTGGTGACTCTGCTGTCTGACTACGAGGTGTGCAAGGAGGGCGATGTGCTGACCCAGAGCAGGCTCGCGTCCT
 GAAGCTTTTGGGTATGAGATGGCTGAATTCAAGGTGACCATCAAATACATGTGGGATTACAGTCGGGAAGGTT
 CCAGCAGATGGGAGACGACTTGCCAGAGAGCGCATCTGAGTCCACAGAAGAGTCAGACTCAGAAGATGATGACTG
 AAAGGGACTCGGGACTGAAGGTCTCCTGGAAGCTTCTGGGTCTCACTGGACCATCAGGACTGCTGCCGCCCCCTCT
 GGAGAGAGCAGCTTTTTATTGTCTGTAGACAGGGAACATGATGGGCACTGACCTCCTGTAAAGAATAAACTGT
 GGGCCGGGCGCGGTGGCTCACGCCTGGAATCCCAGCACTTTGGGAAGCCGAGGTGGGCAGATCATAAGGTCAGGA
 GATTAAGACCATCCTGGCTAACACGGTGAAACCCCGTCTCTACTAAAAATAGAAAAAAAAGTAGTTGGGCATAG
 TGGCATGTGCCTGTAGTCCCAGCTACTCAGGAGGCTGAGGCAGGAGAATCACTTGAACCCGGGAGGTGGAGGTTG
 CCGTGAGTTGAGATTGGACCACTGCTCTCCAGCCTGGGCAACAGAGTAAACTCTGTCCC

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FIGURE 1102

MPKSKRDKKVSLTKTAKKGLELKQNLIEELRKCVDTYKYLFI~~FS~~VANMRNSKLKDIRNAWKHSRMFFGKNKVMV
ALGRSPSDEYKDNLHQVSKRLRGEVGLLFTNRTKEEVNEWFTKYTEM~~D~~YARAGNKA~~A~~FTVSLDPGPLEQFPHSME
PQLRQLGLPTALKRGVVTLLSDYEVCKEGDVLTP~~EQ~~ARVLKLF~~GY~~EMAEFKVTIKYMWDSQSGRFQ~~Q~~MGDDL~~P~~ES
ASESTEESDSEDD

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FIGURE 1103

GAGGCGGGAGGATGAAGTTGATTGACTATGGTCTCTCCGGCTACCAGGAAGAGTCTGCCGAAGGTGAAGGCCATG
GACTTCATCACCTCCACAGCCATCCTGCCCCTGCTGTTTCGGCTGCCTGGGCGTCTTCGGCCTCTTCCGGCTGCTG
CAGTGGGTGCGCGGGAAGGCCTACCTGCGGAATGCTGTGGTGGTGATCACAGGCGCCACCTCAGGGCTGGGCAAA
GAATGTGCAAAAGTCTTCTATGCTGCGGGTGCTAAACTGGTGCTCTGTGGCCGGAATGGTGGGGCCCTAGAAGAG
CTCATCAGAGAACTCACCGCTTCTCATGCCACCAAGGTGCAGACACACAAGCCTTACTTGGTGACCTTCGACCTC
ACAGACTCTGGGGCCATAGTTGCAGCAGCAGCTGAGATCCTGCAGTGCTTTGGCTATGTGCACATACTTGTCAAC
AATGCTGGGATCAGCTACCGTGGTACCATCATGGACACCACAGTGGATGTGGACAAGAGGGTCATGGAGACAAAC
TACTTTGGCCAGTTGCTCTAACGAAAGCACTCCTGCCCTCCATGATCAAGAGGAGGCAAGGCCACATTGTGCC
ATCAGCAGCATCCAGGGCAAGATGAGCATTCTTTTCGATCAGCATATGCAGCCTCCAAGCACGCAACCCAGGCT
TTCTTTGACTGTCTGCGTGCCGAGATGGAACAGTATGAAATTGAGGTGACCGTCATCAGCCCCGGCTACATCCAC
ACCAACCTCTCTGTAAATGCCATCACCGCGGATGGATCTAGGTATGGAGTTATGGACACCACCACAGCCCAGGGC
CGAAGCCCTGTGGAGGTGGCCAGGATGTTCTTGCTGCTGTGGGGAAGAAGAAGAAAGATGTGATCCTGGCTGAC
TTACTGCCCTTCTTGCTGTTTATCTTCGAACTCTGGCTCCTGGGCTCTTCTTCAGCCTCATGGCCTCCAGGGCC
AGAAAAGAGCGGAAATCCAAGAACTCCTAGTACTCTGACCAGCCAGGGCCAGGGCAGAGAAGCAGCACTCTTAGG
CTTGCTTACTCTACAAGGGACAGTTGCATTTGTTGAGACTTTAATGGAGATTTGTCTCACAAGTGGGAAAGACTG
AAGAAACACATCTCGTGAGATCTGCTGGCAGAGGACAATCAAAAACGACAACAAGCTTCTTCCCAGGGTGAGGG
GAAACACTTAAGGAATAAATATGGAGCTGGGGTTTAACACTAAAACTAGAAATAAACATCTCAAACAGTAAGAG
TTGTAGTCTTCCAGGACTAGAACCTTGTGTCCTTTGAATTCTCGCCCTGCCAGCTCCTAGAAATAGTTTCAATCT
TGGAATCAGATGTTATGTCACCTGAAA

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FIGURE 1104

GGCACGAGGGCCAGGAACGCCAGCCGTTACGCGTTTCGGTCCTCCTTGGCTGACTCACCGCCCTCGCCGCCGCAC
CATGGACGCCCCCAGGCAGGTGGTCAACTTTGGGCCTGGTCCCGCCAAGCTGCCGCACTCAGTGTTGTTAGAGAT
ACAAAAGGAATTATTAGACTACAAAGGAGTTGGCATTAGTGTTCTTGAAATGAGTCACAGGTCATCAGATTTTGC
CAAGATTATTAACAATACAGAGAATCTTGTCGGGAATTGCTAGCTGTTCCAGACAACATAAGGTGATTTTTCT
GCAAGGAGGTGGGTGCGGCCAGTTCAGTGCTGTCCCTTAAACCTCATTGGCTTGAAAGCAGGAAGGTGTGCGGA
CTATGTGGTGACAGGAGCTTGGTCAGCTAAGGCCGAGAAGAAGCCAAGAAGTTTGGGACTATAAATATCGTTCA
CCCTAAACTTTGGGAGTTATACAAAAATTCCAGATCCAAGCACCTGGAACCTCAACCCAGATGCCTCCTACGTGTA
TTATTGCGCAAATGAGACGGTGCATGGTGTGGAGTTTGACTTTATACCCGATGTCAAGGGAGCAGTACTGGTTTG
TGACATGTCTCTCAAACCTCCTGTCCAAGCCAGTGGATGTTTCCAAGTTTGGTGTGATTTTTGCTGGTGCCAGAA
GAATGTTGGCTCTGCTGGGGTCACCGTGGTGATTGTCCGTGATGACCTGCTGGGGTTTGCCCTCCGAGAGTGCCC
CTCGGTCTTGAATACAAGGTGCAGGCTGGAAACAGCTCCTTGTACAACACGCCCTCCATGTTTCAGCATCTACGT
CATGGGCTTGGTTCTGGAGTGGAATAAAAACAATGGAGGTGCCGCGGCCATGGAGAAGCTTAGCTCCATCAAATC
TCAAACAATTTATGAGATTATTGATAATTCTCAAGGATTCTACGTTTGTCCAGTGGAGCCCCAAAATAGAAGCAA
GATGAATATTCCATTCCGCATTGGCAATGCCAAAGGAGATGATGCTTTAGAAAAAAGATTTCTTGATAAAGCTCT
TGAACCAATATGTTGTCCTTGAAAGGGCATAGGTCTGTGGGAGGCATCCGGGCCTCTCTGTATAATGCTGTAC
AATTGAAGACGTTTCAAGCTGGCCGCCTTCATGAAAAAATTTTTGGAGATGCATCAGCTAT**TGA**ACACATCCTAA
CCAGGATATACTCTGTTCTTGAACAACATACAAAGTTTAAAGTAACCTTGGGGATGGCTACAAAAGTTAACACAG
TATTTTTCTCAAATGAACATGTTTATTGCAGATTCTTCTTTTTTGAAGAACAACAGCAAAACATCCACAACCTCT
GTAAAGCTGGTGGGACCTAATGTCACCTTAATTCTGACTTGAACCTGGAAGCATTTTAAGAAATCTTGTTGCTTTT
CTAACAAATTCCCGCGTATTTTGCCTTTGCTGCTACTTTTTCTAGTTAGATTTCAAACCTTGCCTGTGGACTTAAT
AATGCAAGTTGCGATTAATTATTTCTGGAGTCATGGGAACACACAGCACAGAGGGTAGGGGGGCCCTCTAGGTGC
TGAATCTACACATCTGTGGGTCTCCTGGGTTTACGCGCTGTTGATTCAAGGTCAACATTGACCATTGGAGGAGT
GGTTTAAGAGTGCCAGGCGAAGGGCAAACCTGTAGATCGATCTTTATGCTGTTATTACAGGAGAAGTGACATACTT
TATATATGTTTATATTAGCAAGGTCTGTTTTTAATACCATATACTTTATATTTCTATACATTTATATTTCTAATA
ATACAGTTATCACTGATATATGTAGACACTTTTAGAATTTATTAAATCCTTGACCTTGTGCATTATAGCATTCCA
TTAGCAAGAGTTGTACCCCTCCCGAGTCTTCGCTTCTCTTTTTAAGCTGTTTTATGAAAAAGACCTAGAAGT
TCTTGATTCATTTTTACCATTCTTTCCATAGGTAGAAGAGAAAGTTGATTGGTTGGTTGTTTTTCAATTATGCCA
TTAAACTAAACATTTCTGTTAAATTACCCTATCCTTTGTTCTCTACTGTTTTCTTTGTAATGTATGACTACGAGA
GTGATACTTTGCTGAAAAGTCTTTCCCTATTGTTTATCTATTGTCAGTATTTTATGTTGAATATGTAAAGAACA
TTAAAGTCCTAAACATCTAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 1105

MDAPRQVVNFGPGPAKLPHSVLLEIQKELLDYKGVGISVLEMSHRSSDFAKIINNNTENLVRELLAVPDNYKVIFL
QGGGCGQFSAVPLNLIGLKAGRCADYVVTGAWSAKAAEEAKKFGTINIVHPKLGSYTKIPDPSTWNLPDASYVY
YCANETVHGVEFDFIPDVKGAVLVCDMSSNFLSKPVDVSKFGVIFAGAQKNVGSAGVTVVIVRDDLLGFALRECP
SVLEYKVQAGNSSLYNTPPCFSIYVMGLVLEWIKNNGGAAAMEKLSSIKSQTIIYEIIDNSQGFYVCPVEPQNRSK
MNIPFRIGNAKGDDALEKRFLDKALELNMLSLKGHRSVGGIRASLYNAVTIEDVQKLAAFMKKFLEMHQL

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FIGURE 1106

GGAGGGCCCGGCGGCGACAGCGGAGGCAGAGAGGAAGGCGGTTCTGAGAGCTTCAGAGAGCGATGGAAAGCAAAA
TGGGTGAATTGCCTTTAGACATCAACATCCAGGAACCTCGCTGGGACCAAAGTACTTTCTGGGCAGAGCCCGGC
ACTTTTTCACTGTTACTGATCCTCGAAATCTGCTGCTGTCCGGGGCACAGCTGGAAGCTTCTCGGAACATCGTGC
AGAACTACAGGGCCGGCGTGGTGACCCAGGGATCACCGAGGACCAGCTGTGGAGGGCCAAGTATGTGTATGACT
CCGCCTTCCATCCGGACACAGGGGAGAAGGTGGTCCTGATTGGCCGCATGTCAGCCCAGGTGCCCATGAACATGA
CCATCACTGGCTGCATGCTCACATTCTACAGGAAGACCCCAACCGTGGTGTCTGGCAGTGGGTGAATCAGTCCT
TCAATGCCATTGTAACTACTCCAACCGCAGTGGTGACACTCCCATCACTGTGAGGCAGCTGGGGACAGCCTATG
TGAGTGCCACCACTGGAGCTGTGGCCACGGCCCTGGGACTCAAATCCCTCACCAAGCACCTGCCCCCTTGGTGC
GCAGATTTGTGCCCTTTGCAGCAGTGGCAGCTGCCAACTGCATCAACATCCCCCTGATGAGGCAGAGAGAGCTGC
AGGTGGGCATCCCGGTGGCTGATGAGGCAGGTGAGAGGCTTGGCTACTCGGTGACTGCAGCCAAGCAGGGAATCT
TCCAGGTGGTGATTTCAAGAATCTGCATGGCGATTCTGCCATGGCCATCCCACCACTGATCATGGACACTCTGG
AGAAGAAAGACTTCCTGAAGCGCCGCCCTTGGCTGGGGGCACCCCTGCAGGTGGGACTGGTGGGCTTCTGCCTGG
TATTTGCAACCCCCCTGTGCTGTGCCCTATTCCCCCAGAAGAGCTCCATACACATAAGCAACCTGGAACCAGAGC
TGAGAGCTCAGATCCATGAGCAAAACCCAGCGTTGAAGTGGTCTACTACAACAAGGGGCTTTGAGGAGGGTCAG
CCTCTGTCCCCCTCCCTCACTTCCTTGGGCTGCTGCTTTAGTGGAGTCATGTCACCCCTACCACTTGGCTATCTGC
CTAGCACTGGGCAGGGGCCCTTGGTGGGCAGATGGCAATTGAGGGTAGCAACCTATTAGGGTGGGGGAGGGACCTC
CATAAGGCTTTTCTCCCTTCTCTGGTTTCAAAGATCAGAGCACATAACCCCTCCTGTGCTTGAGTGTCCATGCA
TATACATACATGATACACATGTGTATGTGTACATTGGGTCCTGAAAGCTAGAAGCAGGCATGCTAGCCTAGTATG
TTCTGACATCTGGCTTCCCTTCTCAGCCTCATGTCCACCTGCCTGCCAGCCAGGCTACAGGTGTGACTTCCTTCT
CTAAACTGTTACACCAGCCAAGTTATTTTTGATGGCACCTCATCCCTTCTAGAAATAGGAGGAGCCCCAGGATCT
CAGGACAGAGACTTATAGACACTAGTAGGACAAAGCGGGCTGAATCCTTCAGGTTTCTGATACCTAGCTCCCCAA
GCTGACTGGGCTGGCAGAGGAGAACATGTTGAGACAAGGGAGGCAGGGGACTTATGCATCCCTCAGTGCCATCCC
TTGTATCCTGGAATAGCTCCATTTCCCCTCCTCCTCTCTACCAGACAAAGGAGTGCCTGTGTCTGTACTGCCCT
CGCTGTCTCCCCCACCACCCTACTTGACAGCGTGGGCATCTTCAGGCACAGCCTTGGGAGTTCTGGTGTGCTCT
GACATCATGACCTCAAATCTAAATCCTCCAATCCCAACTCCCTTTCCCAAACAAAAGCCACAGAGGCAGAGCAA
GCATTCCCCCTTTAAGAGCTTCCACTGCACCCCTCCCAAGGGACACAGCGGTAGGAATGGTGCTTAAACTCCACA
GGTATCAGAGAGGGTGTAACTAGGACATCCTCAAGGGCAGCTAGGCCCCGAATGTACAATGTTAAGACAGGGAAT
TTTGTGTTCCATTGACTTTTTTTTTTTTTTTAATGGAGTTTCACTATTTTGCCAGGCTGGAGTGCATGGTGC
GATCTTGGCTCACTGCAACCTCTGCCTCCTGGGTTCAAGTGATTCTCTTGCCTCAGTCTCCCAGTAGTGAAAT
TACAGGTGTGTGCTACCACATCTTGCTAGTTTTGTATTTTAGCAGAGATGGGGTTTTACCATGTTGGCCAGGC
TAGTCTCGAACTCCTGACCTCAGGTGATCCACCTGCCTTGGCCTCCCAAAGCACTGGGATTACAAGCATGAGCCA
CTGTGCCAGCCTGTTCCACTGACATTTCTTAGACATTACAGAAAACCCACCTTAACCTCTTTTCTTTCTTGA
GGGTTGGTCTGTCCCCACCTCCACCCTCCACCCCTGGAAGAGGAAGGGCCCGGGCATCAGTGGCTAGTCCAA
ATAAAATATGGGCTTGGGGATGGAATGGGTGGTGGTAAGTTCACAGAGTGTAGTTAGATCCCAACTCCCATGACC
TCTGGCTTCAGTGGTGGGTGGGGCAGGGCAGATGAAAGGGCTTCAGTGGGAACCTCTGAGAGCATTTTCTGTTC
CCCCATCAACCGCCCCCAGTGATAACATCTGTGAAGCCAGCCATTACTCAATAAACTGCAAACCTTGTCTAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 1107

MGELPLDINIQEPRWDQSTFLGRARHFFTVTDPRNLLLSGAQLEASRNIVQNYRAGVVTPGITEDQLWRAKYVYD
SAFHPDTGEKVVLIGRMSAQVPMNMTITGCMLTFYRKTPTVVFWQWVNQSFNAIVNYSNRSGDTPITVRQLGTAY
VSATTGAVATALGLKSLTKHLPPLVGRFVPFAAVAAANCINIPLMRQRELQVGIPVADEAGQRLGYSVTAAKQGI
FQVVISRICMAIPAMAIPPLIMDTLEKKDFLKRRPWLGAQLQVGLVGFCLVFATPLCCALFPQKSSIHISNLEPE
LRAQIHEQNPSVEVVYYNKGL

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FIGURE 1108

GTGCTTTACTGCGCGCTCTGGTACTGCTGTGGCTCCCCGTCCTGGTGCGGGACCTGTGCCCCGCGCTTCAGCCCT
CCCCGCACAGCCTACTGATTCCCCTGCCGCCCTTGCTCACCTCCTGCTCGCC**ATGG**AGTCGCTGGTTTTTCGCGCG
GCGCTCCGGCCCCACTCCCTCGGCCGCAGAGCTAGCCCGCCGCTGGCGGAAGGGCTGATCAAGTCGCCCCAAGCC
CCTAATGAAGAAGCAGGCGGTGAAGCGGCACCACCACAAGCACAACCTGCGGCACCGCTACGAGTTCCTGGAGAC
CCTGGGCAAAGGCACCTACGGGAAGGTGAAGAAGGCGCGGAGAGCTCGGGGCGCCTGGTGGCCATCAAGTCAAT
CCGGAAGGACAAAATCAAAGATGAGCAAGATCTGATGCACATACGGAGGGAGATTGAGATCATGTCATCACTCAA
CCACCCTCACATCATTGCCATCCATGAAGTGTGAGAACAGCAGCAAGATCGTGATCGTCATGGAGTATGCCAG
CCGGGGCGACCTTTATGACTACATCAGCGAGCGGCAGCAGCTCAGTGAGCGCAAGCTAGGCATTTCTTCCGGCA
GATCGTCTCTGCCGTGCACTATTGCCATCAGAACAGAGTTGTCCACCGAGATCTCAAGCTGGAGAACATCCTCTT
GGATGCCAATGGGAATATCAAGATTGCTGACTTCGGCCTCTCCAACCTCTACCATCAAGGCAAGTTCCTGCAGAC
ATTCTGTGGGAGCCCCCTCTATGCCTCGCCAGAGATTGTCAATGGGAAGCCCTACACAGGCCCAGAGGTGGACAG
CTGGTCCCTGGGTGTTCTCCTCTACATCCTGGTGCATGGCACCATGCCCTTTGATGGGCATGACCATAAGATCCT
AGTGAAACAGATCAGCAACGGGGCCTACCGGGAGCCACCTAAACCCTCTGATGCCTGTGGCCTGATCCGGTGGCT
GTTGATGGTGAACCCACCCGCCGGGCCACCCTGGAGGATGTGGCCAGTCACTGGTGGGTCAACTGGGGCTACGC
CACCCGAGTGGGAGAGCAGGAGGCTCCGCATGAGGGTGGGCACCCTGGCAGTGACTCTGCCCGCGCCTCCATGGC
TGACTGGCTCCGGCGTTCCTCCCGCCCCCTCCTGGAGAATGGGGCCAAGGTGTGCAGCTTCTTCAAGCAGCATGC
ACCTGGTGGGGGAAGCACCACCCTGGCCTGGAGCGCCAGCATTTCGCTCAAGAAGTCCCGCAAGGAGAATGACAT
GGCCAGTCTCTCCACAGTGACACGGCTGATGACACTGCCCATCGCCCTGGCAAGAGCAACCTCAAGCTGCCAAA
GGGCATTCTCAAGAAGAAGGTGTAGCCTCTGCAGAAGGGGTACAGGAGGACCCTCCGGAGCTCAGCCCAATCCC
TGCGAGCCCAGGGCAGGCTGCCCCGCTGCTCCCCAAGAAGGGCATTCTCAAGAAGCCCCGACAGCGGAGTCTGG
CTACTACTCCTCTCCCGAGCCAGTGAATCTGGGGAGCTCTTGGACGAGGCGACGTGTTTGTGAGTGGGGATCC
CAAGGAGCAGAAGCCTCCGCAAGCTTCAGGGCTGCTCCTCCATCGCAAAGGCATCCTCAAACCTCAATGGCAAGTT
CTCCAGACAGCCTTGGAGCTCGCGGCCCCACCACCTTCGGCTCCCTGGATGAACCTCGCCCCACCTCGCCCCCT
GGCCCCGGGCCAGCCGACCCTCAGGGGCTGTGAGCGAGGACAGCATCCTGTCCTCTGAGTCTTTTGACCAGCTGGA
CTTGCTGAACGGCTCCAGAGCCCCCACTGCGGGGCTGTGTGTCTGTGGACAACCTCACGGGGCTTGAGGAGCC
CCCCCTCAGAGGGCCCTGGAAGCTGCCTGAGGCGCTGGCGGCAGGATCCTTTGGGGGACAGCTGCTTTTCCCTGAC
AGACTGCCAGGAGGTGACAGCGACCTACCGACAGGCACTGAGGGTCTGCTCAAAGCTCACCT**TGAG**TGGAGTAGGC
ATTGCCCCAGCCGGTCAAGGCTCTCAGATGCAGCTGGTTGCACCCCGAGGGGAGATGCCTTCTCCCCCACCTCCC
AGGACCTGCATCCCAGCTCAGAAGGCTGAGAGGGTTTGCAGTGGAGCCCTGAGCAGGGCTGGATATGGGAAGTAG
GCAAATGAAATGCGCCAAGGGTTCAGTGTCTGTCTTCAGCCCTGCTGAACGAAGAGGATACTAAAGAGAGGGGAA
CGGGAATGCCCGCGACAGAGTCCACATTGCCTGTTTCTTGTGTACATGGGGGGGCCACAGAGACCTGGAAAAGAGA
ACTCTCCCAGGGCCCATCTCCTGCATCCCATGAATACTCTGTACACATGGTGCCTTCTAAGGACAGCTCCTTCCC
TACTCATTCCCTGCCAAGTGGGGCCAGACCTCTTTACACACACATTCCCGTTTCTACCAACCACCAGAAGTGG
TGGTGGCACCCCTAATGTGCATGAGGCATCCTGGGAATGGTCTGGAGTAACGCTTCGTTATTTTTATTTTTATTT
TTATTTATTTATTTATTTTTTTTGTAGACGGAGTTTCGCTCTTGGTGCCAGGCTAGAGTGCAATGGCGCGATCTCA
GCTCACCTCAACCTCCGCTCCCGGGTTCAAGCGATTCTCCTGCCTCAGCCTCCCTAGTAGCTGGGATTACAGGC
GCCCCGCCACCATGCCCGGCTAATTTTGTATTTTTAGTAGAGACAGGGTTTCTCCATGTTGGTCAGGCTGGTCTCA
AACTCCCGACCTCAGGTGATCCACCCACCTCGGCCTCCCAAAGTGCTGGGATTACAGGCGTGAGCCACCGCGCCC
CACCTAACCCTTCCTTATTTAGCCTAGGAGTAAGAGAACACAATCTCTGTTTCTTCAATGGTTCTCTTCCCTTTT
CCATCCTCCAAACCTGGCCTGAGCCTCCTGAAGTTGCTGCTGTGAATCTGAAAGACTTGAAAAGCCTCCGCTGC
TGTGTGGACTTCATCTCAAGGGGCCAGCCTCCTCTGGACTCCACCTTGGACCTCAGTGACTCAGAACTTCTGCC
TCTAAGCTGCTCTAAAGTCCAGACTATGGATGTGTTCTCTAGGCCTTCAAGACTCTAGAATGTCCATATTTATTT
TTATGTTCTTGGCTTTGTGTTTTAGGAAAAGTGAATCTTGTGTTTTCAATAATGTGAATGCTATGTTCTGGGAA
AATCCACTATGACATCTAAGTTTTGTGTACAGAGAGATATTTTTGCAACTATTTCCACCTCCTCCACAACCCCC
CACACTCCACTCCACACTCTTGAGTCTCTTTACCTAATGGTCTCTACCTAATGGACCTCCGTGGCCAAAAAAGTAC
CATTAAACCAGAAAGGTGATTGGAAAAA

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FIGURE 1109

MESLVFARRSGPTPSAAELARPLAEGLIKSPKPLMKKQAVKRHHHKHNLRRHYEFLETLGKGTYGKVKKARESSG
RLVAIKSIRKDIKDEQDLMHIRREIEIMSSLNHPHIIAIEHVFENSSKIVIVMEYASRGDLYDYISERQQLSER
EARHFFRQIVSAVHYCHQNRVVHRDLKLENILLDANGNIKIADFGLSNLYHQGKFLQTFCSPLYASPEIVNGKP
YTGPEVDSWSLGVLLYILVHGTMPFDGHDHKILVKQISNGAYREPPKPSDACGLIRWLLMVNPTRRATLEDVASH
WWVNWGYATRVGEQEAPHEGGHPGSDSARASMADWLRRSSRPLENGAKVCSFFKQHAPGGGSTTPGLERQHSLK
KSRKENDMAQSLHSDTADDTAHRPGKSNLKLPGILKKKVSASAEGVQEDPPELSPIPASPGQAAPLLPKKGILK
KPRQRESGYYSPEPSESGELLDAGDVFVSGDPKEQKPPQASGLLLHRKGILKLNKFSQTALELAAPTTFGSLD
ELAPPRPLARASRPSGAVSEDSILSSESFDQLDLPERLPEPPLRGCVSDNLTGLEEPPSEGP GSCLRRWRQDPL
GDSCFSLTDCQEV TATYRQALRVCSKLT

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FIGURE 1110

GGCACGAGGCCTGGGTCCCGTCACATCCTTCTTGCTCAACCACTGGGTGCACAGGATGGAACTTCTATTCCCTC
TCTGGAAGACAGCGCGTGGCTTGGCTTCACAGAGTTGTGGCTGGAGACCGAAGCAGCCCTTTCTCAGGCTTACT
GTCACCACTGTCTGTGTAGGGGAGAGGGGAGTCCGCTCTGTCTGAAGGCCAGAGATGAAGGACAAGTGG
TAGGCCGGGTGTTTCAAGGCTCTTCCAACGCCGACTGCTTCAACTCCGAGCAGGACCACCCAGGACAATTCAAGGG
AAGCTTTAAAGGAACCAGAAAGGGCCCAGGAGCACTCTTTGCCCAACTTTGCTGGGGGGCAGCACTTCTTTGAAT
ACCTTCTTGTTGTTTCTCTCAAAAAGAAGCGTTCAGAGGATGATTACGAGCCTATAATCACCTACCAATTTCCCA
AGCGGGAGAACCTGCTTCGGGGTCAGCAGGAGGAGGAGGAGCGGCTGCTCAAAGCTATCCCTTGTTCTGCTTCC
CAGATGGGAATGAGTGGGCATCACTACCGAGTATCCCAGGGAGACCTTCTCCTTCGTTCTGACCAATGTGGATG
GGAGCAGAAAGATTGGATACTGCAGGCGCCTCTTGCCCTGCCGGCCCTGGCCCTCGCCTTCCCAAAGTGTACTGCA
TCATCAGCTGCATCGGCTGCTTCGGCTTGTCTCCAAGATCCTGGATGAAGTGGAGAAGAGACATCAGATCTCCA
TGGCTGTCTATCTACCCGTTTATGCAGGGCCTCCGAGAGGCAGCCTTCCCTGCTCCTGGGAAGACTGTCACTCTCA
AGAGCTTCATCCCCGACTCAGGCACTGAGTTTCACTTCACTGACACGGCCCTGGACTCCCACCTAGAACATGTGG
ATTTTAGTTCTCTATTGCACTGTCTCAGTTTTGAACAGATACTTCAGATCTTTGCCTCTGCCGTGCTGGAGAGAA
AAATCATCTTCTGGCGGAAGGTCTCAGCACCTTGTCTCAGTGATCCATGCTGCTGCCGCACTGCTCTACCCCT
TCAGCTGGGCGCACACCTACATCCCTGTTGTCCCTGAGAGCCTTCTGGCCACCGTCTGCTGCCCCACCCCTTCA
TGGTTGGAGTACAAATGCGCTTCCAGCAGGAGGTTCATGGACAGCCCTATGGAAGAGGTCTGCTGGTCAATCTTT
GTGAAGGAACCTTCTTAATGTGCGTTGGTGATGAAAAAGACATCCTGCCACCGAAGCTTCAGGATGACATCTTAG
ACTCTCTTGGTCAGGGGATCAATGAGTTAAAGACTGCAGAACAAATCAACGAGCATGTTTCAGGCCCCCTTTGTGC
AGTTCTTTGTCAAGATTGTGGGCCATTATGCTTCTATATCAAGCGGGAGGCAAATGGGCAAGGCCACTTCCAAG
AAAGATCCTTCTGTAAGGCTCTGACCTCCAAGACCAACCGCCGATTTGTGAAGAAGTTTGTGAAGACACAGCTCT
TCTCACTTTTCATCCAGGAAGCCGAGAAGAGCAAGAATCCTCCTGCAGGCTATTTCCAACAGAAAATACTTGAAT
ATGAGGAACAGAAGAAACAGAAGAAACCAAGGGAAAAAACTGTGAAATGAAGAGCTGTGGTGAATAAGAATGACTA
GAGCTACACACCATTTCTGGACTTCAGCCCTGCCAGTGTGGCAGGATCAGCAAACTGTGAGCTCCCCAAATCC
ATATCCTCACTCTGAGTCTTGGTATCCAGGTATTGCTTCAAACCTGGTGTCTGAGATTTGGATCCCTGGTATTGAT
TTCTCAGGACTTTGGAGGGCTCTGACACCATGCTCACAGAACTGGGCTCAGAGCTCCATTTTTTGCAGAGGTGAC
ACAGGTAGGAAACAGTAGTACATGTGTTGTAGACACTTGGTTAGAAGCTGCTGCAACTGCCCTCTCCCATCATTA
TAACATCTTCAACACAGAACACACTTTGTGGTCGAAAGGCTCAGCCTCTCTACATGAAGTCTGTGGACATGTAAG
GACGAGAGTAAAGAGGAAAATCTTATAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 1111

MEGQVVGRVFRFLFQRRLLQLRAGPPQDNSGEALKEPERAQEHSLPNFAGGQHFFEYLLVSLKKRSEDDYEP I I
TYQFPKRENLLRGQEEEEERLLKAIPLCFDPDGNEWASLTEYPRETF SFVL TNVDGSRKIGYCRLLPAGPGPRL
PKVYCIISCIGCFGLFSKILDEVEKRHQISMAVIYPFMQGLREAAFPAPGKTVTLKSFIPDSGTEFISLTRPLDS
HLEHVDFSSLLHCLSFEQILQIFASAVLERKII FLAEG LSTLSQCIHAAAALLYPFSWAHTYIPVVPESLLATVC
CPTPFMVGVQMRFQQEVMDSPMEEVLLVNLCEGTF LMSVGDEKDILPPKLQDDILD SLGQG INELKTAEQ INEHV
SGPFVQFFVKIVGHYASYIKREANGQGHFQERSFCKALTSKTNRRFVKKFVKTQLFSLFIQEAEKSKNPPAGYFQ
QKILEYEEQKKQKKPREKTVK

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FIGURE 1112

TCCCTGTCCTGCGCCCGCGCGCCCGGGAGCCTACCCAGCACGCGCTCCGCGCCCACTGGTTCCCTCCAGCCGCC
GCCGTCCAGCCGAGTCCCCACTCCGGAGTCGCCGCTGCCGCGGGGACATGGTCCTCTGCGTTCAGGGGTGAGCAC
CCCCTTGTAAGCTCAGGGCTACTGTTGGGTGTCAGGGAACAAAGTTTTAGACTGCTGCGCTCCAAAGCGGGCACA
CACATGTACCTAGAACACACCAGCCACTGTCCCCACCATGATGATGACACAGCCATGGACACACCCCTGCCCAGA
CCTCGTCCTTTGCTGGCTGTGGAGCGGACTGGGCAGCGGCCCTGTGGGCCCCGTCCCTGGAAGTGCCCAAGCCA
GTCATGCAGCCCTTGCTGCTGGGGCCTTCCTCGAGGAGGTGGCAGAGGGTACCCAGCCAGACAGAGAGTGAG
CCAAAGGTGCTGGACCCAGAGGAGGATCTGCTGTGCATAGCCAAGACCTTCTCCTACCTTCGGAATCTGGCTGG
TATTGGGGTTCCATTACGGCCAGCGAGGCCCCGACAACACCTGCAGAAGATGCCAGAAGGCACGTTCTTAGTACGT
GACAGCACGCACCCAGCTACCTGTTACGCTGTGAGTGAACCACTCGTGGCCCCACCAATGTACGCATTGAG
TATGCCGACTCCAGCTTCCGTCTGGACTCCAAGTCTGTCCAGGCCACGCATCCTGGCCTTTCCGGATGTGGTC
AGCCTTGTGTCAGCACTATGTGGCCTCCTGCACTGCTGATACCCGAAGCGACAGCCCCGATCCTGCTCCACCCCG
GCCCTGCCTATGCCTAAGGAGGATGCGCCTAGTGACCCAGCACTGCCTGCTCCTCCACCAGCCACTGCTGTACAC
CTAAAGTGGTGCAGCCCTTTGTACGCAGAAGCAGTGCCCGCAGCCTGCAACACCTGTGCCGCTTGTTCATCAAC
CGTCTGGTGGCCGACGTGGACTGCCTGCCACTGCCCCGGCGCATGGCCGACTACCTCCGACAGTACCCCTTCCAG
CTCTGACTGTACGGGGCAATCTGCCACCCCTCACCCAGTCGCACCCTGGAGGGGACATCAGCCCCAGCTGGACTT
GGGCCCCCACTGTCCCTCCTCCAGGCATCCTGGTGCCTGCATACCTCTGGCAGCTGGCCCAGGAAGAGCCAGCAA
GAGCAAGGCATGGGAGAGGGGAGGTGTCACACAACCTGGAGGTAAATGCCCCAGGCCGCATGTGGCTTCATTAT
ACTGAGCCATGTGTCAGAGGATGGGGAGACAGGCAGGACCTTGTCTCACCTGTGGGCTGGGCCCAGACCTCCACT
CGCTTGCTGCCCTGGCCACCTGAACTGTATGGGCACTCTCAGCCCTGGTTTTTCAATCCCCAGGGTCGGGTAGG
ACCCCTACTGGCAGCCAGCCTCTGTTTCTGGGAGGATGACATGCAGAGGAAGTGAATCGACAGTACTAGTGAC
CCCTTGTGAGGGGTAAGCCAGGCTAGGGGACTGCACAATTATACACTATTTATTTATTTATTTCTCCTTGGGGTT
GGTGTGAGGGGCGAGCCAACCCACCTCTATGCCCTGAGCCCTGGTAGTCCAGAGACCCCAACTCTGCCCTGGCT
TCTCTGGTTCTTCCCTGTGAAAGCCCATCCTGAGACATCTTGCTGGAACCAAGGCAATCCTGGATGTCTGGTA
CTGACCCACCCGTCTGTGAATGTGTCCACTCTCTTCTGCCCCAGCCATATTTGGGGAGGATGGACAACCTACAAT
AGGTAAGAAAATGCAGCCGGAGCCTCAGTCCCCAGCAGAGCCTGTGTCTCACCCCTCACAGGACAGAGCTGTAT
CTGCATAGAGCTGGTCTCACTGTGGCGCAGGCCCGGGGGAGTGCCTGTGCTGTGAGGAAGAGGGGGTGCTGGT
TTGAGGGCCACCACTGCAGTTCTGCTAGGTCTGCTTCTGCCCAGGAAGGTGCCTGCACATGAGAGGAGAGAAAT
ACACGTCTGATAAGACTTCATGAAATAATAATTATAGCAAAGAACAGTTTGGTGGTCTTTTCTCTTCCACTGATT
TTTCTGTAATGACATTATACCTTTATTACCTCTTTATTTTATTACCTCTATAATAAAATGATACCTTTTTTCATGT
AAAAAAAAAAAAAAAAA

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FIGURE 1113

MVLCVQGPRLLAVERTGQRPLWAPSLELPKPVMOPLPAGAFLEEVAEGTPAQTESEPKVLDPEEDLLCIAKTFS
YLRESGWYWGSITASEARQHLQKMPEGTFLLVRDSTHPSYLFILSVKTRGPTNVRIEYADSSFRLD\$NCLSRPRI
LAFPDVVSILVQHYVASCTADTRSDSPDPAPTPALPMPKEDAPSDPALPAPPPATAVHLKLVQPFVRRSSARSLQH
LCRLVINRLVADVDCFLPRRMADYLRQYPFQL

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FIGURE 1114

GXCCCTCGACGGCXTGCAGCCGGGAGAGCC**ATG**GCGGGGGCCGCAGCGGGCGGCAGAGGCGGAGGTGCCTGGGGG
CCGGGGCGCGGAGGGGGCCGGGGGGCTCCGGCGGGGGCTGCTCTCCCCAGCCCCCGCCGGCTCCCCCGGGCTGGG
CTGCAGCCGCTCAGGGCCACGATCCCCTTCCAGCTGCAGCAGCCGCACCAGCGCCGGGACGGGGGTGGCCGTGCA
GCCAGCGTCCCATGCTCGGTGGCCCCAGAAAAGTCAGTGTGTAGGCCTCAGCCACTTCAGGTCCGGCGTACATTC
TCCCTGGACACCATCCTCAGCTCCTACCTTCTGGGCCAGTGGCCACGAGATGCTGATGGGGCCTTCACCTGCTGC
ACCAATGACAAGGCCACCCAGACGCCCTGTCTGGCAAGAGCTAGAAGGTGAGCGTGCCAGTTCTGTGCACAC
AAGCGCTCAGCATCCTGGGGCAGCACAGACCACCGAAAAGAGATTTCGAAGTTGAAGCAACAACCTGCAGAGGACG
AAGCTGAGCCGCAGTGGGAAAGAGAAGGAGCGAGGTTACCACTCCTAGGGGACCACGCAGTGCGGGGAGCACTG
AGGGCGTCCCCTCCAGCTTCCCCTCAGGGTCCCCTGTCTTGCGACTCAGCCCCTGCCTGCACAGGAGCCTGGAA
GGGCTCAACCAAGAGCTGGAGGAGGTATTTGTGAAGGAGCAGGGAGAAGAGGAGCTGCTGAGGATCCTTGATATC
CCTGATGGGCACCGGGCCCCAGCTCCTCCCCAGAGTGGCAGCTGTGATCATCCCCTCCTCCTCTGGAGCCTGGC
AACCTTGCCAGCTCTCCTTCCATGTCCTTGGCATCTCCCCAGCCTTGTTGGCCTGGCCAGTCATGAGGAACATCGG
GGTGCCGCCGAGGAGCTGGCATCCACCCCCAACGACAAAGCCTCCTCTCCAGGACACCCAGCCTTTCTTGAAGAT
GGCAGCCCATCTCCAGTCCTTGCCCTTGTCTGCCCTCCCCTCGACCTAATCATAGCTACATCTTCAAACGGGAGCCC
CCAGAAGGCTGTGAGAAAGTGCGTGTGTTTGAAGAAGCCACGTCTCCAGGTCTGACCTGGCCTTCCTGACTTCC
TGTCTTGACAAGAACAAGTCCATTTCAACCCGACTGGCTCAGCCTTCTGCCCCGTCAACCTGATGAAGCCCCCTC
TTCCCCGGCATGGGCTTCATCTTCCGTAAGTGGCCCTCAAACCCGGGATCTCCCCTTCCCCCGGCCAGCCCCAGG
CCACCACCTCGGAAGGATCCGGAAGCCTCCAAGGCCTCCCCACTGCCATTGAGCCATGGCAGCGCACCCCCACCA
TCAGAAGAGCCTGTGCTTTTCCAGAGCTCCCTGATGGTCT**AG**GGGTCCACCCCTGCCCCACTTTACCATAGAGA
CCAGTGCTTGGTGGCAGGTCCCTCCCCAGGTCCCCTGAGATGGGGTATGGAGGGGGCCCTTCCCTCTCGGCCTTC
GAGCACTTTCTTTCACTTACTGTGTCAAAGCCCTGGGTCTCTTTTTTGATGGGCACCGGCCCTCTGAACGTGAT
GGGACCTGCCTTCTCCACTAGTAGCTGGGCAGCTCACAATTCACACCTGTGTACCTGCCACATCCCTCACTTGGT
GGAAAACACCCAGAAGGTCTTGAGTCCCCACCCCTGGGTGTGAGTCCAAATGACTGTATAGGAGGCCCTTATTT
TTGTACAGAGCAAGCTGGCCATGAACGAAGGAGAGAAGACGCCACAGATTTCTTCCCTCTCCTCCAGGAGACC
ATAAGATAGATCCCCCATCCTCTCAGCCCTATTCCCATGCCTCCCTCTCATTGGAGGAGCTGACCAAAGCAGCCC
TAACGGGCCATAACACTTGACCAATTCAGCTGCTGGCAGAGGGAGGAAACAAGTGTTTTCCCAAGTGGCATTTTC
ATCTCGCTTTACCCCTGACTAAAGATTGTCTTAAGTAGCAGCCCAGCCCGCCAGCCCCAGGTGGGTAGTGGGGA
GGAGAGCTGGCATTCCTCCAGGTGGCAAATGGCGACTCTATACTCTCCGCCCGCCCCAGGGCTGGATGGATTAGA
AAAATCCCTATTTTTCTTGATCGATGTAGAGACTCTATTTTCTCCCAAAGACACTATTTTTGCAGCTGTTTGAA
GTTTGTATATTTTCCGTACTGCAGAGCTTACACAAAATTGAAGAATGTTAATGTTTCAGTTTTCTTATCTTGTGT
TTAGAGGTTGTTTTTGCAGATCTTGGTGTTAATAGACCAAATAAATAAATAAATATTCCAGCAAAAAAAAAAAG
TCGAC

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FIGURE 1115

MAGAAAGGRGGGAWGPGRGGAGGLRRGCSPPAPAGSPRAGLQPLRATIPFQLQQPHQRRDGGGRAASVPCSVAPE
KSVCRPQPLQVRRTFSLDTILSSYLLGQWPRDADGAFTCCTNDKATQTPLSWQELEGERASSCAHKRSASWGSTD
HRKEISKLKQQLQRTKLSRSGKEKERGSPLLGDHAVRGALRASPPSFPSPGSPVLRRLSPCLHRSLEGLNQELEEVE
VKEQGEEELLRILDIPDGHRAPAPPQSGSCDHPLLLLEPGNLASSPSMSLASPQPCGLASHEEHRGAAEELASTP
NDKASSPGHPAFLEDGSPSPVLAFAASPRPNHSYIFKREPPEGCEKVRVFEEATSPGPDIAFLTSCPDKNKVHFN
PTGSAFCPVNLMKPLFPGMGFI FRNCPSNPGSPLPPASPRPPPRKDPEASKASPLPFEPWQRTPPSEEPVLFQSS
LMV

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FIGURE 1116

GTCATGTTCTTCGCGCCCTGGTGTGGACACTGCCAGCGGCTGCAGCCGACTTGGAATGACCTGGGAGACAAATAC
AACAGC**ATG**GGAAGATGCCAAAGTCTATGTGGCTAAAGTGGACTGCACGGCCCACTCCGACGTGTGCTCCGCCAG
GGGGTGCAGAGGATACCCACCTTAAAGCTTTTCAAGCCAGGCCAAGAAGCTGTGAAGTACCAGGGTCTTCGGGAC
TTCCAGACACTGGAAAACCTGGATGCTGCAGACACTGAACGAGGAGCCAGTGACACCAGAGCCGGAAGTGGAACCG
CCAGTGCCCCCGAGCTCAAGCAAGGGCTGTATGAGCTCTCAGCAAGCAACTTTGAGCTGCACGTTGCACAAGGC
GACCACTTTATCAAGTTCTTCGCTCCGTGGTGTGGTCACTGCAAAGCCCTGGCTCCAACCTGGGAGCAGCTGGCT
CTGGGCCTTGAACATTCCGAAACTGTCAAGATTGGCAAGGTTGATTGTACACAGCACTATGAACTCTGCTCCGGA
AACCAGGTTTCGTGGCTATCCCACTCTTCTCTGGTTCAGAGATGGGAAAAAGGTGGATCAGTACAAGGGAAAGCGG
GATTTGGAGTCACTGAGGGAGTACGTGGAGTCGCAGCTGCAGCGCACAGAGACTGGAGCGACGGAGACCGTCACG
CCCTCAGAGGCCCGGTGCTGGCAGCTGAGCCCAGGCTGACAAGGGCACTGTGTTGGCACTCACTGAAAATAAC
TTCGATGACACCATTGCAGAAGGAATAACCTTCATCAAGTTTATGCTCCATGGTGTGGTCATTGTAAGACTCTG
GCTCCTACTTGGGAGGAACTCTCTAAAAGGAATTCCTGGTCTGGCGGGGGTCAAGATCGCCGAAGTAGACTGC
ACTGCTGAACGGAATATCTGCAGCAAGTATTCGGTACGAGGCTACCCACGTTATTGCTTTTCCGAGGAGGGAAG
AAAGTCAGTGAGCACAGTGGAGGCAGAGACCTTGACTCGTTACACCGCTTTGTCTGAGCCAAGCGAAAGACGAA
CTTT**TAG**GGAACACAGTTGGAGGTCACCTCTCCTGCCAGCTCCCGCACCTTGCCTTTAGGAGTTCAGTCCCACAGA
GGCCACTGGGTTCCAGTGGTGGCTGTTTCAAGCAAGCAGAACATACTAAGCGTGAGGTATCTTCTTTGTGTGTGTG
TTTTCCAAGCCAACACACTCTACAGATTCTTTATTAATGTGTAACCTCATGGTCACTGTGTAAACATTTTCAGTG
GCGATATATCCCCTTTGACCTTCTCTTGATGAAATTTACATGGTTTCCTTTGAGACTAAAATAGCGTTGAGGGAA
ATGAAATTGCTGGACTATTTGTGGCTCCTGAGTTGAGTGATTTTGGTGAAAGAAAGCACATCCAAAGCATAGTTT
ACCTGCCCACGAGTTCTGGAAAGGTGGCCTTGTGGCAGTATTGACGTTTCTCTGATCTTAAGGTCACAGTTGACT
CAATACTGTGTTGGTCCGTAGCATGGAGCAGATTGAAATGCAAAAACCCACACCTCTGGAAGATACCTTCACGGC
CGCTGCTGGAGCTTCTGTTGCTGTGAATACTTCTCTCAGTGTGAGAGGTTAGCCGTGATGAAAGCAGCGTTACTT
CTGACCGTGCCTGAGTAAGAGAATGCTGATGCCATAACTTTATGTGTGATACTTGTCAAATCAGTTACTGTTCA
GGGGATCCTTCTGTTTCTCACGGGGTGAAACATGTCTTTAGTTCTCATGTAAACACGAAGCCAGAGCCCACATG
AACTGTTGGATGTCTTCTTAGAAAGGGTAGGCATGGAAAATTCCACGAGGCTCATTCTCAGTATCTCATTAAC
CATTGAAAGATTCCAGTTGTATTTGTCACCTGGGGTGACAAGACCAGACAGGCTTTCCCAGGCCTGGGTATCCAG
GGAGGCTCTGCAGCCCTGCTGAAGGGCCCTAACTAGAGTTCTAGAGTTTCTGATTCTGTTTCTCAGTAGTCCTTT
TAGAGGCTTGCTATACTTGGTCTGCTTCAAGGAGGTGCACCTTCTAATGTATGAAGAATGGGATGCATTTGATCT
CAAGACCAAGACAGATGTCAAGTGGGCTGCTCTGGCCCTGGTGTGCACGGCTGTGGCAGCTGTTGATGCCAGTGT
CCTCTAACTCATGCTGTCTTGTGATTAAACACCTCTATCTCCCTTGGGAATAAGCACATACAGGCTTAAGCTCT
AAGATAGATAGGTGTTTGTCTTTTACCATCGAGCTACTTCCCATAATAACCACTTTGCATCCAACACTCTTCAC
CCACCTCCCATACGCAAGGGGATGTGGATACTTGGCCCAAAGTAAGTGGTGGTAGGAATCTTAGAAACAAGACCA
CTTATACTGTCTGTCTGAGGCAGAAGATAACAGCAGCATCTCGACCAGCCTCTGCCTTAAAGGAAATCTTTATTA
ATCACGTATGGTTCACAGATAATTCTTTTTTAAAAAAACCCAACCTCCTAGAGAAGCACAAGTCAAGAGTCT
TGACACACAAGTTCAGCTTTGCATCACGAGTCTTGATTCCAAGAAAATCAAAGTGGTACAATTTGTTTGTGTTA
CACTATGATACTTTCTAAATAAACTCTTTTTTTTTAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAC

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FIGURE 1117

MEDAKVYVAKVDCTAHS DVC SAQGVRGYPTLKLFPQGEAVKYQGPRDFQTLENWMLQTLNEEPVTPEPEVEPPS
APELKQGLYELSASN FELHVAQGDHF IKFFAPWCGHCKALAPTWEQLALGLEHSETVKIGKVDCTQHYELCSGNQ
VRGYPTLLWFRDGKKVDQYKGKRDLES LREYVESQLQRTETGATETVTPSEAPVLAAEPEADKGTVLALTENNFD
DTIAEGITFIKFYAPWCGHCKTLAPTWEELSKKEFPGLAGVKIAEVDCTAERNICSKYSVRGYPTLLLFRGGKKV
SEHSGGRDLDLH R FVLSQAKDEL

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FIGURE 1118

GCGGAGGGACCGACGGACGCACGGGCGGGCGGCCGGGAGCCATGGAGCGCGGCCCTGGGGCCCCGGGGCGCGGGC
CGGGGTGGGCTTCCCACGGCACGACATGGAGACCTGTGGTTGCGAGGCTCCCTGGGGCTCGGCTTGGACCGCGAT
GGGGCTGGGCCCTGGCCTCCTAACGGGGCTGCTGTCTGGGGCGGTAGCTGGGGGGGCGCTCTCCCCCTGCCCGC
GACTCGGAGCACCCCCACCCCTCCCTGCCGGGCCAGGCCGGGCGGCGTTGTTGGCGGGGGCCCCGGTGGAGGCC
CGGCCTGGGCGGCGCCCCGCCATGAATGGGCTGTGCTGAGTGAGTCTGCTGCCTCTTCTGCTGCCCGCCCTGCC
CCGGCCGCATCGCTGCCAAGCTCGCCTTCCCTGCCGCCGGAGGCCACCTACTCCCTGGTGCCTGAGCCCCGAGCCGG
GGCCTGGTGGGGCCGGGGCCGCCCTTGGGGACCCTGAGAGCCTCCTCGGGCGCACCCGGGCGCTGGAAGCTGC
ACCTGACGGAGCGTGCCGACTTCCAGTACAGCCAGCGCGAGCTGGACACCATCGAGGTCTTCCCCACCAAGAGCG
CCCGCGGCAACCGCGTCTCCTGCATGTATGTTGCTGCGTGCTGGTGGCAGACAAGGACACCAGGCTCAGGGAG
GCCATCCCCAGCTGGCATGGGTGGGCAGGCTGGGCGACTCCAACAACCCAGCGCCTGGTGGTTGCCTGCTGGGCG
AGAGCTGGGGCACAGGGGCTGCCCTGGCCTGCGGGTACATCCACCTTCTCGCCAGGTACACGGTCTCTTCTCGC
ACGGCAATGCCGTGGACCTGGGCCAGATGAGCAGCTTCTACATTGGCCTGGGCTCCCGCCTCCACTGCAACATCT
TCTCTACGACTACTCCGGCTACGGTGCCAGCTCGGGCAGGCCTTCCGAGAGGAACCTCTATGCCGACATCGACG
CCGCCTGGCAGGCCCTGCGCACCAGGTACGGCATCAGCCGGACAGCATCATCCTGTACGGGCAGAGCATCGGCA
CGGTGCCCCACCGTGGACCTGGCCTCGCGCTACGAGTGTGCCCGGTGGTGTGCTGCACTCGCCGCTCACCTCGGGCA
TGCGCGTGCCTTCCCCGACACCAAGAAGACCTACTGCTTCGACGCCTTCCCTAACATCGAGAAGGTGTCCAAGA
TCACGTCTCCCGTGCTCATCATCCACGGCACGGAGGACGAGGTGATCGACTTCTCGCACGGGCTGGCGCTCTACG
AGCGCTGCCCCAAGGCGGTGGAGCCGCTGTGGGTGGAGGGCGCCGGGCACAACGACATCGAGCTCTACAGCCAGT
ACCTGGAGCGCTGCGTCGCTTCTATCTCCAGGAGCTGCCCAGCCAGCGCGCCTAGCGGGCGGGCCCCAACCGGCCG
GACCTCAGCAATAAGGCGGGCCCCCGGACCTCACCCCGCGCCGGCCCCCACCAGGGGCTGCATGTGGACCCCCCG
GGCGGGCCAGGGGACCCCGCCCCGACCCAGGGGCTGTGGACGATGTACAGGCAACAGAGCTACGCACTCCTTTCC
TTTTGGAAGCAAGAAGAAAATACGTGAAAACGGAAATTAAAGATTTAAATTTTAAAAAAAAAAAAAAAAA

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FIGURE 1119

MNGLSLSELCCLFCCPPCPGRIAAKLAFLPPEATYSLVPEPEPGPGGAGAAPLGTLRASSGAPGRWKLHLTERAD
FQYSQRELDTIEVFPTKSARGNRVSCMYVRCVPGARQGHQAQGGHPQLAWVGRLGDSNNPAPGGCLLGESWGTGA
ALACGYIHLLARYTVLFSHGNAVDLGQMSSFYIGLSRLHCNIFSVDYSGYGASSGRPSESNLYADIDAAWQALR
TRYGISPDSIIILYGQSIGTVPTVDLASRYECAAVVLHSPLTSGMRVAFPDTKKTYCFDAFPNIEKVSKITSPVLI
IHGTEDEVIDFSHGLALYERCPKAVEPLWVEGAGHNDIELYSQYLERLRRFISQELPSQRA

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FIGURE 1120

GC GCGGCCCATGGAGTCGGGGCTGCTGCGGCCGGCGCCGGTGAGCGAGGTCATCGTCTGCATTACAACCTACACC
GGCAAGCTCCGCGGTGCGCGCTACCAGCCGGGTGCCGGCCTGCGCGCCGACGCCGTGGTGTGCCTGGCGGTGTGC
GCCTTCATCGTGCTAGAGAATCTAGCCGTGTTGTTGGTGCTCGGACGCCACCCGCGCTTCCACGCTCCCATGTTC
CTGCTCCTGGGCAGCCTCACGTTGTGCGATCTGCTGGCAGGCGCCGCTACGCCGCCAACATCCTACTGTCTGGGG
CCGCTCACGCTGAAACTGTCCCCGCGCTCTGGTTCGCACGGGAGGGAGGCGTCTTCGTGGCACTCACTGCGTCC
GTGCTGAGCCTCCTGGCCATCGCGCTGGAGCGCAGCCTCACCATGGCGCGCAGGGGGCCCGCGCCCGTCTCCAGT
CGGGGGCGCACGCTGGCGATGGCAGCCGCGGCCCTGGGGCGTGTGCTGCTCCTCGGGCTCCTGCCAGCGCTGGGC
TGGAATTGCCTGGGTGCGCTGGACGCTTGCTCCACTGTCTTGCCGCTCTACGCCAAGGCCTACGTGCTCTTCTGC
GTGCTCGCCTTCGTGGGCATCCTGGCCGCGATCTGTGCACTCTACGCGCGCATCTACTGCCAGGTACGCGCCAAC
GCGCGGCGCCTGCCGGCACGGCCCGGGACTGCGGGGACCACCTCGACCCGGGCGCGTGCAGGCCGCGCTCGCTG
GCCTTGCTGCGCACGCTCAGCGTGGTGCTCCTGGCCTTTGTGGCATGTTGGGGCCCCCTCTTCTGCTGCTGTTG
CTCGACGTGGCGTGCCCGGCGCGCACCTGTCTGTACTCCTGCAGGCCGATCCCTTCTGCGGACTGGCCATGGCC
AACTCACTTCTGAACCCCATCATCTACACGCTCACCAACCGCGACCTGCGCCACGCGCTCCTGCGCCTGGTCTGC
TGCGGACGCCACTCCTGCGGCAGAGACCCGAGTGGCTCCCAGCAGTCGGCGAGCGCGGGCTGAGGCTTCCGGGGGC
CTGCGCCGCTGCCTGCCCCGGGCCTTGATGGGAGCTTCAGCGGCTCGGAGCGCTCATCGCCCCAGCGCGACGGG
CTGGACACCAGCGGCTCCACAGGCAGCCCCGGTGACCCACAGCCGCCCGGACTCTGGTATCAGAACCGGCTGCA
GACTGACACCCCTCGGCCCACGACTGTCTTCCCAAGTTTACAGACTTGTTCTTTTACATAAAGGAATTTGTAGG
AAATGCAGCCAAAGGTGCAGTCGGAAGATGCAGGGGAAATGTATTTATGCAGCGACACCCACAATGTGAACA
AACAGACAAAAAATCTGTGCCCTCGTGGAATTGACGTTCTGCTTGGGAACACAGAAAAGAACTCGGTGATGAAAT
AATGGAGATGATTCCAGTGACAAACGACAGAGATGGTGATGGTGGTCAGGGAAGACCTCTCTGCAGAGGTAGTGA
CTTGTGATGTGAGCTGAGACCTCTGTCTTGGGAAGACCAAAAGAAAAGCATTTTACGGATGAGGGAATGGCATGCG
CAAAGGCCCTGAGGCTGAAATGTGCCATGTGTTCTAAGAAATGCAGCGATGCTGGTGTGCTGGAGCAGGGACG
GAGGGGGAGAATGGGAGGAGACAAGGAGCTGAAGGAGTAGTTCCTGAAGGACCTTGTGGGTGATATAGAGGACTT
CGCTTTTGCTCTGAGTGAGGTGGGAGCCATAGAAGCTTCTAAGCAGAAGAGGGACTTGCCCTAATTCAGGTGATC
ACAGGTGTCTTGTGGCCTCCATGGGAGGTTGAAAACACAGAAGGTGAAGGGGGGCTGCACTGAGCCACAGGAAC
AATGATGGAGATTCCAGCTAAGCCCAGACCCCGTGGATTCTAGATAGATTTTAGAGGCAGCAGACAGAATTACTG
AGGAATTGAGTGTAAGAGTGGAATAAAGTTATCAAGGACAATGCCAAGGTGGGGCACCCCAAATTTGACTTTG
GGAGACTCAGCCAAATCCTATCTGGTAATAAAATTTCTTTTTTATTTTTCTTTTCTTTCTTTCTTTCTTTCT
TTTTTTTTTTTTTGTAGTTGGGATCTTGTGCTCTGTACCCAGGCTGGAGTGCAATGGGCACAATTATAGCTCACT
GCAGCCTGGAATCCTGGGATCAAGCCTGGAGTTCTGCTTCAGCCTCCCTAGTAGCTGGGACTACAGGCATGCA
CCACCATGCCCAGTTAATAAAATTTCTTCAAATGCAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 1121

MESGLLRPAPVSEVIVLHYNITGKLRGARYQPGAGLRADAVVCLAVCAFI VLENLAVLLVLGRHPRFHAPMFLLL
GSLTSLDLLAGAAYAANILLSGPLTLKLSPALWFAREGGVFVALTASVLSLLAIALERSLTMARRGPAPVSSRGR
TLAMAAAAGVSLLLGLLPALGWNCGRDLACSTVLPYAKAYVLFVLAFFVGILAAICALYARIYCQVRANARR
LPARPGTAGTTSTRARRKPRSLALLRTL SVVLLAFVACWGPLFLLLLLDVACPARTCPVLLQADPFLGLAMANSI
LNPIIYTLTNRDLRHALLRLVCCGRHSCGRDPSSGSQQSASAAEASGGLRRCLPPGLDGSFSGSERSSPQRDGLDT
SGSTGSPGAPTAARTLVSEPAAD

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FIGURE 1122A

GGGGGCAGAAAAGGGGGCGGCGGACTCGGCTTGTTGTGTTGCTGCCTGAGTGCCGGAGACGGTCCTGCTGCTGCC
GCAGTCCTGCCAGCTGTCCGACGATGTCGTCCCACCTAGTCGAGCCGCCGCCGCCCTGCACAACAATAACAACA
ACTGCGAGGAAAATGAGCAGTCTCTGCCCCCGCCGGCCGGCCTCAACAGTTCCTGGGTGGAGCTACCCATGAACA
GCAGCAATGGCAATGATAATGGCAATGGGAAAAATGGGGGGCTGGAACACGTACCATCCTCATCCTCCATCCACA
ATGGAGACATGGAGAAGATTCTTTTGGATGCACAACATGAATCAGGACAGAGTAGTTCCAGAGGCAGTTCTCACT
GTGACAGCCCTTCGCCACAAGAAGATGGGCAGATCATGTTTGATGTGAAATGCACACCAGCAGGGACCATAGCT
CTCAGTCAGAAGAAGAAGTTGTAGAAGGAGAGAAGGAAGTCGAGGCTTTGAAGAAAAGTGGGACTGGGTATCAG
ACTGGTCCAGTAGACCCGAAAACATTCCACCCAAGGAGTTCACCTCAGACACCCTAAACGTTCTGTGTCTTTAA
GCATGAGGAAAAGTGGAGCCATGAAGAAAGGGGGTATTTTCTCCGCAGAATTTCTGAAGGTGTTTCATTCCATCTC
TCTTCTTTTCTCATGTTTGGCTTTGGGGCTAGGCATCTATATTGGAAAGCGACTGAGCACACCCTCTGCCAGCA
CCTACTGAGAGGAAAAGGAAAAGCCCCCTGGAAATGCGTGTGACCTGTGAAGTGGTGTATTGTACAGTAGCTTATTT
GAACCTTGAGACCATTGTAAGCATGACCCAACCTACCACCCTGTTTTTACATATCCAATTCCAGTAACTCTCAAA
TCAATATTTTATTCAAACCTCTGTTGAGGCATTTTACTAACCTTATACCCTTTTTGGCCTGAAGACATTTTAGAAT
TTCCTAACAGAGTTTACTGTTGTTTAGAAATTTGCAAGGGCTTCTTTCCGCAAATGCCACCAGCAGATTATAAT
TTTGTACGAATGCTATTATCTCTAATTAGTGCCACCAGACTAGACCTGTATCATTATGGTATAAATTTTACTC
TTGCAACATAACTACCATCTCTCTCTTAAACGAGATCAGGTTAGCAAATGATGTAAAAGAAGCTTTATTGTCTA
GTTGTTTTTTTTTCCCCAAGACAAAGGCAAGTTTCCCTAAGTTTGAGTTGATAGTTATTAAAAAGAAAACAAAAC
AAAAAAAAAAGGCAAGGCACAACAAAAAATATCCTGGGCAATAAAAAAATATTTTAAACCAGCTTTGGAGCCA
CTTTTTTGTCTAAGCCTCCTAATAGCGTCTTTTAATTTATAGGAGGCAAACCTGTATAAATGATAGGTATGAAATA
GAATAAGAAGTAAAATACATCAGCAGATTTTCATACTAGTATGTTGTAATGCTGTCTTTTCTATGGTGTAGAATC
TTTCTTTCTGATAAGGAACGTCTCAGGCTTAGAAATATATGAAATTGCTTTTTTGAGATTTTTGCGTGTGTGTTG
ATATTTTTTACGATAATTAGCTGCATGTGAATTTTTTTCATGACCTTCTTTACATTTTTTATTTTTTATTTCTTTAT
TTTTTTTTTCTCTAAGAAGAGGCTTTGGAATGAGTTCCAATTTGTGATGTTAATACAGGCTTCTTGTTTTAGGAAG
CATCACCTATACTCTGAAGCCTTTAAACTCTGAAGAGAATTGTTTCAGAGTTATTCCAAGCACTTGTGCAACTTG
GAAAAACAGACTTGGGTTGTGGGAACAGTTGACAGCGTTCTGAAAAGATGCCATTTGTTTCCTTCTGATCTCTCA
CTGAATAATGTTTACTGTACAGTCTTCCCAAGGTGATTCTGCGACTGCAGGCACTGGTCATTTTCTCATGTAGC
TGCTTTTTTCAGTTATGGTAAACTCTTAAAGTTTCAAGCACTCAACAGATTCCCTTCAGTGATATACTTGTTCTGTTT
ATTTCTAAAATGTGAAGCTTTAGGACCAAATTGTTAGAAAGCATCAGGATGACCAGTTATCTCGAGTAGATTTTC
TTGGATTTCAGAACATCTAGCATGACTCTGAAGGATACCACATGTTTTATATATAAATAATTACTGTTTATGATA
TAGACATTGATATTGACTATTTAGAGAACCGTTGTTAATTTTAAACTAGCAATCTATAAAGTGCACCAGGTCAA
CTTGAATAAAAACACTATGACAGACAGGTTTGCCAGTTTGAGAACTAATCTTTTCTCACATCAACATTTGTA
AAATTGATGTGTTATAGTGGAATAACATATAGATTAAACAAAATTTTATCTTTTTTCAAGAATATAGCTGGC
TATCTTTAAGAAAGATGATATATCCTAGTTTTGAAAGTAATTTCTTTTTTCTTTCTAGCATTGATGTCTAAAT
AATTTTGGACATCTTTTCTTAGACCATGTTTCTGTCTTACTCTTAAACCTGGTAACACTTGATTTGCCTTCTAT
AACCTATTTATTTCAAGTGTTCATATTTGAATTTCTTTGGGAAGAAAGTAAATCTGATGGCTCACTGATTTTGA
AAAGCCTGAATAAAATTGGAAAGACTGGAAAGTTAGGAGAAGTAACTGCTACAGTATGCAATTTCT
ATTACAATTGGTATTACAGGGGGGAAAAGTAAATTTACACTTTACCTGAAAGTGAAGTCTTACAGCTAGTGCATT
GTGCTCTTTCCAAGTTCAGCAGCAGTTCATCAGTGGTGCCACTGAACTGGGTATATTTATGATTTCTTTTACG
GTTAAAAAGAAACATAGTGTGCCCCTTTTTCTTAAAGCATCAGTGAAATTATGGAAAATTACTTAAACGTGAAT
ACATCATCACAGTAGAATTTATTATGAGAGCATGTAGTATGTATCTGTAGCCCTAACACATGGGATGAACGTTTT
ACTGCTACACCCAGATTTGTGTTGAACGAAAACATTGTGGTTTGGAAAGGAGAATTCACAAATTAATAGTTGAAA
TTGTGAGGTTAATGTTTAAAAAGCTTTACACCTGTTTACAATTTGGGGACAAAAAGGCAGGCTTCATTTTTTATA
TGTTTGATGAAAACCTGGCTCAAGATGTTTGTAAATAGAATCAAGAGCAAAACTGCACAACTTGACATTGGAAA
GTGCAACAAGTTCCCGTGATTGCAGTAAAAATATTTACTATTCTAAAAAATGAGAATTGAAGACTTAGCCAGTC
AGATAAGTTTTTTTTCATGAACCCGTTGTGGAATTTATTGGAATTAAGTGAAGTATGCAATTTCTTCATC
TATTTTAGTTAGCACTTTGTATCGTTATATACAGTTTACAATACATGTATAACTTGTAGCTATAAACATTTTGTG
CCATTAAAGCTCTCACAAAACCTTTTCTGTGAGTATATCATTTTCTGTGCGACCTGTTGCCTGGGAGTTTTCAGG
CGATGAGGCCTCCTCGCCTACACACAGCCTTCCAGTCATCTGGCTTCCCAGCAGTGGAGTTCTAACAGTGCTC

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FIGURE 1122B

AGGGTGTGAACGGTGTTCGTGTTGGGACAGTCACCGCAGTGTGAGCATTTCGTGAGTGCCTCGGGACTGTGGCATT
AGAGCATTTGCCTCCAGGTAGTGGCAGGAGGGCGCTCACGGGAGGAGTGCTCAGGAAGTACAGGAGAGAAGAAGA
GTGTGCCCTGATGGAAATGACAGTGGGACACCAGTCAAAGTGGATCCAGAAGGAACTGGAAGTTCCACGTGCCTG
GAAAACAGGATGGATACAGAGGAACTGAAAAATGTAGGTTAGTACTGAACCTAATTGAAATGTGTGTGCCCTCC
CAGGGGTCACTTCATCATATAGTTAGCTGGGTTTACTTCTTTTAAACCAGGAGGTGATTAAAGATGTAAATTT
TAGACAGTCAAGCCATCTGGTGAGAGAGTACCAGAGGAGATCAATCAGTTCTCTAGGCGAGGAGCTAGGGCCTGT
CCTGGGCTGTACCCCTGAGGTTGGCAGTGGTGGGCCAGGATACGTATGAGAAACAAAGCGGAAGTAAACTGGTCA
GAAAGTGACTTAGAGACGAAGGCGTGTGTATTCTTTGTGTGTGTGGCCCGTAAACATGGGTTGATCCCATTAG
TTAAAGGAGGACAGGAGAAGAAATGGGGTGGTAGGAGCAAAGAGGGAGGATTCAGTTTTGAGTGCCTTGAACAT
GAAATGTCTGAGGGCCTTCTGATTGGACACTTACTCC

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FIGURE 1123

GQKRGRRTRLVVLLPECRRRSCCCRSPASCPTMSSHLVEPPPPPLHNNNNNCEENEQSLPPPAGLNSSWVELPMNS
SNGNDNGNGKNGGLEHVPSSSSIHNNGDMEKILLDAQHESGQSSSRGSSHCDSPSPQEDGQIMFDVEMHTSRDHSS
QSEEEVVEGEKEVEALKKSADWSDWSSRPENIPPKEFHFRHPKRSVLSMRKSGAMKKGIFSAEFLKVFIPSL
FLSHVLALGLGIYIGKRLSTPSASTY

GCGGCGGACTCGGCTTGTTGTGTTGCTGCCTGAGTGCCGGAGACGGTCCTGCTGCTGCCGCAGTCCTGCCAGCTG
TCCGACGATGTCGTCCCACCTAGTCGAGCCGCCGCCGCCCTGCACAACAACAACAACAAGTGCAGGAAAAATGA
GCAGTCTCTGCCCCCGCCGGCCGGCCTCAACAGTTCCTGGGTGGAGCTACCCATGAACAGCAGCAATGGCAATGA
TAATGGCAATGGGAAAAATGGGGGGCTGGAACACGTACCATCCTCATCCTCCATCCACAATGGAGACATGGAGAA
GATTCTTTTGATGCACAACATGAATCAGGACAGAGTAGTTCCAGAGGCAGTTCTCACTGTGACAGCCCTTCGCC
ACAAGAAGATGGGCAGATCATGTTTGATGTGGAAATGCACACCAGCAGGGACCATAGCTCTCAGTCAGAAGAAGA
AGTTGTAGAAGGAGAGAAGGAAGTCGAGGCTTTGAAGAAAAGTGGGACTGGGTATCAGACTGGTCCAGTAGACC
CGAAAACATTCCACCCAAGGAGTTCCACTTCAGACACCCTAAACGTTCTGTGTCTTTAAGCATGAGGAAAAGTGG
AGCCATGAAGAAAGGGGGTATTTTCTCCGCAGAATTTCTGAAGGTGTTCAATCCATCTCTCTTCTTTCTCATGT
TTTGGCTTTGGGGCTAGGCATCTATATTGGAAGCGACTGAGCACACCCTCTGCCAGCACCTACTTGAGGGAAAGG
AAAAGCCCCCTGGAAATGCGTGTGACCTGTGAAGTGGTGTATTGTACAGTAGCTTATTTGAACTTGAGACCATTG
TAAGCATGACCCAACCTACCACCCTGTTTTTACATATCCAATTCCAGTAACCCTCAAATTCATATTTTATTCAA
ACTCTGTTGAGGCATTTTACTAACCTTATAACCTTTTTTGGCCTGAAGACATTTTAGAATTTCTTAACAGAGTTTA
CTGTTGTTTAGAAATTTGCAAGGGCTTCTTTTCCGCAAAATGCCACCAGCAGATTATAATTTTGTGCGCAATGCTA
TTATCTCTAATTAGTGCCACCAGACTAGACCTGTATCATTCATGGTATAAATTTTACTCTTCCAACATAACTACC
ATCTCTCTCTTAAACGAGATCAGGTTAGCAAATGATGTAAAAGAAGCTTTATTGTCTAGTTGTTTTTTTTTCCCC
CAAGACAAAGGCAAGTTTCCCTAAGTTTGAGTTGATAGTTATTAAAAAGAAAACAAAACAAAAAAGGCAAG
GCACAACAAAAAATATCCTGGGCAATAAAAAAATATTTTAAACCAAAAAAAAAAAAAA

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FIGURE 1125

MSSHLVEPPPPLHNNNNNCEENEQSLPPPAGLNSSWVELPMNSSNGNDNGNGKNGGLEHVPSSSSSIHNGDMEKIL
LDAQHESGQSSSRGSSHCDSPSPQEDGQIMFDVEMHTSRDHSSQSEEEVVEGEKEVEALKKSADWVSDWSSRPEN
IPPKEFHFRHPKRSVLSMRKSGAMKKGIFSAEFLKVFIPSLFLSHVLALGLGIYIGKRLSTPSASTY

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FIGURE 1126

GCGGCCGGCGGCGTCTCCTCCCGGGACGCTGAGGGGCCCCGAGGAGACCGTGAGGCTCTGGCCTGCAGCTCGCGCC
 GCC**ATG**GACGCTGCCGAGGTCGAATTCCTCGCCGAGAAGGAGCTGGTTACCATTATCCCCAACTTCAGTCTGGAC
 AAGATCTACCTCATCGGGGGGGACCTGGGGCCTTTTAACCCCTGGTTTACCCGTGGAAGTGCCCTGTGGCTGGCG
 ATTAACCTGAAACAAAGACAGAAATGTCGCCTGCTCCCTCCAGAGTGGATGGATGTAGAAAAGTTGGAGAAGATG
 AGGGATCATGAACGAAAGGAAGAACTTTTACCCCAATGCCAGCCCTTACTACATGGAAGTTACGAAGCTCCTG
 TTAAATCATGCTTCAGACAACATCCCGAAGGCAGACGAAATCCGGACCCTGGTCAAGGATATGTGGGACACTCGT
 ATAGCCAAACTCCGAGTGTCTGCTGACAGCTTTGTGAGACAGCAGGAGGCACATGCCAAGCTGGATAACTTGACC
 TTGATGGAGATCAACACCAGCGGGACTTTCTCACACAAGCGCTCAACCACATGTACAAACTCCGCACGAACCTC
 CAGCCTCTGGAGAGTACTCAGTCTCAGGACTTCT**TAGA**GAAAGGCCTGGTGCAGGCGGCTTGCTGGGGGATGTGAG
 CGCTCAGGATGTGATGAGGTACTCGTGGTTCTGGAGCTCTAGAAACACTTCTGATGCATGAAAAATGTGTGATGG
 TGCAAGGAATGGATTTCAGGATGTTGTTGGAGAAACAAGTTTGTGATTAGTCCTTAAACTTAGCTCCCTGGGACA
 TTCTTCAATTCCACATCTGTTTCTAGAAACCAGCCCTTTTCCCCCACTTTTGAGAAATAAAAAAGCCTTAGGT
 AAATAAGTCATTCTCCCTAGCAGAGCCACTTGGGTCTCCTGCATGGAAGCCGTCACACTTGGGCAGGTGTTCACT
 GACTGGTAGGTGTAGATACAGCAGGAGTGGCCATGTGGTCCACGGCTTTTACCCCTTCTTGATCCTGATTTCTT
 GGGCTGAATTTAGACTCTCTCACAGAGGTGGCTCACAGAGAAGGATGGCAGATGGTGCAGCCAACAATGCTGACC
 GGTGCTTATCCTCTAAGCCCTGATCCACAATAAAAATGGACCCAACCAAAAAAAA

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FIGURE 1127

MDAAEVEFLAEKELVTIIPNFSLDKIYLGDDLGPFPGLPVEVPLWLAINLKQRQKCRLLPPEWMDVEKLEKMR
DHERKEETFTPMPSPYYMELTKLLLNHASDNIPKADEIRTLVKDMWDTRIAKLRVSADSFVRQQEAHAKLDNLTL
MEINTSGTFLTQALNHMYKLRTNLQPLESTQSQDF

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FIGURE 1128

CTCGCCGAGATGACCTGGGCACCTCTGCGTTGAATCGGCAAATACTGATCAAGCCGCATTTATTCTGCTCTCAGG
AACTCTAAGTCTAGCAGAGAAGATGAGGCGGTAGAAGTTCATCAATGGCTTGGCTGGAGGACAAGCAAATTGAGG
ACATTGGCAACGGAGTGATCAAAATGATAGATCATGAGGCCTAAAATGAATAAGGAAAAGAGAAGTGGCAGAG
GCTGAGAACAGAAAAGAGAGGGTGGAGGGGCTGTAAATCTTGAAGATTAGGGTATAATATGAGTATATGGGTAAAG
ATTGGAAGAATTGTGTAGGAGGCAGTAGTCAAAAAGTAGAAGCAGTTTGGAAAGAGTAGTTACAAATATCAAGAGC
CAGGTGGCTAAAAGGTGGAGCTATAGGTCATTGAAGCTCAAGAACTGAGTCTCTAGGGCATTGGTTAAGTCATC
TGTCTAGACTTCAAAGTTGTCTAGGATGATAATTCAGAAGACTGATCTGTGCCAAAGTCACAGGTTTTTTCACGAC
TGAAAACAACATAGCAAAATAAGCCAAGATGCTGTGGATCCAATGACCTACGAGGCCAGTTCTTTGGCTTCAC
GCCACAAACGTGCATGCTTCGGATCTACATTGCATTTCAAGACTACCTATTTGAAGTGATGCAGGCCGTTGAACA
GGTTATTCTGAAGAAGCTGGATGGCATCCAGACTGTGACATTAGCCAGTGTCAGATTTCGCAAATGCACAGAGAA
GTTTTCTTTGCTTCATGAAAGGACATTTTGATAACCTTTTTAGCAAAATGGAGCAACTGTTTTTGCAGCTGATTTT
ACGTATTTCCCTCAAACATCTTGCTTCCTGAAGATAAATGTAAGGAGACACCTTATAGTGAGGAAGATTTTCAGCA
TCTCCAGAAAGAAAATTGAACAGTTACAGGAGAAGTACAAGACTGAATTATGTACTAAGCAGGCCCTTCTTGCAGA
ATTAGAAGAGCAAAAAATTGTTTCAGGCCAAACTCAAACAGACGTTGACTTTCTTTGATGAGCTTCATAATGTTGG
CAGAGATCATGGGACTAGTGATTTTAGGGAGAGTTTAGTATCCCTGGTTCAGAACTCCAGAAAACCTACAGAACAT
TAGAGACAATGTGGAAGGAATCGAAACGACTGAAAATATCTTAATTGCTCAGTAGTCAAAAGGAGGAGCCTGT
CAAAAAGTAGAATCATAAGGACTGTTCAAACCATAAGGACTGTTCAAATCATAACAGTGACTGTTCAAACCAACC
ATACTTTTTATTAGATTTGCTTTGTCAACTCTTTCTTGATTCTGTGTTTTCTCTTTTTTTGGTCCACTTTGCTG
AGGTATGAAGTGACTACTTTGAACTAGGCTGAAGCATCTGAGTCTTCTAATAAGTGGGAAGGGATCCAACAAAG
AAGCCATGACCAGTTAAAGATATTTGCAGAGTTACACCTTGGTCATAAGTCCTTTGTGACCTTGATTATTTTGGC
TTACTCTTTGGATGAGACCAGACAAGAAAAGGATTAAACGGGTGGCTCCTTTAATATTATTATTATTGTTTTTGA
GACAAGGTCCCTTTCTGTCAACCAGGTTAGAGTAGATTTCAAGTGGCACAATCTTGGCTCACTGCAACCTCTGTGT
CCTGGGCTCAAGTGATCCTCCTGCCTCAGCCTCCCAAGTAGCTAGGACCACAGGTGCGTGTACCATGCTTGGCT
AATTTTTTTGCAGAAACGAGGCCTCACTATATTGTCCAGGCTGAGTGGCTCTTTTATTAACCAGTCATTACACTG
CGGAACAGCCAACATAGAGTACTTGCTCTCGTCCTGTGAATTTCTTTTCATGAGGGAGTCAATATGTAGTGGA
GAAGCATGTAGCAAAAAAGACAACCTTGATCTTTAATAAAAAAGAAAGTTGGTTTATTTCCAAAATAAATCCCCTG
ACAAAAACCTGGTGATGTTAAGCAATTGACTGTCTTAGAGTCCAGCAGAAAGACCTTAGACAAAAAAGCAGAAC
CCACTGGAGTAGAAAAGGAAGCATGTAGCATATACTCAGTAGTGAAATTTAATTTTACTGACTGTTAGGTATCTA
TGCCAATTTGTTTTTCACTTTCAGTTGGTTTTTGAATCTGCCTTATACCTAATATTTATTTATTCACACTCATAA
GCATCAAATATTTAATGCCCTCAGTGGGAAATTTGTGTTTAACTCAATGGAATCTAATATTTCTTTATGTGCTT
AGTCCCTGTAAAATGTTAGGTCACCCAAGGAAAGGGGAGAAATAGCAATGGTTGTTTCTAAGGTATTGCTTGCCC
TCCATGTCTTCTAAAGAGCAGAACTTGGAGTTTCTCCTTTATGTAGAGAAGAAGTAACCTTAGGGTGTATTTGCA
ATGAAATATTCATAGATATTGAAAGCTTGTGTTTACATGAAATATGTTTATTATCAAGAAGTCCTTTTTCCAATT
CTGTACATTAAATATATGTGTTTTAAAAA

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FIGURE 1129

MSVDPMTYEAQFFGFTPQTCMLRIYIAFQDYLFQVEVQVILKKLDGIPDCDISPVQIRKCTEKFLCFMKGHF
DNLFSKMEQLFLQLILRIPSNILLPEDKCKETPYSEEDFQHLQKEIEQLQEKYKTELCTKQALLAELEEQKIVQA
KLKQTLTFFDELHNVGRDHGTSDFRESLVSLVQNSRKLQNIRDNVEKESKRLKIS

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FIGURE 1130

GTGGGACTGGGATCATCAGTCTCTTCTGTGCACACTATGCGCGGCCTAGAGCGGTGTACGCGGTGGAGGCCAGTG
AGATGGCACAGCACACGGGGCAGCTGGTCCTGCAGAACGGCTTTGCTGACATCATCACCGTGTACCAGCAGAAGG
TGGAGGATGTGGTGCTGCCCGAGAAGGTGGACGTGCTGGTGTCTGAGTGGATGGGGACCTGCCTGCTGTTTGAGT
TCATGATCGAGTCCATCCTGTATGCCCGGGATGCCTGGCTGAAGGAGGACGGGGTCATTGGCCCAACCATGGCTG
CGTTGCACCTTGTGCCCTGCAGTGCTGATAAGGATTATCGTAGCAAGGTGCTCTTCTGGGACAACGCGTACGAGT
TCAACCTCAGCGCTCTGAAGTAAGTGTCCACAGCTGGGACTGGCACCGTCTTGTGGGGCCTCCTGGTCCACAGTC
TGCAGGTGGGCCAAGGCCCTGGGAGATCCCATACGACGGTTGGATAAATGAGGGTACCTGTGCACCCAGATAGGA
CAATCTGTTGTAGCATTGGAGTAATTAAAGCAGTATGGTGCTATAACAAGACAGATGGGCAGAGCAGGGTAGAAT
GCAAGGAACAAAAATTTTCGTATGTGAAAAAGGTGGCATTACGATTAGGAGGGAGTGAGGGCCAAGTCAGCAAAT
TATTCTGGAGCAGTTGATTAGCCCTTGTCTCTCACGCCATACGTGAAAACCTAATTCTGCATGGAATCAGCGTC
AGCGACAGACATCCATGGGGGCCTGTGTGCACCATCTTAGGTGGAGAAATGAGCAGCAACAATGGATGGAATGGA
CCCTGGGCTAGATAGAATCTGGCAGTCTATGTGGCAGAAATCAGCAAAAACACGATTGTAAAAGCAAAACAAGTAA
TTAGAGAAATCACGTGCTGTGAGGTCTTGGAATCAATTAGAAAGAGATGACTAGCCAGATGGAATTGCAGCCCAA
TCATGTGAACAGGCAAACCGCAAAAAATAAATAAAATTACCAATAAATACATGAAAAATTATAATGTTGTTAGTA
GTTAAAATGCGAATTAAAATACATGCTGTTTTCCCTACCAGACAAGCAAAGAGTAAATTAAAATAGTAGCCCAGG
CTTGCCCTGGCAGTGGCAGGGAGGTGTGGCTGCCAGGGCCTTAGAGGTTGGCATCAGGCTGCCCACCCCACTCACT
GCCAGAGCCTCCCACCTGAGTGTTCCCTCCCGGCACTGGAAGCCAGTGGCCGTCCAGAGGAACGTGATTGAATTGC
TGTATATCCATCTGGTGGAGCACTGCTGTGTGTCTGTTAAAAAAGAAACCATAGGTTTTTAGGGATATGTAATGA
TAATTTAGAAAGGGTTTAAGAGACAGTAAAGCTTGGCAGAATAAACCGTGTATACAGAATGGATGTTTGCTTGCAT
AAATAAATTTATATAAATATGTCTGGGGGATAAAAAATAAGTATATCACAAATGCTAAGACAGGCATATGGGGAATT
TAAGCTTTTCTTTATACTTGTCCATAGTTTCCAATTTTAAATTTGTAATTTTTTATCAGAAAAATAAATGTGTA
AATATAGTGAATCTTTATTAAACATTCACTTTTATTGTCTAAAAAAAAAAAAAAAAAAAAA

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FIGURE 1131

GGCACGAGGATTTCTCATCGTCAAGCTTTGTTCTCGTGGGGGCTAGAAATCTCTTTCCAGTTCCAGATTGTGA
AGGGTTCTTGAGTAAGCAGCGTGTCTCCATCCCCCTCTCTAGGGGGCTCTTGGATGGACCTTGCACTCTAGAAGGG
ACAATGGACTTCTGGCTTTGGCCACTTTACTTCTGCCAGTATCGGGGGCCCTGAGGATCCTCCCAGAAGTAAAG
GTAGAGGGGGAGCTGGGCGGATCAGTTACCATCAAGTGCCCACTTCCTGAAATGCATGTGAGGATATATCTGTGC
CGGGAGATGGCTGGATCTGGAACATGTGGTACCGTGGTATCCACCACCAACTTCATCAAGGCAGAATACAAGGGC
CGAGTTACTCTGAAGCAATACCCACGCAAGAATCTGTTCTTAGTGGAGGTAACACAGCTGACAGAAAGTGACAGC
GGAGTCTATGCCTGCGGAGCGGGCATGAACACAGACCGGGGAAAGACCCAGAAAGTCACCCTGAATGTCCACAGT
GAATACGAGCCATCATGGGAAGAGCAGCCAATGCCTGAGACTCCAAAATGGTTTCATCTGCCCTATTTGTTCCAG
ATGCCTGCATATGCCAGTTCTTCCAAATTCGTAACCAGAGTTACCACACCAGCTCAAAGGGGCAAGGTCCCTCCA
GTTACCACTCCTCCCCACCACCCAAATCACCCACCGCCCTCGAGTGTCCAGAGCATCTTCAGTAGCAGGTGAC
AAGCCCCGAACCTTCTGCCATCCACTACAGCCTCAAAAATCTCAGCTCTGGAGGGGCTGCTCAAGCCCCAGACG
CCCAGCTACAACCACCACACCAGGCTGCACAGGCAGAGAGCACTGGACTATGGCTCACAGTCTGGGAGGGAAGGC
CAAGGATTTACATCCTGATCCCCGACCATCCTGGGCCTTTTCTGCTGGCACTTCTGGGGCTGGTGGTGAAAAGG
GCCGTTGAAAAGGAGGAAAGCCCTCTCCAGGCGGGGCGCCGACTGGCCGTGAGGATGCGCGCCCTGGAGAGCTCC
CAGAGGCCCCGCGGGTCGCCGCGACCGCGCTCCCCAAAACAACATCTACAGCGCCTGCCCCGCGGCGCGCTCGTGGA
GCGGACGCTGCAGGCACAGGGGAGGCCCCCGTTCCCGGCCCCGGAGCGCCGTTGCCCCCGCCCCGCTGCAGGTG
TCTGAATCTCCCTGGCTCCATGCCCATCTCTGAAGACCAGCTGTGAATACGTGAGCCTCTACCACCAGCCTGCC
GCCATGATGGAGGACAGTGATTAGATGACTACATCAATGTTCTGCTGCTGCAACTCCCCAGCTATCCCCCAACC
CCAGGCTCGGACTGTGGTGCCAAGGAGTCTCATCTATCTGCTGATGTCCAATACCTGCTTCATGTGTTCTCAGAG
CCCTCATCACTTCCCATGCCCCATCTCGACTCCCATCCCCATCTATCTGTGCCCTGAGCATGGCTCTGCCCCCAG
GTCGTCTTGACACCTTGGCAGCCCCCTGTAGTTGACAGGTAAGCTGTAGGCATGTAGAGCAATTGTCCCAATGC
CACTTGCTTCCTTTCCAAGCCGTCGAACAGACTGTGGGATTTGCAGAGTGTTCCTTCATGTCTTTGACCACAGG
GTTGTTGCTGCCCAGGCTCTAGATCACATGGCATCAGGCTGGGGCAGAGGCATAGCTATTGTCTCGGGCATCCTT
CCCAGGGTTGGGTCTTACACAAATAGAAGGCTCTTGCTCTGAGTTATGTGACATGCCTCAGCCCCATGGACTAAG
CAGGGGTCTGGTATAAAAACACTCCTGGAAACGCCTTTGCCCTGATCCAAATGTTAGCACTTGCTAGTGAACGTC
TACTTATCTCAAGTTCTATGCTAAAGGCAATTTATCTTGATGTGATGATAAACCAAACCTTATTAGCAAGATATGC
ATATATATCAAAAAAAAAAAAAAAAAAAAA

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FIGURE 1132

MDFWLWPLYFLPVSGALRILPEVKVEGELGGSVTIKCPLPEMHVRIYLCREMAGSGTCGTVVSTTNFIKA EYKGR
VTLKQYPRKNLFLVEVTQLTESDSGVYACGAGMNTDRGKTQKVTLNVHSEYEPSWEEQMPETPKWFHLPYLFQM
PAYASSSKFVTRVTTPAQRGKVPPVHHSSPTTQITHRPRVSRASSVAGDKPRTFLPSTTASKISALEGLLKPTP
SYNHHTRLHRQRALDYGSQSGREGQGFHILIPTILGLFLLALLGLVVKRAVERRKALSRRARRLAVRMRALESSQ
RPRGSPRPRSQNNIYSACPRRARGADAAGTGEAPVPGPGAPLPPAPLQVSESPWLHAPSLKTSCEYVSLYHQPAA
MMEDSDSDDYINVPA

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FIGURE 1133

GGCACGAGGATTTCTCATCGTCAAGCTTTGTTCTCGTGGGGGCTAGAAATCTCTTTCCAGTTCCAGATTGTGA
AGGGTTCTGAGTAAGCAGCGTGTCTCCATCCCCCTCTCTAGGGGCTCTTGGATGGACCTTGCACTCTAGAAGGG
ACAATGGACTTCTGGCTTTGGCCACTTTACTTCCTGCCAGTATCGGGGGCCCTGAGGATCCTCCAGAAGTAAAG
GTAGAGGGGGAGCTGGGCGGATCAGTTACCATCAAGTGCCCACTTCCTGAAATGCATGTGAGGATATATCTGTGC
CGGGAGATGGCTGGATCTGGAACATGTGGTACCGTGGTATCCACCACCAACTTCATCAAGGCAGAATACAAGGGC
CGAGTTACTCTGAAGCAATACCCACGCAAGAATCTGTTCTTAGTGGAGGTAACACAGCTGACAGAAAGTGACAGC
GGAGTCTATGCCTGCGGAGCGGGCATGAACACAGACCGGGGAAAGACCCAGAAAGTCACCCTGAATGTCCACAGT
GAATACGAGCCATCATGGGAAGAGCAGCCAATGCCTGAGACTCCAAAATGGTTTCATCTGCCCTATTTGTTCCAG
ATGCCTGCATATGCCAGTTCTTCCAAATTCGTAACCAGAGTTACCACACCAGCTCAAAGGGGCAAGTCCCTCCA
GTTACCACTCCTCCCCCACCACCCAAATCACCCACCGCCCTCGAGTGTCCAGAGCATCTTCAGTAGCAGGTGAC
AAGCCCCGAACCTTCTGCCATCCACTACAGCCTCAAAAATCTCAGCTCTGGAGGGGGCTGCTCAAGCCCCAGAGC
CCCAGCTACAACCACCACACCAGGCTGCACAGGCAGAGAGCACTGGACTATGGCTCACAGTCTGGGAGGGAAGGC
CAAGGATTTACATCCTGATCCCGACCATCCTGGGCCCTTTTCTGCTGGCACTTCTGGGGCTGGTGGTGAAGG
GCCGTTGAAAGGAGGAAAGCCCTCTCCAGGCGGGGCCGCCGACTGGCCGTGAGGATGCGCGCCCTGGAGAGCTCC
CAGAGGCCCCGCGGGTCGCCGCGACCGCGCTCCCAAACAACATCTACAGCGCTGCCCGCGGCGCGCTCGTGGA
GCGGACGCTGCAGGCACAGGGGAGGCCCCGTTCCCGGCCCCGAGCGCCGTTGCCCCCGCCCCGCTGCAGGTG
TCTGAATCTCCCTGGCTCCATGCCCCATCTCTGAAGACCAGCTGTGAATACGTGAGCCTCTACCACCAGCCTGCC
GCGATGATGGAGGACAGTGATTGAGATGACTACATCAATGTTCTGCTGCTGCAACTCCCCAGCTATCCCCAACC
CCAGGCTCGGACTGTGGTGCCAAGGAGTCTCATCTATCTGCTGATGTCCAATACCTGCTTCATGTGTTCTCAGAG
CCCTCATCACTTCCCATGCCCCATCTCGACTCCCATCCCCATCTATCTGTGCCCTGAGCATGGCTCTGCCCCAG
GTCGTCTTGACACCTTGGCAGCCCCCTGTAGTTGACAGGTAAGCTGTAGGCATGTAGAGCAATTGTCCCAATGC
CACTTGCTTCTTTTCCAAGCCGTCGAACAGACTGTGGGATTTGCAGAGTGTCTTCCATGTCTTTGACCACAGG
GTTGTTGCTGCCCAGGCTCTAGATCACATGGCATCAGGCTGGGGCAGAGGCATAGCTATTGTCTCGGGCATCCTT
CCCAGGGTTGGGTCTTACACAAATAGAAGGCTCTTGCTCTGAGTTATGTGACATGCCTCAGCCCCATGGACTAAG
CAGGGGTCTGGTATAAAAAACA[^]CTCTGGAAACGCCTTTGCCCTGATCCAAATGTTAGCACTTGCTAGTGAACGTC
TACTTATCTCAAGTTCTATGCTAAAGGCAATTTATCTTGATGTGATGATAAACCAAACTTATTAGCAAGATATGC
ATATATATCAAAAAAAAAAAAAAAAAAAAA

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FIGURE 1134

MDFWLWPLYFLPVSGALRILPEVKVEGELGGSVTIKCPLPEMHVRIYLCREMAGSGTCGTVVSTTNFIKA EYKGR
VTLKQYPRKNLFLVEVTQLTESDSGVYACGAGMNTDRGKTQKVTLNVHSEYEPSWEEQMPETPKWFHLPYLFQM
PAYASSSKFVTRVTTPAQRGKVPPVHHSSPTTQITHRPRVSRASSVAGDKPRTFLPSTTASKISALEGLLKPTP
SYNHHTRLHRQRALDYGSQSGREGQGFHILIPTILGLFLLALLGLVVKRAVERRKALSRRARRLAVRMRALESSQ
RPRGSPRPRSQNNIYSACPRRARGADAAGTGEAPVPGPGAPLPPAPLQVSESPWLHAPSLKTSCEYVS LYHPAA
MMEDSDSDDYINVPA

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FIGURE 1135

AGGGGCGGGCCCGGCGCGCGGGGAAGTCTCTGTAGGGCGGCCGGCTACCCTCAGCCGCCGCGCGTCA**ATG**CCCT
TTCGGTGCCCGGCTACTCACCGGGCTTCCGAAAGCCGCCGAGGTAGTGCGGCTCCGACGAAAAGGGCCCGGAG
CCGTGGAGCTGCCGCCTCCCCGCCCCGTGAGCTGACGGAGCCGGCGGCCGCCGAGCCGCCCTGGTGGCGGGCT
GCCTCTTCGCCCTTCCCTGTCTGCGGGGGCAGAGGCGGTGGCAGCGGCGGCGGCCCGGCCGCTGCTCGGAGGAA
CCCCCTTCGCCCGCCTGGACAACCGACCGCGGGTTCGCCGCGAGCCCCCGACGGGCCGGCCCGCAGCAGCCGGA
GGCCCCGGTCCCGTTTTTAGATTCTAATCAAGAAAATGATTGCTATGGGAAGAGAAGTTTCTGAAAGAACAAC
TGTTACTGAATTACCTCAGACTTCACATGTATCATTCTCCGAGCCTGATATTCCGTCCTCAAAAAGTACTGAGTT
ACCTGTGGACTGGAGTATTAAACGCGACTCCTTTTACCTCTTCTCAACCCTTTACCTGGGCAGATCATTGAA
AGCACAGGAAGAAGCTCAAGGTCTTGTCCAGCATTGTAGGGCAACAGAAGTTACTTTGCCTAAAAGTATACAGGA
TCCCAAACCTCTCCTCTGAGCTCCGTTGTACCTTCCAGCAGAGCCTTATCTATTGGCTCCACCCTGCTTTGTCTTG
GCTACCACTGTTCCCTCGTATTGGAGCTGATAGAAAAATGGCTGGAAAGACAAGTCCTTGGTCAAATGATGCAAC
CCTGCAGCATGTTTTAATGAGTGACTGGTCTGTGAGCTTTACTTCTCTATATAATTTGCTGAAGACAAAACCTTG
CCCCATTTTCTACGTTTGTACCTATCAGTTTACTGTCTGTTCCGAGCAGCAGGATTAGCTGGAAGTGACTTAAT
CACAGCTCTCATATCTCCAACAACCTCGAGGTTTTAAGAGAAGCTATGAGAAATGAAGGTATTGAATTTTCTCTGCC
TTTAATAAAAAGAAAGTGGCCATAAGAAGGAGACAGCATCTGGAACAAGCTTGGGATATGGGGAGGAGCAAGCCAT
CAGTGATGAGGATGAAGAGGAAAGTTTTTCTGGCTGGAAGAGATGGGTGTGCAAGATAAAATTA AAAAGCCAGA
CATACTTTCTATCAAGCTGCGTAAAGAGAAACATGAAGTACAAATGGATCACAGACCTGAATCTGTTGTGTTGGT
AAAAGGAATCAACACCTTTACATTGCTCAATTTTTTGATTAACTCTAAGAGTTTAGTTGCTACCTCAGGTCCACA
GGCAGGACTTCTCCAACCCTCTTGTCCCCTGTTGCTTTCCGAGGTGCCACAATGCAAATGCTTAAGGCACGGAG
TGTGAATGTGAAGACACAAGCTCTTCTGGATACAGAGACCAATTTAGTTTGGAGATTACAGGTCTATCATGCC
TCATTCTCTGCATTCACTGACCATGCTGCTCAAATCTTCACAGAGTGGATCTTTCTCTGCAGTACTGTATCCACA
CGAGCCAACTGCTGTATTTAACATCTGCCTGCAAATGGACAAAGTACTTGATATGGAGGTTGTTTATAAGGAGCT
TACTAACTGTGGTTTGCACCCTAACACTCTGGAGCAACTTAGTCAAATACCGTTACTTGGGAAATCATCTTTACG
GAATGTGGTGCTGAGAGACTACATTTATAATTGGAGATCC**TGA**ACACCAAAGTAAGCCTAAAAGGAATCTTTGAG
GAAAAAAGCCTTCTAGCAAGGAAATTCAAGATTCTTGAAGTTGAAGGAATATACTGAAATGTTTATAAACATAAC
TTTTACTACAGTAGCATCTAAGGTTTTAAATGTGTTTTACTATTTTCAGATTAGATTTTTTAGATATAAAGATGAA
AAACTCAGATAACTCAAATGAGATATCTATATCCCTACAACCTAATTGTATATTGAGCAGAACTGAATTAATAT
GCTTCCTTGCAAATGGGAAATCACATAGCAGTTACCCCATGGCATTGTGACTAATGGCATCAGGGCAAAAATATG
TTACTTTACGATTACCTGTTAGCAGGTTCTTGTTCATAAAGGTAGAAAATAAATACAGACAACATCTAAAAAA
AAAAAAAAAAAAAA

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FIGURE 1136

MALSVPGYSPGFRKPPEVRLRRKRARSRGAAASPPRELTEPAARRAALVAGLPLRPFFPAAGGRGGGSGGGPAAA
RRNPFARLDNRPRVAAEPPDGPAREQPEAPVPFLDSNQENDLLWEEKFPERTTVTELPQTSHVSFSEPDIPSSKS
TELPVDWSIKTRLLFTSSQPFTWADHLKAQEEAQGLVQHCRATEVTLPKSIQDPKLSSELRCTFQQSLIYWLHPA
LSWLPLFPRIGADRKMAGKTSPWSNDATLQHVLMSDWSVSFTSLYNLLKTKLCPYFYVCTYQFTVLFRAAGLAGS
DLITALISPTTRGLREAMRNEGIEFSLPLIKESGHKKETASGTSLGYGEEQAISDEDEEESFSWLEEMGVQDKIK
KPDILSIKLRKEKHEVQMDHRPESVVLVKGINTFTLLNFLINSKSLVATSGPQAGLPPTLLSPVAFRGATMQMLK
ARSVNVKTQALSGYRDQFSLEITGPIMPHSLHSLTMLLKSSQSGSFSAVLYPHEPTAVFNICLQMDKVLDMEVVH
KELTNCGLHPNTLEQLSQIPLLKGSSLRNVVLRDYIYNWRS

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FIGURE 1137

CGGACGCGTGGGGAGAGGCTGTTTACCAGAACAGCATAACAAGGGCAGGTCTGACTGCAAGGCTGGGACTGGGAG
GCAGAGCCGCCGCCAAGGGGGCCTCGGTTAAACACTGGTCGTTCAATCACCTGCAAGACGAAGGAGGCAAGG**ATG**

CTGTTGGCCTGGGTACAAGCATTCTCGTCAGCAACATGCTCCTAGCAGAAGCCTATGGATCTGGAGGCTGTTTC
TGGGACAACGGCCACCTGTACCGGGAGGACCAGACCTCCCCCGCGCCGGGCCTCCGCTGCCTCAACTGGCTGGAC
GCGCAGAGCGGGCTGGCCTCGGCCCCGTGTGGGGGCGCGCAATCACAGTTACTGCCGAAACCCGGACGAGGAC
CCGCGCGGGGCCCTGGTGCTACGTACGTGGCGAGGCGCGCGTCCCTGAGAAACGGCCTTGCGAGGACCTGCGCTGT
CCAGAGACCACCTCCCAGGCCCTGCCAGCCTTACGACAGAAATCCAGGAAGCGTCTGAAGGGCCAGGTGCAGAT
GAGGTGCAGGTGTTGCTCCTGCCAACGCCCTGCCCGCTCGGAGTGAGGCGGCAGCTGTGCAGCCAGTGATTGGG
ATCAGCCAGCGGGTGCGGATGAACTCCAAGGAGAAAAAGGACCTGGGAACTCTGGGCTACGTGCTGGGCATTACC
ATGATGGTGATCATCATTGCCATCGGAGCTGGCATCATCTTGGGCTACTCCTACAAGAGGGGGAAGGATTTGAAA
GAACAGCATGATCAGAAAGTATGTGAGAGGGAGATGCAGCGAATCACTCTGCCCTTGTCTGCCTTACCAACCCC
ACCTGTGAGATTGTGGATGAGAAGACTGTCTGGTCCACACCAGCCAGACTCCAGTTGACCCTCAGGAGGGCAGC
ACCCCCCTTATGGGCCAGGCCGGGACTCCTGGGGCC**TGAG**CCCCCCCCAGTGGGCAGGAGCCCATGCAGACACTGG
TGCAGGACAGCCACCTCCTACAGCTAGGAGGAACCTACCCTTTGTGTTCTGGTTAAACCTTACCACTCCCCC
GCTTTTTTGGCGAATCCTAGTAAGAGTGACAGAAGCAGGTGGCCCTGTGGGCTGAGGGTAAGGCTGGGTAGGGTC
CTAACAGTGCTCCTTGTCCATCCCTTGGAGCAGATTTTGTCTGTGGATGGAGACAGTGGCAGCTCCACAGTGAT
GCTGCTGCTAAGGGCTTCCAAACATTGCCTGCACCCCTGGAACGAACCAGGGATAGACGGGGAGCTCCCCCAGG
CTCCTCTGTGCTTTACTAAGATGGCCTCAGTCTCCACTGTGGGCTTGAGTGGCATACTGTTATTTCATGGTTAA
GGTAAAGCAGGTCAAGGGATGGCATTGAAAAATATATTTAGTTTTTAAAATATTTGGGATGGAACCTCCTACTG
ACCTCTGAGAACTGGAAACGAGTTTGTACAGAAGTCAGAACTTTGGGTTGGGAATGAGATCTAGGTTGTGGCTGC
TGGTATGCTTCAGCTTGCTGGCAATGATGTGCCTTGACAACCGTGGGCCAGGCCTGGGCCCAGGGACTCTTCCTG
TTTCATAAGGAAAGGAAGAATTGCACTGAGCATTCCACTTAGGAAGAGGATAGAGAAGGATCTGCTCCGCCTTG
GCCACAGGAGCAGAGGCAGACCTGGGATGCCCCAGTTTCTCTTCAGGGATGGATAGTGACCTGTCTTCATTTTGC
ACAGGTAAGAGAGTAGTTAGCTAACCTATGGGAATTATACTGTGGGGCCTTGTGAGCTGCTTCTAAGAGGCTAAC
CTGGAAACTAAGCTCAGAGGCAAGGTAATAAAGCACTTCAGGGCTTGCTCCCCAAGTGGGCCTGATTTAGCAGGT
GGTCCTGCGGGCGTCCAGGTACGACCTTCTGTAGGGCACTGGGGCTAGGGTCACAGCCCTAACTCATAAAGC
AATCAAAGAACCATTAGAAAGGGCTCATTAAAGCCTTTTGGACACAGGACCCCAGAGAGGAAAAAGTGACTTGCCC
AAGGTCGTAAGCAAGCTACTGGCATGGCAAGAGCCCAGCTTCTGACGGAGCGCAACATTTCTCCACTGCACTGT
GCTAGCAGCTCAGCAGGGCCTCTAACCTGTGATGTCACACTCAAGAGGCCTTGGCAGCTCCTAGCCATAGAGCTT
CCTTTCCAGAACCCTTCCACTGCCCAATGTGGAGACAGGGGTTAGTGGGGCTTTCTATGGAGCCATCTGCTTTGG
GGACCTAGACCTCAGGTGGTCTCTTGGTGTAGTGATGCTGGAGAAGAGAATATTACTGGTTTCTACTTTTCTAT
AAAGGCATTTCTCTATATACATGTTTTATATACCTCATTCTGACACCTGCATATAGTGTGGGAAATTGCTCTGCA
TTTGA

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FIGURE 1138

MLLAWVQAFLVSNMLLAEAYGSGGCFWDNGHLYREDQTSPAPGLRCLNWLDASGLASAPVSGAGNHSYCRNPDE
DERGPWCYVSGEAGVPEKRPCEDLRCPETTSQALPAFTTEIQEASEGPGADEVQVFAPANALPARSEAAAVQFVI
GISQRVRMNSKEKKDLGTLGYVLGITMMVIIAIGAGIILGYSYKRGKDLKEQHDQKVCEREMQRITLPLSAFTN
PTCEIVDEKTVVVHTSQTPVDPQEGSTPLMGQAGTPGA

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FIGURE 1139

CGGACGCGTGGGGAGAGGCTGTTTACCAGAACAGCATAACAAGGGCAGGTCTGACTGCAAGGCTGGGACTGGGAG
GCAGAGCCGCCGCCAAGGGGGCCTCGGTAAACACTGGTCGTTCAATCACCTGCAAGACGAAGGAGGCAAG**GATG**

CTGTTGGCCTGGGTACAAGCATTCTCGTCAGCAACATGCTCCTAGCAGAAGCCTATGGATCTGGAGGCTGTTTC
TGGGACAACGGCCACCTGTACCGGGAGGACCAGACCTCCCCGCGCCGGGCCTCCGCTGCCTCAACTGGCTGGAC
GCGCAGAGCGGGCTGGCCTCGGCCCGCGTGTGGGGGGCCGGCAATCACAGTTACTGCCGAAACCCGGACGAGGAC
CCGCGCGGGCCCTGGTGCTACGTCAAGTGGCGAGGCCGGCGTCCCTGAGAAACGGCCTTGCGAGGACCTGCGCTGT
CCAGAGACCACCTCCCAGGCCCTGCCAGCCTTACGACAGAAATCCAGGAAGCGTCTGAAGGGCCAGGTGCAGAT
GAGGTGCAGGTGTTTCGCTCCTGCCAACGCCCTGCCCGCTCGGAGTGAGGCGGCAGCTGTGCAGCCAGTGATTGGG
ATCAGCCAGCGGGTGCGGATGAACTCCAAGGAGAAAAAGGACCTGGGAACTCTGGGCTACGTGCTGGGCATTACC
ATGATGGTGATCATCATTGCCATCGGAGCTGGCATCATCTTGGGCTACTCCTACAAGAGGGGGGAAGGATTTGAAA
GAACAGCATGATCAGAAAGTATGTGAGAGGGAGATGCAGCGAATCACTCTGCCCTTGTCTGCCTTCACCAACCCC
ACCTGTGAGATTGTGGATGAGAAGACTGTCTGGTCCACACCAGCCAGACTCCAGTTGACCCCTCAGGAGGGCAGC
ACCCCCCTTATGGGCCAGGCCGGGACTCCTGGGGCC**TGAG**CCCCCCCCAGTGGGCAGGAGCCCCATGCAGACACTGG
TGCAGGACAGCCCACCCTCCTACAGCTAGGAGGAACTACCACCTTTGTGTTCTGGTTAAACCCCTACCCTCCCC
GCTTTTTTGGCGAATCCTAGTAAGAGTGACAGAAGCAGGTGGCCCTGTGGGCTGAGGGTAAGGCTGGGTAGGGTC
CTAACAGTGCTCCTTGTCCATCCCTTGAGCAGATTTTGTCTGTGGATGGAGACAGTGGCAGCTCCACAGTGAT
GCTGCTGCTAAGGGCTTCCAAACATTGCCTGCACCCCTGGAAGTGAACCAGGGATAGACGGGGAGCTCCCCCAGG
CTCCTCTGTGCTTTACTAAGATGGCCTCAGTCTCCACTGTGGGCTTGAGTGGCATACACTGTTATTCATGGTTAA
GGTAAAGCAGGTCAAGGGATGGCATTGAAAAATATATTTAGTTTTTAAAATATTTGGGATGGAATCCCTACTG
ACCTCTGAGAACTGGAACGAGTTTGTACAGAAGTCAGAACTTTGGGTTGGGAATGAGATCTAGGTTGTGGCTGC
TGGTATGCTTCAGCTTGCTGGCAATGATGTGCCCTTGACAACCGTGGGCCAGGCCTGGGCCCAGGGACTCTTCCTG
TTTCATAAGGAAAGGAAGAATTGCACTGAGCATTCCACTTAGGAAGAGGATAGAGAAGGATCTGCTCCGCCTTG
GCCACAGGAGCAGAGGCAGACCTGGGATGCCCCAGTTTCTCTCAGGGATGGATAGTGACCTGTCTTCATTTTGC
ACAGGTAAGAGAGTAGTTAGCTAACCTATGGGAATTATCTGTGGGGCCTTGTGAGCTGCTTCTAAGAGGCTAAC
CTGGAAACTAAGCTCAGAGGCAAGGTAATAAAGCACTTCAGGGCTTGCTCCCCAAGTGGGCCTGATTTAGCAGGT
GGTCCTGCGGGCGTCCAGGTGAGCACCTTCCTGTAGGGCACTGGGGCTAGGGTCACAGCCCCTAATCATAAAGC
AATCAAAGAACCATTAGAAAGGGCTCATTAAAGCCTTTTGGACACAGGACCCCAGAGAGGAAAAAGTGACTTGCCC
AAGGTCGTAAGCAAGCTACTGGCATGGCAAGAGCCCAGCTTCCTGACGGAGCGCAACATTTCTCCACTGCAGTGT
GCTAGCAGCTCAGCAGGGCCTCTAACCTGTGATGTCACACTCAAGAGGCCCTTGGCAGCTCCTAGCCATAGAGCTT
CCTTTCCAGAACCCTTCCACTGCCCAATGTGGAGACAGGGGTTAGTGGGGCTTTCTATGGAGCCATCTGCTTTGG
GGACCTAGACCTCAGGTGGTCTCTTGGTGTAGTGATGCTGGAGAAGAGAATATTACTGGTTTCTACTTTTCTAT
AAAGGCATTTCTCTATATACATGTTTTATATACCTCATTCTGACACCTGCATATAGTGTGGGAAATTGCTCTGCA
TTTGACTTAATTAATAAAAAAAAAAAAAA

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FIGURE 1140

MLLAWVQAFIVSNMLLAEAYGSGGCFWDNGHLYREDQTSPAPGLRCLNWLDASGLASAPVSGAGNHSYCRNPDE
DPRGPWCYVSGEAGVPEKRPCEDLRCPETTSQALPAFTTEIQEASEGPGADEVQVFAPANALPARSEAAAVQPVI
GISQVRMNSKEKKDLGTLGYVLGITMMVIIAIGAGIILGYSYKRGKDLKEQHDQKVCEREMQRITLPLSAFTN
PTCEIVDEKTVVHTSQTPVDPQEGSTPLMGQAGTPGA

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FIGURE 1141

GCGGAGCGCGCAGCGGGGGCTGCAGATTCTTTCCACCATGGCCAGACGCCCCGGAACAGCAGGGCCTGGCACTT
CGTCCTGAGTGCAGCCCGCCGAGACGCAGATGCCCGGGCCGTGGCTCTAGCAGGCTCCACTAACTGGGGCTACGA
CTCTGATGGGCAGCACAGCGACTCGGACTCCGACCCCGAGTACTCCACGCTGCCGCCATCCATCCCCAGTGCGGT
GCCCCGTGACCGGCGAGTCCTTCTGTGACTGTGCTGGGCAGAGCGAGGCCTCCTTCTGTAGCAGCCTGCACTCGGC
CCACCGGGGCAGGGACTGCCGCTGCGGAGAGGAAGACGAGTATTCGACTGGGTCTGGGATGACTTAAATAAGTC
ATCAGCCACCCTGCTGAGCTGTGACAACCGTAAGGTCAGCTTCCACATGGAGTACAGCTGCGGCACAGCGGCCAT
CCGGGGCACCAAGGAGCTGGGGGAGGGCCAGCACTTCTGGGAGATCAAGATGACCTCTCCCGTCTACGGCACCGA
CATGATGGTGGGCATCGGGACGTCGGATGTGGACCTGGACAAATACCGCCACACGTTCTGCAGCCTGCTGGGCAG
GGATGAGGACAGCTGGGGCCTCTCCTACACGGGCCTCCTCCACCACAAGGGCGACAAGACCAGCTTCTCGTCGCG
GTTTCGGCCAGGGCTCCATCATTGGCGTGCACCTGGACACCTGGCACGGCACACTCACCTTTTTCAAGAACAGGAA
GTGTATAGGTGTGGCAGCCACCAAGCTGCAGAACAAGAGATTCTACCCGATGGTGTGCTCCACGGCGGGCCCGGAG
CAGCATGAAGGTCACCCGCTCCTGTGCCAGCGCCACTTCCCTCCAGTACCTGTGCTGCCACCGCCTGCGCCAGCT
GCGGCCAGACTCGGGAGACACGCTGGAGGGTCTGCCGCTGCCGCCGGGCCTCAAGCAGGTGCTACACAACAAGCT
GGGCTGGGTCCCTGAGCATGAGTTGCAGCCGCCGCAAGGCTCCAGTGTCCGATCCCCAGGCAGCGACCTCCGCCCCA
CCCCAGCAGTCGCGAGCCTCGGCCCTGCCAGAGGAAGCGCTGCCGCCGGACCTGACTGACTTCCCAGTGGAAGT
CCTTCTTGGGCTGGGACAGCCCCCTTTCCTCTGTCCCTTCTTCTCTGTCCCTTCCTTCCAGCCACACTCCAGGGC
GGAGTTGGATGAGGCCCGTCCGGAGGGAGCCATCTCTTGCTCCCGAGGCTGGGACAGTCCTTCTGTGGGGGCTC
TAGGGCCCCCTCTGCTGCTGTGCTGGGTGGGGAAGCGGCTGCCCTGAGCCCCAGGTCTTGTGGGAGGCTGCGAGGA
CGAGAGCCTGGCTGGAGCCCGCTTGCTGTTCCACAGGGCCTCGGTTTTTCCTAACTTGCTCTGCATGCTGTCA
GCGGCTGCCCCGCCGTCATAGACTTAAAGGACTGCAATAAATGTAGAGTTGATGTCTAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAA

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FIGURE 1142

GTGTGAGCTGCGGCAGAGACTGGTGGCTGGAGGAGACGCCGGCGCTGGAGAGTGCGCTGCGCCGCCGCGCTG
AGGGACCGCGGGTTAGCCACTGCTGGCTGCTTCCAGTGTTGCGCCGAGAGGTACCGGGGGTGACAGCTCCGGGAC
CGGCCGAAAGGCGAGGAACCGGTGTGGAATTTAAAGAACACACATATTTTACTGGGGCTTTGATCAACCAAAT
GCTAAAAAGCCACACAAAGAAGATCCCTAATAGTCATTTCTCAACAATTATATAGTCAACTGATGTAACA**ATGGT**
ACTAATATTGGGACGCAGACTAAACAGAGAGGATCTTGGGGTGCGTGATTCCCCAGCAACTAAGCGAAAAGTTTT
TGAAATGGACCCCAAATCTCTGACAGGTCATGAGTTTTTTGACTTCTCTTCAGGATCATCCCATGCCGAAAACAT
ACTCCAGATATTTAATGAATTTTCGTGATAGCCGCTTATTCACAGATGTTATCATTGTGTGGAAGGAAAAGAATT
TCCTTGCCATAGAGCTGTGCTCTCAGCCTGTAGCAGCTACTTCAGAGCTATGTTTTGTAATGACCACAGGGAAAG
CCGAGAAATGTTGGTTGAGATCAATGGTATTTTAGCTGAAGCTATGGAATGTTTTTGCAGTATGTTTATACTGG
AAAGGTGAAGATCACTACAGAGAATGTACAGTATCTCTTTGAGACATCAAGCCTCTTTCAGATTAGTGTTCTCCG
TGATGCATGTGCCAAGTTCTTGGAGGAGCAACTTGATCCTTGTAATTGCTTAGGAATCCAGCGCTTTGCTGATAC
CCATTCACTCAAAACACTCTTCACAAAATGCAAAAATTTTGC GTTACAGACTTTTGAGGATGTATCCCAGCACGA
AGAATTTCTTGAGCTTGACAAAGATGAACTTTATGTTGTCGGTGGCTATGATGGGCAAAACAGACTTAGCAGCGT
AGAATGTTATGATTCCTTTTCAAATCGATGGACTGAAGTTGCTCCCTTAAGGAAGCCGTGAGTTCTCCTGCAGT
GACTAGCTGTGTAGGCAAACCTGTTTGTGATTGGTGGAGGACCTGATGATAATACTTGTTCTGATAAGGTTCAATC
TTATGATCCAGAAACCAATTCTTGGCTACTTCGTGCAGCTATCCCAATTGCCAAAAGGTGTATAACAGCTGTATC
CCTAAACAACCTGATCTATGTTGCCGGTGGACTGACCAAGGCAATATGCTGTTACGATCCAGTTGAAGATTACTG
GATGCACGTACAGAATACATTAGCCGTCAGGAAAACCTGTGGTATGTCTGTGTGTAATGGTAAAATATATATCCT
GGGCGGAAGACGGGAAAATGGAGAAGCCACAGACACTATTCTCTGTTATGATCCTGCAACAAGTATCATCACAGG
GGTAGCTGCAATGCCCAGGCCAGTGTCTATCATGGCTGTGTGACTATTCATAGATACAATGAGAAATGCTTTAA
ACTCTGAAGACAGGATACCTCACCAGAAGCCACACTGATCCAAGATGGGAGGTTTTAAAAACTCTACAGTGGG
AACTTCACATATCTCCTTTGTGCCATATGCAAAAATAGTAAAAATAATAATTTGGTGCCTTTCTCCTCAAAATA
TCAATCTTTCAAACTATAATAAAGCCTTTCCTATAATTGAAAAAAAAAAAAAAAAAAAA

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FIGURE 1143

MVLILGRRRLNREDLGVRDSPATKRKVFEMDPKSLTGHEFFDFSSGSSHAENILQIFNEFRDSRLFTDVIICVEGK
EFPCHRAVLSACSSYFRAMFCNDHRESREMLVEINGILAEAMECFLOQYVYTGKVKITTENVQYLFETSSLFQISV
LRDACAKFLEEQLDPCNCLGIQRFADTHSLKTLFTKCKNFALQTFEDVSQHEEFLELDKDELYVVGGYDGNRLS
SVECYDSFSNRWTEVAPLKEAVSSPAVTSCVGKLFVIGGGPDDNTCSDKVQSYDPETNSWLLRAAPIAKRCITA
VSLNNLIYVAGGLTKAICCYDPVEDYWMHVQNTFSRQENCGMSVCNGKIYILGGRRENGEATDTILCYDPATSII
TGVAAMP RPVS YHGCVTIHRYNEKCFKL

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FIGURE 1144

GATCAATGGTATTTTAGCTGAAGCTATGGAAATGTTTTTGCAGTATGTTTATACTGGAAAGGTGAAGATCACTAC
AGAGAATGTACAGTATCTTTGAGACATCAAGCCTCTTTCAGATTAGTGTTCTCCGTGATGCATGTGCCAAGTT
CTTGAGGAGCAACTTGATCCTTGTAATTGCTTAGGAATCCAGCGCTTGCTGATACCCATTCACTCAAAACACT
CTTCACAAAATGCAAAAATTTTGC GTTACAGACTTTTGAGGATGTATCCAGCACGAAGAATTTCTTGAGCTTGA
CAAAGATGAACCTTATTGATTATATTTGTAGTGATGAACCTTGTTATTGGTAAAGAGGAGATGGTTTTTGAAGCCGT
CATGCGTTGGGTCTATCGTGCCGTGATCTGAGAAGACCACTGTTACACGAGCTCCTGACACATGTGAGACTCCC
TCTGTTGCATCCCAACTACTTTGTTCAAACAGTTGAAGTGGACCAATTGATCCAGAATTCTCCTGAGTGTTATCA
GTTGTTGCATGAAGCAAGACGGTACCACATACTTGGAATGAAATGATGTCCCCAAGGACTAGGCCACGCAGGTC
CACTGGCTATTCTGAGGTGATAGTTGTCTGTTGGAGGATGTGAGCGAGTTGGAGGATTTAATCTTCCATACACTGA
GTGCTACGATCCTGTAACAGGAGAATGGAAGTCTTTGGCTAAGCTTCCAGAATTTACCAAATCAGAGTATGCAGT
CTGTGCTCTAAGGAATGACATTCTTGTTTTCAGGTGGAAGAATCAACAGCCGTGATGTCTGGATTTATAACTCACA
GTTAAATATTTGGATCAGAGTTGCCTCTCTCAATAAAGGCAGATGGCGTCACAAAATGGCTGTCTCCTTGGTAA
AGTATATGTTGTCGGTGGCTATGATGGGCAAAACAGACTTAGCAGCGTAGAATGTTATGATTCCTTTTCAAATCG
ATGGACTGAAGTTGCTCCCTTAAGGAAGCCGTGAGTTCTCCTGCAGTGACTAGCTGTGTAGGCAAACCTGTTTGT
GATTGGTGGAGGACCTGATGATAATACTTGTTCTGATAAGGTTCAATCTTATGATCCAGAAACCAATTCTTGGCT
ACTTCGTGCAGCTATCCGAATTGCCAAAAGGTGTATAACAGCTGTATCCCTAAACAACCTGATCTATGTTGCCGG
TGGACTGACCAAGGCAATATACTGTTACGATCCAGTTGAAGATTACTGGATGCACGTACAGAATACATTACGCCG
TCAGGTAATAACTGAAGCAGTACAAAAGAAAAATAAATCTAAGAGGGACCAAGTACATAATCATTATTAATACA
CTGGAATTTCAATTTTAAAATATTTCAGGCTGGGCGTGGTGGCTCACGCCTGTGGTCCCAGCACTTTGGGAGGCC
GAGGTGGATAGATCACTTGAGGTCAGGAGTTCAAGACCAGCCTGGCTAATATGGTGAAACCCCGTCTCTACTAAA
AAATTATGGCCAGGCGTGGTGGTTTCATGCCTGTAATCCCAGCACTTTGGGAGGCTGAGGCAGGCCAATCACCTGA
GGTGGGAGTTTCGAGACCAGCCTGACCAACATGGAGAAACCCCGTCTCTGCTAAAAATACAAAATTAGCTGGGCG
TGGTGGCGCATTGCCTGTAATCCAGCTACTAGGGAGGCTGCGGCAGGAGAATTGCTTGAACCCGGGAGGTGGAG
GTCGCGGTGAGCCGAGATCGAGCCATTGCACTCCAGCCTGGACAGCAGGAGCGAACTCCGTCTCAAAAATAAAT
AAAAAAAAAAAAAAAAAAAA

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FIGURE 1145

MECFLQYVYTGKVKITTENVQYLFETSSLFQISVLRDACAKFLEEQLDPCNCLGIQRFADTHSLKTLFTKCKNFA
LQTFEDVSQHEEFLELDKDELIDYICDELVIGKEEMVFEAVMRWVYRAVDLRRPLLHELLTHVRLPLLHPNYFV
QTVEVDQLIQNSPECYQLLHEARRYHILGNEMMSPRTRPRRSTGYSEVIVVGGCERVGGFNLPTYECYDPVTGE
WKS LAKLPEFTKSEYAVCALRNDILVSGGRINSRDVWIYNSQLNIWIRVASLNKGRWRHKMAVLLGKVYVVGGYD
GQNR LSSVECYDSFSNRWTEVAPLKEAVSSPAVTSCVGKLFVIGGGPDDNTCSDKVQSYDPETNSWLLRAAIRIA
KRCITAVSLNNLIYVAGGLTKAIYCYDPVEDYWMHVQNTFSRQVIT

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FIGURE 1146

GCAGAGGTGCGGCCGGGGAGGCGCGCGGAGGCTGGAGCTGGAGGCGCGGCCGGGTGAGCTGAGAACC**ATGTGTG**
CTCAGTATTGCATCTCCTTTGCTGATGTTGAAAAAGCTCATATCAACATTCGAGATTCTATCCACCTCACACCAG
TGCTAACAAGCTCCATTTTGAATCAACTAACAGGGCGCAATCTTTTCTTCAAATGTGAACCTTCCAGAAAAACAG
GATCTTTTAAAGATTCGTGGTGCTCTCAATGCCGTCAGAAGCTTGGTTCTGATGCTTTAGAAAGGAAGCCGAAAG
CTGTTGTTACTCACAGCAGTGGAACCATGGCCAGGCTCTCACCTATGCTGCCAAATTGGAAGGAATTCCTGCTT
ATATTGTGGTGCCCCAGACAGCTCCAGACTGTAAAAAACTTGCAATACAAGCCTACGGAGCGTCAATTGTATACT
GTGAACCTAGTGATGAGTCCAGAGAAAATGTTGCAAAAAGAGTTACAGAAGAAACAGAAGGCATCATGGTACATC
CCAACCAGGAGCCTGCAGTGATAGCTGGACAAGGGACAATTGCCCTGGAAGTGCTGAACCAGGTTCTTTTGGTGG
ATGCACTGGTGGTACCTGTAGGTGGAGGAGGAATGCTTGCTGGAATAGCAATTACAGTTAAGGCTCTGAAACCTA
GTGTGAAGGTATATGCTGCTGAACCCTCAAATGCAGATGACTGCTACCAGTCCAAGCTGAAGGGGAAACTGATGC
CCAATCTTTATCCTCCAGAAACCATAGCAGATGGTGTCAAATCCAGCATTGGCTTGAACACCTGGCCTATTATCA
GGGACCTTGTGGATGATATCTTCACTGTACAGAGGATGAAATTAAGTGTGCAACCCAGCTGGTGTGGGAGAGGA
TGAAACTACTCATTGAACCTACAGCTGGTGTGGAGTGGCTGCTGTGCTGTCTCAACATTTTCAAACCTGTTTCCC
CAGAAGTAAAGAACATTTGTATTGTGCTCAGTGGTGGAAATGTAGACTTAACCTCCTCCATAACTTGGGTGAAGC
AGGCTGAAAGGCCAGCTTCTTATCAGTCTGTTTCTGTTT**TAAT**TTACAGAAAAGGAAATGGTGGGAATTCAGTGTC
TTTAGATACTGAAGACATTTTGTTCCTAGTATTGTCAACTCTTAGTTATCAGATTCTTAATGGAGAGTGGCTAT
TTCATTAAGATTTAATAGTTTTTTTTTGGACTAAGTAGTGAAAAAACTTTTATACTTAAGTACATTTTGTCAA
GGCTAAAAAAAAGTCTTGCAAAATGGGGCAGTGGACTGACAGGCTGACATAGAAAATAAACTTTGCCCAATCACA
ACTTGTGCCTCCCATCCCTGGAGTACTGACTGGCACCGGTAAGACAGAATCTCTCTGAATCCATTACTCCATGCC
CCCTTGAGGCACCTGTTGAAGAAATCTCACTTTTTCAGCCAGGGTACTGGTCTGGTACATATGGATCATAAGTCCA
TTTGGGGAAGACTCGTTTATACAGGTTTCATCAGTACTGTGTCTTGAGATTTTAGCTTCCCATCAAAGCTGCATTT
CATGTGGCCATGGGTACCTAGAAAGACATCAGAACAAAGTCGGTCAAATTAAGTAGAAAATTTTAAAGCAATGA
CTTCCAACCCAACAGTCATTTAGCAACACTGCAGAAATGCAGACATGGTCTCAAATCCCGTGTTCCTTACCTAA
AGGTTCTTGTATATGTCCTCTCCGGCCCCACTTCGTTCTCAGTTCCTACTGGTTTAAACCACAGCACATCCTCTTA
GAATCAAAACACATTAAAGACCAAGATGAAACATTTACCCACAAAATGTAAACCCAACTTTTATACCACAAAGGCA
ATCAGATCCCATCCTCCTCCTTCATACCCACCTCTGTTGAAGAACATGTAACGTACTACTGCCATCTTAGTAAAA
ATTTTGAAGGATGACCACTCAGAACAACTCTCTTGATGACCATTCTGTCTGGATCTACTGACATAAGATGGCCT
GTAGCAATGAGGCTGTGCATTCTTAAAGGACAAAAGCAAAAGAGCTATTTAGGAATTTACAGGCCAAAGTCTTCA
TTTATTGCCCAGTCCATTTTAAAGACCCATGCAAGAGCCTGGTTTGTCTATCCCTGCCCTAGCCCAATCTGAGGCTA
AGATTGGTAAACTGTAAGCCCACACTTAACCTTGTCAATAGGTTCTTGAAAACCTTGACTTCAAGAGAAATGATG
TATAACAAAACCATACTTTTTCTCATCAGTTGTTACAAGGAAAGGATGTTGAACAAAAGGCAGTTATTTGAGGAC
TGGCTATACACTGTTTCACGTAAAAGTTGGAGTTTTCATGTTCTATTAAACAATGTTAAATGAAGACTTACTGTA
TTTTGAAAACCATCATTACCTTCTCCATACCATTGGCTCCCAAATTTAAATAAACAAGAGAAAACGGTGTTCAT
CT

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FIGURE 1147

MCAQYCISFADVEKAHINIRDSIHLTPVLTSSILNQLTGRNLFFKCELFQKTGSFKIRGALNAVRSLVPDALERK
PKAVVTHSSGNHGQALTYAAKLEGIPAYIVVPQTAPDCKKLAIQAYGASIVYCEPSDESRENVAKRVTEETEGIM
VHPNQEPAVIAGQGTIALEVLNQVPLVDALVVPVGGGMLAGIAITVKALKPSVKVYAAEPSNADDCYQSKLK GK
LMPNLYPPETIADGVKSSIGLNTWPIIRD LVDDIFTVTEDEIKCATQLVWERMKLLIEPTAGVGVA AVL SQHFQT
VSPEVKNICIVLSGGNVDLTSSITWVKQAERPASYQSVSV

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FIGURE 1148

GGTTTTXTGGXXGGGGGTTTTCAACXCXGGCTCTTGTTCTTTTTTGCAGGACCCATCGATTCTGAATTCGGCACGAG
CATCAGTATGCTTATGGATTTGATGACAGGCATAGCCTGGGCATATCACCTCATTGGTAAAGGGCTAGAGCCTTT
CTTTTTTATGGCACTTCTTTTTTTGAGATAGGGTCTTACTCTGTCACCCTGGCTAGAGTACACTGGTACAATCAC
GGCTCAATGTAGGCTTAACCTCCTGGGCTCAGGTGTATGTCACCTATGCCCGGCTACTTTTTGTATTTTTTGGTAG
AGACGGCTTCGCCACGTTGCCCAGGCTGCAAGCGATATGCCTAGGCTCAAGCGATCTGCCACCTCAACTTCCGG
AAGTGCTGAGATTACAGGTGTGAGCCACTGCACCCAGCCTTTGCTTTATTTTTTATTTTTTGAGAGGTATGATT
TTTCTAGAGATTTTTTCTCATGGCTACTATTAGATCAGGAATGGGTGATTGGAGATTATTAGATTCTAGGTAAAC
TTCTACCACTTTACCCTAATACATAAACTTTTTCTAAATXAATGATGGAAGGAATXAAXXXXAXCXXCCXCXT
XXCCXCTAXTACAAAAXCXCTAGCCCTTAXAACXTTXXGXXAGCTXXXTTXXCCTXXXTXCCCXTXXTCXXXCC
CCXXCCTXXTTXCCXXXCTXXCTCXAXCCCCACXAXTTXCCXTXCTXXXCTXCXXAATAXATTXCXCXCXTXXC
TCCTCAXXXXCTXXTCXXXXCTCXX

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FIGURE 1149

ATTCTTCCATCATTTATTTAGGAAAAAGTTTTATGTATTAGGGTAAAGTGGTAGAAGTTAACCTAGAATCTAAT
AATCTCCAATCACCCATTCCTGATCTAATAGTAGCCATGAGAAAAAATCTCTAGAAAGAATCATACCTCTCAAAA
AATAAAAAATAAAACAAAGGCTGGGTGCAGTGGCTCACACCTGAGCCCAGGAGGTTAAGCCTACATTGAGCCGTG
ATTGTACCAGTGTACTCTAGCCAGGGTGACAGAGTAAGACCCTATCTCAAAAAAAGAAGTGCCATAAAAAAGAAA
GGCTCTAGCCCTTTACCAATGAGGTGATATGCCCAGGCTATGCCTGTGCATCAAATCCATTAACCTTCCTGGTGAT
GGCCATGAGAAAGTCCAGCACACAAACCATGCCCCAGACTGCATCTGTGCATACACAGAGTAAAAGCCCTGCTGC
TATACTATAAAATGGCACCTGAAAATAATCTCTACGGTATGTTTGAAAATTGGCAG

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FIGURE 1150

GC GAAGTGAAGGGTGGCCAGGTGGGGCCAGGCTGACTGAATGTATCTCCTAGCTATGGACTAAATAATACATGG
GGGGAAATAAACAGTATTCATGAGGGTGAAAATGTGACCCAGCAGGAAAATTACAACATTTTTCAATTGACGTT
GAATAGGATGAGTCATGGAATTTAAGTGATTTACTGAAGATTATACTACTGGTAGATAGAAGAGCTAAAGAAAGA
TGGATACTATGATGCTGAATGTGCGGAATCTGTTTGAGCAGCTTGTGCGCCGGGTGGAGATTCTCAGTGAAGGAA
ATGAAGTCCAATTTATCCAGTTGGCGAAGGACTTTGAGGATTTCCGTAAAAAGTGGCAGAGGACTGACCATGAGC
TGGGGAAATACAAGGATCTTTTGATGAAAGCAGAGACTGAGCGAAGTGCTCTGGATGTTAAGCTGAAGCATGCAC
GTAATCAGGTGGATGTAGAGATCAAACGGAGACAGAGAGCTGAGGCTGACTGCGAAAAGCTGGAACGACAGATTC
AGCTGATTCGAGAGATGCTCATGTGTGACACATCTGGCAGCATTCAACTAAGCGAGGAGCAAAAATCAGCTCTGG
CTTTTCTCAACAGAGGCCAACCATCCAGCAGCAATGCTGGGAACAAAAGACTATCAACCATTGATGAATCTGGTT
CCATTTTATCAGATATCAGCTTTGACAAGACTGATGAATCACTGGATTGGGACTCTTCTTTGGTGAAGACTTTCA
AACTGAAGAAGAGAGAAAAGAGGCGCTCTACTAGCCGACAGTTTGTGTGATGGTCCCCCTGGACCTGTAAAGAAAA
CTCGTTCCATTGGCTCTGCAGTAGACCAGGGGAATGAATCCATAGTTGCAAAAACACTACAGTGAAGTGTCCCAATG
ATGGCGGGCCCATCGAAGCTGTGTCCACTATTGAGACTGTGCCATATTGGACCAGGAGCCGAAGGAAAACAGGTA
CTTTACAACCTTGGAACAGTGACTCCACCCTGAACAGCAGGCAGCTGGAGCCAAGAAGTGAAGACAGACAGTGTGG
GCACGCCACAGAGTAATGGAGGGATGCGCCTGCATGACTTTGTTTCTAAGACGGTTATTAAACCTGAATCCTGTG
TTCCATGTGGAAGCGGATAAAATTTGGCAAATTATCTCTGAAGTGTGAGACTGTCTGTGGTCTCTCATCCAG
AATGTGCGGACCGCTGTCCCTTCCCTGCATTCCCTGATAGGAACACCTGTCAAGATTGGAGAGGGAATGC
TGGCAGACTTTGTGTCCAGACTTCTCCAATGATCCCTCCATTGTTGTGCATTGTGTAAATGAGATTGAGCAAA
GAGGTCTGACTGAGACAGGCCTGTATAGGATCTCTGGCTGTGACCGCACAGTAAAGAGCTGAAAGAGAAATTCC
TCAGAGTGAAAACCTGTACCCCTCCTCAGCAAAGTGATGATATCCATGCTATCTGTAGCCTTCTAAAAGACTTTC
TTCGAAACCTCAAAGAACCTCTTCTGACCTTTTCGCCTTAACAGAGCCTTTATGGAAGCAGCAGAAATCACAGATG
AAGACAACAGCATAGCTGCCATGTACCAAGCTGTTGGTGAAGTGGCCAGGCCAACAGGGACACATTAGCTTTCC
TCATGATTCACTTGCAGAGAGTGGCTCAGAGTCCACATACTAAATGGATGTTGCCAATCTGGCTAAAGTCTTTG
GCCCTACAATAGTGGCCATGCTGTGCCAATCCAGACCCAGTGACAATGTTACAGGACATCAAGCGTCAACCCA
AGGTGGTTGAGCGCCTGCTTTCTTGCCTCTGGAGTATTGGAGTCAGTTCATGATGGTGGAGCAAGAGAACATTG
ACCCCTACATGTCATTGAAAACCTCAAATGCCTTTTCAACACCACAGACACCAGATATTAAAGTGAGTTTACTGG
GACCTGTGACCCTCCTGAACATCAGCTTCTCAAGACTCCTTCATCTAGTTCCCTGTACAGAGAGTCCGTTCCA
CCCTCACCAAGAACACTCCTAGATTTGGGAGCAAAAGCAAGTCTGCCACTAACCTAGGACGACAAGGCAACTTTT
TTGCTTCTCCAATGCTCAAGTGAAGTCAACATCTGCCTGTTACTTCCCAGCATTGACTGACTATAAGAAAGGACAC
ATCTGTACTCTGCTCTGCAGCCTCCTGTACTCATTACTACTTTTAGCATTCTCCAGGCTTTTACTCAAGTTTAAAT
TGTGCATGAGGGTTTTATTAAACTATATATATCTCCCTTCCCTTCTCCTCAAGTCACATAATATCAGCACTTTG
TGCTGGTCATTGTTGGGAGCTTTTAGATGAGACATCTTTCCAGGGGTAGAAGGGTTAGTATGGAATTGGTTGTGA
TTCTTTTGGGGAAGGGGTTATTGTTCTTTGGCTTAAAGCCAAATGCTGCTCATAGAATGATCTTTCTCTAGT
TTCATTTAGAACTGATTTCCGTGAGACAATGACAGAAACCCTACCTATCTGATAAGATTAGCTTGTCTCAGGGTG
GGAAGTGGGAGGGCAGGGCAAAGAAAGGATTAGACCAGAGGATTTAGGATGCCTCCTTCTAAGAACCAGAAGTTC
TCATTCCCCATTATGAACTGAGCTATAATATGGAGCTTTCATAAAAATGGGATGCATTGAGGACAGAAGTGTGA
TGGGAGTATGCGTAGCTTTGATTGGATGATTAGGTCTTTAATAGTGTTGAGTGGCACAACTTGTAATGTGAA
AGTACAACCTCGTATTTATCTCTGATGTGCCGCTGGCTGAACTTTGGGTTCAATTGGGGTCAAAGCCAGTTTTCT
TTTAAAATTGAATTCATTCTGATGCTTGGCCCCATACCCCCAACCTTGTCAGTGGAGCCCACTTCTAAAGGT
CAATATATCATCCTTTGGCATCCCACTAACAATAAAGAGTAGGCTATAAGGGAAGATTGTCAATATTTTGTGGT
AAGAAAAGCTACAGTCATTTTTCTTTGCACTTTGGATGCTGAAAATTTTCCCATGGAACATAGCCACATCTAGA
TAGATGTGAGCTTTTTCTTCTGTTAAAATTATTCTTAATGTCTGTAAAAACGATTTTCTTCTGTAGAATGTTTGA
CTTCGTATTGACCCTTATCTGTAAAACACCTATTTGGGATAATATTTGGAAAAAAGTAAATAGCTTTTTTCAAAA
TGAAAAA

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FIGURE 1151

MDTMMLNVRNLFEQLVRRVEILSEGNEVQFIQLAKDFEDFRKKWQRTDHELKGYKDLLMKAETERSALDVKLKHA
RNQVDVEIKRRQRAEADCEKLERQIQLIREMLMCDTSGSIQLSEEQKSALAFLNRGQPSSSNAGNKRLSTIDESG
SILSDISFDKTDDESLDWDSSSLVKTFKLKKREKRRSTSRQFVDGPPGPVKKTRSIGSAVDQGNESIVAKTTVTVPN
DGGPIEAVSTIETVPYWTRSRRTGTLPWNDSSTLNSRQLEPRTETDSVGTTPQSNNGMRLHDFVSKTVIKPESC
VPCGKRIKFGKLSLKCRDCRVVSHPECRDRCPLPCIPTLIGTPVKIGEGMLADFVSQTSPMIPSIVVHCVNEIEQ
RGLTETGLYRISGCDRTVKELKEKFLRVKTVPLLSKVDDIHAICSLKDFLRNLKEPLLTFRNLNRAFMEAAEITD
EDNSIAAMYQAVGELPQANRDTLAFMLIHLQVAQSPHTKMDVANLAKVFGPTIVAHAVPNPDPVTMLQDIKRQP
KVVERLLSLPLEYWSQFMMVEQENIDPLHVIENSNAFSTPQTPDIKVSLLGPVTTPEHQLLKTPSSSSLSQRVRS
TLTKNTPRFGSKSKSATNLGRQGNFFASPMLK

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FIGURE 1152A

GAGATGGTGCCATTGCACTCCAGCCTGAGCGACAAGAGCGAACTCTCTCTCAAAAAAAAAAAAAAAAAATCCAAT
CCTGGCTGGGCGCAGTGGTTCATGCCTGTGCATCACAACACTTTGGAAGGCCAAGGTTAGAGGATTGCTTGAGCCC
AGAAGTTCAAGACCAGCCTACGCAACATGGCAAGAACTTTCTCTACAAAAAACAAAAAAAAAATTTTTTTTTTG
AGACAGGGTTTCACTCTGTCAACCAGGCTGGAGAGCAGTGGCAGGATCTCAGCTCACTGCAACCTCTGCCTCCTGG
GCTTAAGTGTCTTGTCTGCCTCAGCCTCCAGGTAGCTGGGATTATAGGCACGTGCCACCACGCTCAGCTAATTT
TTGTACTTCTTAGTAGAGACTGTGTTTCACCATGTTAGCCAGGCTGGTCTCCAACCTCTTGACCTCAGATAATCCA
CCTGCCTTGGCGTGAGCCACAGCTCCTGGCCAAAAAAAAAATTTTTTTTAAATTAGGCAGGTGTGGTGGCACATG
CTTCAAGTCCAAGCGATTTGAGAGGCTGAGGTGGGAGGATTGCTTATGCCCAGGAGATCGATGATGCAGTGAGCT
ATTGTAGTGCCACTGCCCTCCAGCATGGGCAACAGAGTAAGACCCTGTCTCAAAAAATAAAAAATAAAATAAATC
CAAGCCTTTTGACTCCACAGCCACTCTTTGTATTGTACGTCAAGGGACAGGAGGAGCTTGCCGTTAATTGCTTCC
GGGAACCTAGATACTAGGTTACACTGTCTTTAAATTTAATTTTCTCTGTTCTTGCTCTTACAGGATAACTATAA
TGGGATGAGCTTTGTCTGTATTGGGGCTATCTTGGTCTTTGTAGCCTTCTTTGAAATTGGACCAGGCCCATTC
CTGTTTTATTGTGGCCGAACCTCTTCAGCCAGGGCCCCCGCCAGCTGCGATGGCAGTGGCCGGCTGCTCCAACCTG
GACCTCCAACCTTCTAGTCGGATTGCTCTTCCCTCCGCTGCTGTAAGTAAACTCACCTTATCTTAAAACCAGCC
TATGTAAGCTGACATGAAGATACTCCTTAATAATACAGTAGTCTGGGCCTGGCATGGTGGCTCATGCCTGTAATC
CTAGCACTGTGGGAGGCTGAGGCAGGTGGATCACCTGAGGTGAGGAGTTCAAGACCAGCCTGGCCAACATGGTGA
AATTCAAAAATTAGCTGGGCATGGTGGTGCATGCCTGTAATTCAGCTACTTGGGAGATCGAGGAAGGAGAATCG
CTTAAACCTGGGAGGTGGAGGTTCAGCGAGCTGAGATCGCGCTACTGCACTCTAGCCTGCTCGATGGAAGCAAG
ACTCCATCCCTAAATAAATAAAAAAATACAGCAGTCCCTCCTCTTCTTCAGTTTCAGTTACCTGTAGTCTAAAAA
TATTAAATGGAATTTGCAGAAATAAATAATTCATAAAGTTTAAATTTGCGGCCAGACACAGTGGCTCAAGCCTGT
AATTCCAGCACTTTGAGAGGCCTAGGCGGGTGGATAACTTGAGGTGAGGAGTTGGGGACCAACCTGACTATCATG
GTGAAACCCTGTTTCTACAATAAATACAAAAAATTAGGCCGGGTGTCGTGGCTCATGACTGTAATCCCAGTGAGCG
AGATCACACCAATTGCGGTAGCACACACCTGTAGTCTTAGCTACTCAGAAGACTGAGGCAAGAGAATCACTTAAAC
CCAGGAGGTGTTTCATGGTGAGCTGTGATCAACCTTCTGCTCTCCAGCCTGGGTGACAGAGCGAGATTCCGTCTCA
AAAAAAAAAAAAATTCTATAAATAGAGATGGAGTTGCCAGGTTAGTCTCAAACTGCTGGGTTCCAGTGATCCTCCC
ACCTTGACCTCCCAAAGTGCTGGGATTATGGGCGTGAGCCACCGCACTCGGCCAGAAACACAGATTTTAAAAAT
AATACTCAAAAGTCCAAAAATACTCAGTAGACATTTGGAAGCATCTAACTGTAATGAAATGGAATGACAGAAAGA
AACTAGAGAGAACTACAGTAAGTTAGCAATGGAATCATAAGCGAATCTGAAGAAACCTGTTTTTATTAAATATG
GAAGGGTTATAGCTTGAAGCCTATTGGAATATGAATGTGAAGGAAATTGACTTTGTCAATGACCAGATTTTTAT
ATCAACCTTCCTTTTTTCTGTCTTTCTCTAGCACTATTTAGGAGCCTACGTTTTTATTATCTTCACCGCTTCC
TCATTACCTTCTTGGCTTTTACCTTCTCAAAGTCCCTGAGACCCGTGGCAGGACTTTTGAGGATATCACACGGG
CCTTTGAAGGGCAGGCACACGGTGCAGATAGATCTGGAAGGACGGCGTCATGGAGATGAACAGCATCGAGCCTG
CTAAGGAGACCACCACCAATGTCTAAGTCGTGCCCTCCTTCCACCTCCCTCCCGGCATGGGAAAGCCACCTCTCCC
TCAACAAGGGAGAGACCTCATCAGGATGAACCCAGGACGCTTCTGAATGCTGCTACTTAATTCCTTTCTCATCCC
ACGCACTCCATGAGCACCCCAAGGCTGCGGTTTGTGGATCTTCAATGGCTTTTTAAATTTTATTTCTGGACAT
CCTCTTCTGCTTAGGAGAGACCGAGTGAACCTACCTTCAATTCAGGAGGGATTGGCCGCTTGGCACATGACAACT
TTGCCAGCTTTTCTCTCCCTTGGGTTCTGATATTGCCGCACTAGGGGATATAGGAGAGGAAAAGTAAGGTGCAGTT
CCCCAACCTCAGACTTACCAGGAAGCAGATACATATGAGTGTGGAAGCCGGAGGGTGTATGTAAGAGCACCT
TCCTCACTTCCATACAGCTCTACGTGGCAAAATTAAGTTTATTTTATTTTATCTCTGGTTTAAATTACATA
ATTTTTTTTTTTTTTACTTTAAGTTTCAGGATACATGTGCCGAATGTGCAGGTTTGTTACATAGGTATATATAGCC
ATGATGGAATATTTATTTTTTTAAGCGTAATTTTGCCAAATAATAAAACAGAAGGAAATTGAGATTAGAGGGA
GGTGTTTAAAGAGAGGTTATAGAGTAGAAGATTTGATGCTGGAGAGGTTAAGGTGCAATAAGAAATTTAGGGAGAA
ATGTTGTTTATTATTGGAGGGTAAATGATGTGGTGCCTGAGGTCTGTACGTTACCTCTTAAACAATTTCTGTCTT
CAGATGGAACCTCTTTAACTTCTCGTAAAAGTCATATACCTATATAATAAAGCTACTGATTTCTTTGGAGCTTT
TTTCTTTAAGATAATAGTTTACATGTAGTAGTACTTGAAATCTAGGATTATTAATAATAATAGGGCATTGTAGTTA
ATGATGGTTGATGGGTTCTAATTTTGGATGGAGTCCAGGGAAGAGAAAGTGATTTCTAGAAAGCCTGTTCCCTC
ACTGGATGAAATAACTCCTTCTTGTAGTAGTCTCATTACTTTTGAAGTAATCCCGCCACCTATCTCGTGGGAGAG
CCATCCAATAAGAAACCTAAATAATTGGTTCTTGGTAGAGATTCATTATTTTTCCACTTGTCTTTAGGAGA

FIGURE 1152B

TTTTAGGTGTTGATTTTCTGTTGTATTTTAACTCATACCTTTAAAGGAATTCCCCAAAGAATGTTTATAGCAAAC
TTGGAATTTGTAACTCAGCTCTGGGAGAGGATTTTTTCTGAGCGATTATTATCTAAAGTGTGTTGTTGCTTTA
GGCTCACGGCACGCTTGCATATGTCTGTTACCATGTCACTGTGGTCCTATGCCGAATGCCCTCAGGGGACTTGAA
TCTTTCCAATAAACAGGTTTAGACAGTATGAGTCAATGTGCAGTGTAGCCACACTTGAGAGGATGAATGTATG
TGCACTGTCACTTTGCTCTGGGTGGAAGTACGTTATTGTTGACTTATTTTCTCTGTGTTTGTTCCTACAGCCCCCT
TTTTCATATGTTGCTCAGTCTCCCTTTCCCTTCTTGGTGCTTACACATCTCAGACCCTTTAGCCAAACCCTTGTC
AGTGACAGTATTTTGGTTCTTAGTTCTCACTGTTCCCTCTGCTCCTGGAGCCTTTGAATAAAAAATGCACGTAGCT
GAGGCCGGATGCGGTGGCTCACGCCTGTAATCCCAGCACTTTGGGAGGCCTAGGCGGGCGGTGAGGGGTTGAGA
CCAGTCTGGCCAACATCGTGAAACCCTGTCTCTACTAAAAATGCAAAAATTAGCCGGGCGTGGTGGCGGGCGCCT
GTAATCCCAGCTACTTGGGAAGCTGAGGCGGGGAGAATCATGTGAACCCGGGACGCAGGGGTTGCAGTGAGCGGAG
ATCGCATCATTGCACTCTAGCCTGGGCCACAGGGCGAGACTCCGTCTCAAAAAAAAAAAAAATGCACATAGCTATC
GAGTGTGCTTTAGCTTGAAAAGGTGACCTTGCAACTTCATGTCAACTTCTGGCTCCTCAAACAGTAGGTTGGCAG
TAAGGCAGGGTCCCATTTCTCACTGAGAAGATTGTGAATATTTCCATATGGATTTTCTATTGTTACTCTGTTCT
TTGTTTTAAATAAAAAATTCTGAATGTACACGACATTATGGGCTTATTTACTTTTTGTCTTCTGTACCACAAA
ATGAGCTCTAAATCCTGACTTGGCTACTC

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FIGURE 1153

ATAATCTTCATTCCCTGGGTTCTCCACTTCAATAGTCGTGGCAGTGCTGCTGAATTTGCAGTTTTTCACATCATGA
CCAGGATTCTGGAAGCTACAAACAGTTTGTTTTACCTCTGCCTCCTGGTTTTTCATACTCTGCACACCATCCTCG
GGGTCCAGTGTCTCCCTTTGCATAACCTGCTGCATTGCATTGACAGTGGAGTGTGTCTTCTACTGAAACAGCTG
TCATAAGGCTCATGAAAGATCTGGATAATACAGAGAAAAATGAAAAACTGAAATTCAGTATCATTGTGCGGCTTC
CTCCGCTTATTGGGCAGAAGATTTGTAGACTTTGGGATCATCCTATGAGTTCTAACATCATTTTCGCGGAACACG
TGACGCGACTGCTTCAGAACTATAAGAAACAGCCTCGGAATTCTATGATTAACAAGTCATCGTTTCAGTGTAGAAT
TTCTGCCTCTGAACTACTTCATTGAAATTCCTGACAGATATAGAGTCCTCCAATCAAGCCCTGTATCCTTTTGAAG
GACATGACAATGTGGATGCAGAATTTGTAGAGGAAGCAGCTCTGAAACACACCGCGATGCTTTTAGGCTTATGAA
AAAGAAAACGCAATTGGATCTGCTGCTGCCATTTTAACTCTTGCTCATTAACTTACTCCTCTGAGAATTCCTTAA
CAATATTTAAAAATTGGTAACAAAAATAGTTTAGCCATAATTGTTTAGCCATGTGAGTTTCAGGTTGGTACACGTT
CAGACAGAACTGCTGTATCACATTCCAATTTTGAATAGCCAGTGAGCAATCAAGTGTAGAGAAATGATAAATGGC
CTAAGAAGGCATACAGTGGCATAAACGATGCTCTTCCTAGTAGCTTAATAGGCCCAAGCTAGTTTCTGTTGCA
CTCTGAAATAAAATATGCTTTAAAAATGTAGGGAACAGTGCTTAGAAAAGCAAAACTAGGTGTGTCATTGAAAT
AATAGGCATAAAAAATTAAATGTTACATAAGAACACTATTTGGAAAGAGGGTCCTTTTAAAACTGAATTTGTACT
AAATCAGATTTGCCATGTCCAGTACAGAATAATTTGTACTTAGTATTTGCAGCAGGGTTTGTCTTTGTGAATTCA
GATGAAACATATTTATTTTTTTTTTATTTATAAAAGGTTGATTTAGGAATATTTTGTGAGTCATTAAAAACCTGA
AAACATAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 1154A

CTCTCAGTGTCTCCAACCTTTGCGCTGGAAGAAAACTTCCCGCGCGCCGGCAGAACTGCAGCGCCTCCTTTTAGT
GACTCCGGGAGCTTCGGCTGTAGCCGGCTCTGCGCGCCCTTCCAACGAATAATAGAAATTGTTAATTTTAACAAT
CCAGAGCAGGCCAACGAGGCTTTGCTCTCCCGACCCGAACATAAGCTCCCTCGCTCCGTGCGCTGCTACGAGCGG
TGTCTCCTGGGGCTCCAATGCAGCGAGCTGTGCCCGAGGGGTTTCGGAAGGCGCAAGCTGGGCAGCGACATGGGGA
ACGCGGAGCGGGCTCCGGGGTCTCGGAGCTTTGGGCCCCGTACCCACGCTGCTGCTGCTCGCCGCGGCGCTACTGG
CCGTGTGCGGACGCACTCGGGCGCCCCCTCCGAGGAGGACGAGGAGCTAGTGGTGCCGGAGCTGGAGCGCGCCCCGG
GACACGGGACCACGCGCCTCCGCCTGCACGCCTTTGACCAGCAGCTGGATCTGGAGCTGCGGCCCCGACAGCAGCT
TTTTGGCGCCCGGCTTACGCTCCAGAACGTGGGGCGCAATCCGGGTCCGAGACGCCGCTTCCGGAAACCGACC
TGGCGCACTGCTTCTACTCCGGCACCGTGAATGGCGATCCCAGCTCGGCTGCCGCCCTCAGCCTCTGCGAGGGCG
TGCGCGGCGCCTTCTACCTGCTGGGGGAGGCGTATTTTCATCCAGCCGCTGCCCGCCGCCAGCGAGCGCCTCGCCA
CCGCCGCCCCAGGGGAGAAGCCGCCCGGCACCACTACAGTTCCACCTCCTGCGGCGGAATCGGCAGGGCGACGTGC
GCGGCACGTGCGGGGTCTGTGGACGACGAGCCCCGGCCGACTGGGAAAGCGGAGACCGAAGACGAGGACGAAGGGA
CTGAGGGCGAGGACGAAGGGGCTCAGTGGTCGCCCGCAGGACCCGGCACTGCAAGGCGTAGGACAGCCCCACAGGAA
CTGGAAGCATAAGAAAGAAGCGATTTGTGTCCAGTACCGCTATGTGGAACCATGCTTGTGGCAGACCAGTCTGA
TGGCAGAATTCCACGGCAGTGGTCTAAAGCATTACCTTCTCAGTTGTTTTCGGTGGCAGCCAGATTGTACAAAC
ACCCAGCATTTCGTAATTAGTTAGCTGGTGGTGGTGAAGATCTTGGTCATCCACGATGAACAGAAGGGGCCGG
AAGTGACCTCCAATGCTGCCCTCACTCTGCGGAACCTTTGCAACTGGCAGAAGCAGCACAACCCACCCAGTGACC
GGGATGCAGAGCACTATGACACAGCAATTCTTTTACCAGACAGGACTTGTGTGGGTCCCAGACATGTGATACTC
TTGGGATGGCTGATGTTGGAAGTGTGTGTGATCCGAGCAGAAGCTGCTCCGTCATAGAAGATGATGGTTTACAAG
CTGCCTTACCACAGCCCATGAATTAGGCCACGTGTTTAACATGCCACATGATGATGCAAAGCAGTGTGCCAGCC
TTAATGGTGTGAACCAGGATTCCACATGATGGCGTCAATGCTTTCCAACCTGGACCACAGCCAGCCTTGGTCTC
CTTGCAGTGCCTACATGATTACATCATTTTCTGGATAATGGTCTATGGGGAATGTTTGATGGACAAGCCTCAGAATC
CCATACAGCTCCCAGGCGATCTCCCTGGCACCTCGTACGATGCCAACCGGCAGTGCCAGTTTACATTTGGGGAGG
ACTCCAAACACTGCCCCGATGCAGCCAGCACATGTAGCACCTTGTGGTGTACCGGCACCTCTGGTGGGGTGTGG
TGTGTCAAACCAAACACTTCCCGTGGGCGGATGGCACCAGCTGTGGAGAAGGGAAATGGTGTATCAACGGCAAGT
GTGTGAACAAAACCGACAGAAAGCATTTTGTATACGCCCTTTTCATGGAAGCTGGGGAATGTGGGGGCCTTGGGGAG
ACTGTTTCGAGAACGTGCGGTGGAGGAGTCCAGTACACGATGAGGGAATGTGACAACCCAGTCCCAAAGAATGGAG
GGAAGTACTGTGAAGGCAAACGAGTGCCTACAGATCCTGTAACCTTGAGGACTGTCCAGACAATAATGGAAAAA
CCTTTAGAGAGGAACAATGTGAAGCACACAACGAGTTTCAAAGCTTCCCTTTGGGAGTGGGCCTGCGGTGGAAT
GGATTCCCAAGTACGCTGGCGTCTACCAAAGGACAGGTGCAAGCTCATCTGCCAAGCCAAAGGCATTGGCTACT
TCTTCGTTTTGCAGCCCAAGGTTGTAGATGGTACTCCATGTAGCCAGATTCCACCTCTGTCTGTGTGCAAGGAC
AGTGTGTAAGCTGGTTGTGATCGCATCATAGACTCCAAAAAGAAGTTTGATAAATGTGGTGTGTGCGGGGGAA
ATGGATCTACTTGTAAAAAATATCAGGATCAGTTACTAGTGCAAACCTGGATATCATGATATCATCACAATTC
CAACTGGAGCCACCAACATCGAAGTGAAACAGCGGAACCAGAGGGGATCCAGGAACAATGGCAGCTTCTTGCCA
TCAAAGCTGCTGATGGCACATATATTCTTAATGGTGACTACACTTTGTCCACCTTAGAGCAAGACATTATGTACA
AAGGTGTTGTCTTGAGGTACAGCGGCTCCTCTGCGGCATTGGAAAGAATTCGCAGCTTTAGCCCTCTCAAAGAGC
CCTTGACCATCCAGGTTCTTACTGTGGGCAATGCCCTTCGACCTAAATTAATACACCTACTTCGTAAAGAAGA
AGAAGGAATCTTTCAATGCTATCCCCACTTTTTTCAGCATGGGTCAATGAAGAGTGGGGCGAATGTTCTAAGTCAT
GTGAATTGGGTGGCAGAGAAGACTGGTAGAATGCCGAGACATTAATGGACAGCCTGCTTCCGAGTGTGCAAAGG
AAGTGAAAGCCAGCCAGCACCAGACCTTGTGCAGACCATCCCTGCCCCAGTGGCAGCTGGGGGAGTGGTCATCAT
GTTCTAAGACCTGTGGGAAGGGTTACAAAAAAGAAGCTTGAAGTGTCTGTCCCATGATGGAGGGGTGTTATCTC
ATGAGAGCTGTGATCCTTTAAAGAAACCTAAACATTTTCATAGACTTTTGCACAATGGCAGAATGCAGTTAAGTGG
TTTAAGTGGTGTAGCTTTGAGGGCAAGGCAAAGTGAGGAAGGGCTGGTGCAGGGAAAGCAAGAAGGCTGGAGGG
ATCCAGCGTATCTTGCCAGTAACAGTGAGGTGTATCAGTAAGGTGGGATTATGGGGGTAGATAGAAAAGGAGTT
GAATCATCAGAGTAACTGCCAGTTGCAAATTTGATAGGATAGTTAGTGAGGATTATTAACCTCTGAGCAGTGAT
ATAGCATAATAAAGCCCCGGGCATTATTATTATTATTCTTTTGTACATCTATTACAAGTTTAGAAAAAACAAA
GCAATTGTCAAAAAAAGTTAGAATAATTACAACCCCTGTTTCCTGGTACTTATCAAATAACTTAGTATCATGGGG
GTTGGGAAATGAAAAGTAGGAGAAAAGTGAGATTTTACTAAGACCTGTTTTACTTTACCTTACTAACAATGGGG

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FIGURE 1154B

GGAGAAAGGAGTACAAATAGGATCTTTGACCAGCACTGTTTATGGCTGCTATGGTTTCAGAGAATGTTTATACAT
TATTTCTACCGAGAATTAAACTTCAGATTGTTCAACATGAGAGAAAGGCTCAGCAACGTGAAATAACGCAAATG
GCTTCCTCTTTCTTTTTTGGACCATCTCAGTCTTTATTTGTGTAATTCATTTTGAGGAAAAACAACCTCCATGT
ATTTATTCAAGTGCATTAAAGTCTACAATGGAAAAAAGCAGTGAAGCATTAGATGCTGGTAAAAGCTAGAGGAG
ACACAATGAGCTTAGTACCTCCAACCTTCTTTCTTTCTTACCATGTAACCCTGCTTTGGGAATATGGATGTAAAG
AAGTAACTTGTGTCTCATGAAAATCAGTACAATCACACAAGGAGGATGAAACGCCGGAACAAAAATGAGGTGTGT
AGAACAGGGTCCACAGGTTTGGGGACATTGAGATCACTTGTCTTGTGGTGGGGAGGCTGCTGAGGGGTAGCAGG
TCCATCTCCAGCAGCTGGTCCAACAGTCGTATCCTGGTGAATGTCTGTTTCAGCTCTTCTGTGAGAATATGATTTT
TTCCATATGTATATAGTAAATATGTTACTATAAATTACATGTACTTTATAAGTATTGGTTTGGGTGTTCTTCC
AAGAAGGACTATAGTTAGTAATAAATGCCTATAATAACATATTTATTTTATACATTTATTTCTAATGAAAAAA
CTTTTAAATTATATCGCTTTTGTGGAAGTGCATATAAAATAGAGTATTTATACAATATATGTTACTAGAAATAAA
AGAACACTTTTGGAAAAA

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FIGURE 1155

MGNAERAPGSRSGPVPTLLLLAAALLAVSDALGRPSEDEELVPELERAPGHGTTRLRLHAFDQQLDLELRPD
SSFLAPGFTLQNVGRKSGSETPLPETDLAHCIFYSGTVNGDPSSAAALSLCEGVRGAFYLLGEAYFIQPLPAASER
LATAAPGEKPPAPLQFHLLRRNRQGDVGGTCGVVDDEPRPTGKAETEDEGTEGEDEGAQWSPQDPALQGVGQP
TGTGSIRKKRFVSSHRYVETMLVADQSMAEFHGSLKHYLLTLFSVAARLYKHPSIRNSVSLVVVKILVIHDEQK
GPEVTSNAALTLRNFCNWQKQHNPPSDRDAEHYDTAILFTRQDLCGSQTCDTLGMADVGTVCDP SRSCSVIEDDG
LQAAFTTAHELGHVFNMPHDDAKQCASLNGVNQDSHMMASMLSNLDHSQPWSPCSAYMITSF LDNNGHGECLMDKP
QNP IQLPGDLPGTSYDANRQCQFTFGEDSKHCPDAASTCSTLWCTGTSGGVLVCQTKHFPWADGTSCGEGKWCIN
GKCVNKTD RKHFDTPFHGSWGMWGPWGDCSRTC GGGVQYTMRECDNPVPKNGGKYCEGKRVRYRSCNLEDCPDNN
GKTFREEQCEAHNEFSKASFGSGPAVEWIPKYAGVSPKDRCKLICQAKGIGYFFVLQPKVVDGTSPDSTSV CV
QGQCVKAGCDRIIDSKKKFDKCGVCGNGSTCKKISGSVTSAPPGYHDIITIPTGATNIEVKQRNQRGSRNNGSF
LAIKAADGTIILNGDYTLSTLEQDIMYKGVVLRYSGSSAALERIRSF SPLKEPLTIQVLTVGNALRPKIKYTYFV
KKKKESFNAIPTFSAWVIEEWGECSKSCELGWQRRLVECRDINGQPASECAKEVKPASTRPCADHPCPQWQLGEW
SSCSKTCGKGYKKRSLKCLSHDGGVLSHESCDPLKKPKHFIDFCTMAECS

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FIGURE 1156

GGCGGGCAGAAGTTGGAAACATGCGGCTGTCGGTCGCTGCAGCGATCTCCCATGGCCGCGTATTTGCCCGTATGG
GCCTCGGTCCCGAGTCCCGCATCCATCTGTTGCGGAAC TTGCTCACAGGGCTGGTGCGGCACGAACGCATCGAGG
CACCATGGGCGCGTGTGGACGAAATGAGGGGCTACGCGGAGAAGCTCATCGACTATGGGAAGCTGGGAGACACTA
ACGAACGAGCCATGCGCATGGCTGACTTCTGGCTCACAGAGAAGGATTTGATCCCAAAGCTGTTTCAAGTACTGG
CCCCTCGGTACAAAGATCAAAC TGGGGGCTACACAAGAATGCTGCAGATCCCAAATCGGAGTTTGGATCGGGCCA
AGATGGCAGTGATCGAGTATAAAGGGAATTGCCTCCCACCCCTGCCTCTGCCTCGCAGAGACAGCCACCTTACAC
TCCTAAACCAGCTGCTGCAGGGTTTGCGGCAGGACCTCAGGCAAAGCCAGGAAGCAAGCAACCACAGCTCCCACA
CAGCTCAAACACCAGGGATTTAACTGGATCTGAAGAGTCTGCAGCCCTTAATCAGTACCCATGATCACAGGCCTT
TGGAGCACTTTTACTCTCTGAGAAGAACTGGAGCTAGAGATGTAAATGGACAGTCTTGATGGGGTTGAGAACCT
TCTGGGGAGCCAGATGACCCCTCTTTGCACAATAGATAAAAGTCTTTATATGAATATATATAAATTTATTTATT
TTTTCTTCTGTGGGATTTCTGGAGAATGAGAATTATCCAAATGCTCAGTCTACCTGAGATAGTAAATTCATGG
CTTATGCTTCTGGTCCTTAAATTTGGGTTATTTTGGTTAGTG

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FIGURE 1157

MRLSVAAAISHGRVFRRMGLGPESRIHLLRNLLTGLVRHERIEAPWARVDEMRYAEKLIDYGKLGDTNERAMRM
ADFWLTEKDLIPKLFQVLAPRYKDQTGGYTRMLQIPNRSLDRAKMAVIEYKGNCLPPLPLPRRDSHLTLLNQLLO
GLRQDLRQSQEASNHSSHTAQTPGI

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FIGURE 1158

GGGGGAAACGGAAGTGAGCGGCGGGGTCGACTGACGGTAACGGGGCAGAGAGGCTGTTTCGCAGAGCTGCGGAAG
ATGAATGCCAGAGGACTTGATCTGAGCTAAAGGACAGTATTCCAGTTACTGAACTTTCAGCAAGTGGACCTTTT
GAAAGTCATGATCTTCTTCGGAAAGGTTTTTCTTGTGTGAAAAATGAACTTTTGCCTAGTCATCCCCTTGAATTA
TCAGAAAAAATTTCCAGCTCAACCAAGATAAAATGAATTTTCCACACTGAGAAACATTCAGGGTCTATTTGCT
CCGCTAAAATTACAGATGGAATTCAAGGCAGTGCAGCAGGTTTCAGCGTCTTCCATTTCTTTCAAGCTCAAATCTT
TCACTGGATGTTTTGAGGGGTAATGATGAGACTATTGGATTTGAGGATATTCTTAATGATCCATCACAAGCGAA
GTCATGGGAGAGCCCACTTGATGGTGAATATAAACTTGGTTTACTG**TAAT**AGTGTGCTGTTTCATGGAAACCGA
GGGCTGCATCTTGTTTATAGTCATCTTTGTACTGTAATTTGATGTACACAACATTAAAAGTACTGACACCTGAGA
ATTTCTGCTCAAGTAGTATCAGTGATCATTTAAATTTGGAGGGGCTTTGGTTTACAGCCATGTGACAATTTAA
AGCACTAAAGGGAGATCATGTTAAAGCTCTTAATTTATATTAACAGTAGCCTTTGTCTTTAAAAAAGTTGTTG
CTCATGAATATTATAAAATGATCTACAGGTTTCAATTCAACCTGTTTCTAGGTTTTTTTGTAATTTAGTTTTGA
TTAAGCATTATAAGCATTGAGTCTATAAACTTTATAGTAGCATCTTTCAGAATAAACATTTTAAATTGATTTCA
GTGGCAACTCTCAAATTGATTACAATATGAGATATATCAGTGTCGTCCATTAACTCATAAGAATAATATTTAC
TGTGTCAGTGCTATTTTAGGATTATAGTTATTGTTTGATTATTTTCAGGTTGAAAAGTAGAAGTTCCAAGGTTTTG
ATTTTGGTCTGGTCTTTAAGTGAAAAATTAAAGCAACCAGTAGATGTAGGTTAACTTTTACTTCATAGACTTAA
TATGTGATTAATATATTGCCAAGCAACACTGTAAAGAAAAGTAAACTCATTTTTTCTTGTTCTTAATTTATAT
ATTACAAGATACTGTAAGGTATTCTTTATGAAGTTGATATATAAAAAATTACATTTTGTAGAACATTAGTGAATGG
ATCATCTTTTACAATTAAAAGTATATTTTGATTATCAGTTTCTTAGCAAAAAAAAAAAAAAAAAAAAAAAAAAA
AA

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FIGURE 1159

MNARGLGSELKDSIPVTELSASGPFESHDLRLKGFSCVKNELLPSHPLELSEKNFQLNQDKMNFSTLRNIQGLFA
PLKLQMEFKAVQQVQRLPFLSSSNLSLDVLRGNDETIGFEDIINDPSQSEVMGEPHLMVEYKLGLL

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FIGURE 1160A

TGAGGCGCGGGAGGCCGCGCCCCGCGGCTCGCTGTGCGTGGGAGGGCGCGAGCGAACGCGGGCGAGGAGCGGCC
GAGCCGCTGAAGAGGAGCTGGGCGCCGGCCGCCCCGCGCTCGGCCCGCGGATCGCCTCCGCCCGGTCTTCGC
CGGCCCCGGCCCCCTGGCGAGATGCCGTGTGGGAGGATTGGCTCAGCCACCCGCTGGGAATCGTGCAGGGATTCT
TCGCCCAAAATGGAGTTAATCCTGACTGGGAGAAGAAAGTAATTGAGTATTTTAAGGAAAAGCTGAAGGAAAATA
ATGCTCCTAAGTGGGTACCATCACTGAACGAAGTTCCCTTCATTATTTGAAACCTAATAGTTTTGTGAAATTC
GTTGCATGATTCAAGATATGTTTGACCCTGAGTTTTACATGGGAGTTTATGAAACGGTTAACCAAAACACAAAAG
CACATGTTCTTCATTTTGGAATAATAGAGATGTAGCAGAGTGTGGGCTCAACAAGAACTTGATTTAACTCTC
CACGAAATACCACTTTTGAAAGACAGACTTTCTATTGTGTCCGGTGCCTGGGGAATCTACGTGGGTAAAAGAAG
CCTATGTTAATGCAAACCAAGCTCGAGTCAGTCCCTCAACATCCTACACTCCTAGTCGCCACAAGAGGAGTTATG
AAGATGATGACGATATGGACCTACAGCCCAATAAGCAGAAAAGACCAACATGCAGGTGCCAGACAAGCAGGGAGTG
TTGGTGGTCTTCAATGGTGTGGAGAGCCAAAACGTTTAGAAACTGAAGCTTCTACTGGGCAACAGCTGAACTCTC
TGAACCTTGTCTTCTCCTTTTGATTTGAATTTTCCATTGCCAGGAGAGAAGGGCCCTGCATGCCTTGTGAAGGTTT
ATGAAGATTGGGATTGTTTCAAAGTAAATGACATTCTTGAGCTATATGGCATACTGTCTGTGGATCCTGTGCTGA
GTATACTGAATAATGATGAAAGGGATGCCTCTGCACTGCTGGATCCGATGGAGTGCACAGACACAGCAGAGGAGC
AGAGAGTACACAGTCCCTCCTGCTTCATTAGTGCCGAGAATTCATGTGATCTTAGCCCAGAAGTTGCAACACATCA
ACCCATTATTGCCTGCCTGCCTTAACAAAGAGGAGAGCAAAACCTGTAAGTTTGTTCAGTTTCATGTCCGAAT
TGTCTCCAGTCAGAGCAGAAGTTCTTGGGTTCTTACTCATGCCCTTCTGGGGGATAGTTTGGCTGCTGAATACC
TTATATTACATCTCATCTCCACAGTATATACAAGAAGAGATGTCTTCCACTAGGAAAATTTACAGTTAACTTGA
GTGGTTGCCCACGGAATAGTACCTTCACAGAACACTTGTATCGAATTATTCAACATCTTGTTCAGCATCTTTTC
GTCTGCAGATGACTATAGAGAACATGAACCATTTGAAATTCATTCCCCACAAAGACTACACAGCCAATCGCTTG
TCAGTGGGCTCCTCCAGCTGCCAGCAATACTTCCCTTGTAAATCGATGAGACTCTCCTGGAACAGGGGCGAGCTGG
ATACCCCAGGTGTTTATAATGTGACAGCCCTGAGCAACCTCATAACGTGGCAGAAGGTGGATTATGACTTCAGCT
ACCATCAGATGGAATTCCCCTGCAATATTAACGTTTTTCACTTCCGAGGGGAGGTCACTCCTCCCGGCAGACT
GCCAGATTCACCTACAGCCCCAGCTAATTCCACCAAACATGGAGGAGTACATGAACAGCCTTCTCTCAGCGGTGC
TGCTTCCGTGCTGAACAAATTCGCAATTTATCTAACTCTTTTGAGATTCTTGGAATATAGCATATCTGATGAAA
TAACCAAGGCAGTTGAAGATGACTTTGTGGAATGCGGAAGAAGACCCCTCAGAGCATCACTGCTGATGATCTTC
ACCAGCTGCTCGTGGTGGCTCGGTGTCTGTCTCTCAGTGCTGGTCAGACAACGCTGTCAAGAGAACGATGGCTGA
GAGCAAAGCAGCTAGAGTCTTTAAGAAGAACGAGGCTTCAGCAGCAAAAATGTGTGAATGGAATGAACTTTAA
GATGTAATACCTATGAAGAGTAATGGGCAAACCTGTAGCCACATAATTGTAAAATTCAGATATTCATTTATACCAC
ATTGTTTTATAGGTAATTTCTATCACAAACCAGTGACATTTCCCTGAAATCAAGCCTGGTAACACCTGATGTTTAT
ATGATATTAGTAAGGACTTTTACCTTACTGATTTTCATGGAGCTTTTGAAGTTTGTTTTATAATAATTATATAAA
TTAGTAATGATGTAAAAAAGTATTTGATATTAAAAGTTTAAATATTGATAATGTTGCTGATTGTACCATTTCTT
AGCTTCAGCTGAGTCATAGGCCAGACTGTTGAAATGCTGAAATGAAGAAGGTTGTTGCAGTTTCAAAGTCAGAGG
AATCGTGCTTCGGATTTCTTATGTTTTCTAGTTCTCTGTTTTTCCAGTTCACAGTGGGTTGGGGTGCATTTCAGTA
GTCCATCTTTGGGGAACGGAGGCGTACTTGCCATTGATTCACATGACTACATGAAATTCGTACTGTCAATTTCCC
AGATGTTTGGCCACAGAACTTTTCCCACTTAACATTTGTTAACAGCCTGCAAACTAACTTGTACATGGCAG
TGGTTCCCAGACTTTTGTATTTTATGGACCGGTAGTAATATTTCCAAAAATCTGGGGTACTATAAGGTTGCCAAT
TTACCTTGCCAAGTAATCCGAATAAATCACTGTATTATCACCATTTTTTCTATAAAAGGAAAGGACAATCTATCT
CTGAATAAGAGGAGTCCTTTAAACGGAATGAATGTGGCTTTTGGGGGCAAAAGAAACCAAGACACTACATTGTCT
TTATTTTCTCCTATCCCAGTGCAATTTGAGAACCATGCATAAGGGAATGCTGTGCTACAAAGCTGTGCCCAATAT
GAAAACAAAATAGGAACTTAAAAAGCAATACCCCTTTAGAAAGTTTTATTTTCTTAAATGTCATTGAGTTGC
TTTGATTCTATTGGATTTTTTGGCATTTTTTTATGGGATCATCAGTTGGTTCCAAGTATGTTAGATCAGCTAACATC
TGCTACTCCAGTAACAGCCTCGTACAACCTGCAGGTAGGTTTTCTCCAGACCAATTAGTTTTAATAGAGCAAACTA
ACAACAGACTGTAGTAGCATGGTTATGGCAACCAGAACTTCAGAAAGGTTAGGACATTACTTTTTAAGCTGTCA
GTGGTATCAAATAACTTACCTAGTTGGAGGCAGATAAAGGATCCCTTACGTTTTTCTTATAAGGCCTAAATTGA
AATTGTTAACCAAGGAAACAGGGTCAGCCTTGAAAAATCAAGGAATTCATTGTACCTAATAACTGAAGTAAAAAT
AACTAGTTGTTCACTTTTCTAAACTCAAATCTATTTTTATAAACAAATGTAAATAATGTTTATATTAGAGTTG
AACTGGTTTTCATTTTTATAACTGGTAGACTAGACCTTCCTTAACTTTTAGAAATAAAATGAAGGCTTCACTGG

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FIGURE 1160B

ATTTGTGAGGATAAAAATACATTTTCTTTAATTGTCCTAGAGCAAAGTACATTAGTCACCATGTGTTTTTTGTGCC
AATGTAACCTGTAATTTACCAAAGAAAAATACATACATTGCTTGGTCTTGCAGAAAAGTTCCTTGAAAGAACCT
TTCCAATAAATAAAACGTCCCAAATTAGCAGTACCTTGGGCTGTTTTTCATGAGTAAGAAGATTACCATCCCAT
GTGATCTGTGTGAAAAAGACCATGTCCTCTTGGTGAAGACATGAGAGAGCTGAACTGAAGTGGAGGAGGTGGT
GCAAGAGGGACCTTCCTGCTCAAGGCCCGCCAGGCAGCGGAATAGAGTGCAGTGCTTGGCTGCAGAAACCCTTT
GTCCCTCACCTATATATACACGGACAGTCAAGTTTGTTGCTCTAACGTAAGGCACAGCGTTAATCCTGTATGGCC
AGGAAACTGAGTAGACTCCTGTGTAACCCTGTTTGGAACCTTGCCTTCTTAAATGATTTTC

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FIGURE 1161

MPCGEDWLSHPLGIVQGFFAQNGVNPDWEEKVIEYFKEKLENNAPKWVPSLNEVPLHYLKPNSFVKFRCMIQDM
FDPEFYMGVYETVNQNTKAHVLHFGKYRDVAECGPQQELDINSRNTTLERQTFYCVPPGESTWVKEAYVNAHQ
ARVSPSTSYTPSRHKRSYEDDDDDMDLQPNKQKQDHAGARQAGSVGGLQWCGEPKRLETEASTGQQLNSLNLSSPF
DLNFPLPGEKGPACLVKVYEDWDCFKVNDILELYGILSVDPVLSILNNDERDASALLDPMECTDTAEEQRVHSP
ASLVPRIHVILAQKLQHINPLLPACLNKEESKTCKFVSSFMSELSPVRAELLGFLTHALLGDSLAAEYLILHLIS
TVYTRRDVLPGLGFTVNLSGCPRNSTFTEHLYRIIQHLVPASFRLQMTIENMNLKFI PHKDYTANRLVSGLLQL
PSNTSLVIDETLLEQGQLDTPGVHNVLTALSNLITWQKVYDFSYHQMEFPCNINVFITSEGRSLLPADCQIHLQP
QLIPPNMEEYMNSLLSAVLPSVLNKFRIYLTLLRFLEYSISDEITKAVEDDFVEMRKNDPQSITADDLHQLLVVA
RCLSLSAGQTTLRERWLRAKQLESRLRRLQQQKCVNGNEL

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FIGURE 1162

TGTTCTTGAGCCCAGCTTCTTCTCGTCTCCACCCCAGCTTCCCGGCATTGGAAGAAGGGACCGTCCTCTTCCTT
GTCTTGGCCACCCAAATCCTGGTATCGAAAGGGTTGAACGGACCGGAAGTGTGCAGCAGCGACGGGTCCCCAGCT
AATCGACGCCGGAAGTAGCAATTACTAGACAAGCATTCCGCCGCCGGCTTCGCTATGGCGGCAATTCCCCAGAT
TCCTGGCAGCCACCCAACGTTTACTTGGAGACCAGCATGGGAATCATTGTGCTGGAGCTGTACTGGAAGCATGCT
CCAAAGACCTGTAAGAACTTTGCTGAGTTGGCTCGTCGAGGTTACTACAATGGCACAAAATTCACAGAATTATC
AAAGACTTCATGATCCAAGGAGGTGACCCAACAGGGACAGGTGAGGTGGTGCATCTATCTATGGCAAACAGTTT
GAAGATGAACTTCATCCAGACTTGAAATTCACGGGGGCTGGAATTCTCGCAATGGCCAATGCGGGGCCAGATACC
AATGGCAGCCAGTTCTTTGTGACCCTCGCCCCCACCAGTGCGTTGACGGCAAACACACCATTTTTGGCCGAGTG
TGTCAGGGCATAGGAATGGTGAATCGCGTGGGAATGGTAGAAAACAACTCCCAGGACCGCCCTGTGGACGACGTG
AAGATCATTAAGGCATACCCTTCTGGGTAGACTTGCTACCCTCTTGAGCAGCTCTTCTGAGATGGCCCCAGTGAA
CCAGCTTCTAGATGACATAGAATGACATGTAATGCTAAATTTTCAATTTGGCTTTGCAAGTCATGAAGCTTAGGAG
GCCTGGCATCTTGGGTGAGTTAGAGATGGAAGTACATTTTAATAGGATGCTTCTTTTCTTCCCCAGTGCCTA
GGTTGCCAGAGCATTTGCACAAATGCCCTGTTTATCAATAGGTGACTACTTACTACACATGAACCATAATGCTG
CTTCTTGTGCATGTCTGCTCTGATATACGTGCAACAATGTAGCAGCCACTGTCATTTCTCAGTGGTTTTGCCTAA
CCAAACTTCTTCCTAAGGAGATTTATATTCTGGCCTACACAGCAGTCCTTGATGGCTGACAGCCACAGAATTCCA
AACCAAGTAGTGTCTGTCTGACCCCTCTTAACCTCTGTGCACGCCCTATTTCACTCTTTTACATTTGTTCTTCTAGGG
AATGTATGCATCTCTATATATATTTTTCCCTCTCAAAACCAGAACATCAACAGTGCTGTTTCTGACACTTCAGACA
TCCCACGCAAAGCCACATTGAATTTTTGCCAAATGAAAAACACATCCAACAATCAAGTTTCTAAGAAGGTGTCAA
GTGGGGAATAATAATAATGTATAATAATCAAGAAATTAGTTTATTAAAAGGAAGCAGAAGCATTGACCATTTTTT
CCCAGAGAAGAGGAGAAATCTGTAGTGAGCAAAGGACAGACCATGAATCCTCCTTGAGAAGTAGTACTCTCAGAA
AGGAGAAGCGCCACTCAAGTTCTTTTAACCCAAGACTTTAGAGAAATTAGGTCCAAGATTTTTATATGTTTCAAGT
GTTTATGTATAAAAATAACTTTCTGGATTTTGTGGGGAGGAGCAGGAGAGGAAGGAAGTTAATACCTATGTAATA
CATAGAACTTCCACAATAAAATGCCATTGATGGTTGAAAAAAAAAAAAAAAAAAAAA

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FIGURE 1163

MAAIPDSWQPPNVYLETSMGIIIVLELYWKHAPKTCKNFAELARRGYNGTKFHRI IKDFMIQGGDPTGTGRGGA
SIYGKQFEDELHPDLKFTGAGILAMANAGPDTNGSQFFVTLAPTQWLDGKHTIFGRVCQGIGMVNRVGMVETNSQ
DRPVDDVKI IKAYPSG

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FIGURE 1164

AATAACCTGGAGCCGGCGGCGTAGGTTGGCTCTTTAGGGCTTCACCCCGAAGCTCCACCTTCGCTCCCGTCTTTC
TGGAACACCCGCTTTGATCTCGGCGGTGCGGGACAGGTACCTCCCGGCTGCTGCGGGTGCCCTGGATCCAGTCGG
CTGCACCAGGCGAGCGAGACCCTTCCCTGGTGGAGGCTCAGAGTTCCGGCAGGGTGCATCCGGCCTGTGTGTGGC
GCGAGGCAGGGAAGCCGGTACCCGGGTCTGGCCCCAGCGCTGACGTTTTCTCTCCCTTTCTTCTCTCTTCGCG
GTTGCGGCGTCGCAGACGCTAGTGTGAGCCCCCATGCAGATACGACCCCGAGCGGCCCCAAGGGGCGGGCGCT
GTGCAATTCATGATGACCAATAAACTGGACACGGCAATGTGGCTTTCTCGCTTGTTACAGTTTACTGCTCTGCT
CTGTTTGTCTGCCTCTTCTTGGGTTGCATGAAGCAGCAAGCTTTTACCAACGTGCTTTGCTGGCAAATGCTCTT
ACCAGTGCTCTGAGGCTGCATCAAAGATTACCACACTTCCAGTTAAGCAGAGCATTCCCTGGCCCAGGCTTTGTTA
GAGGACAGCTGCCACTACCTGTTGTATTCACTCATCTTTGTAAATTCCTATCCAGTTACAATGAGTATCTTCCCA
GTCTTGTTATTCTCTTTGCTTCATGCTGCCACATATACGAAAAAGGTCCTTGACGCAAGGGGCTCAAATAGTTTA
CCTCTGCTGAGATCTGTCTTGGACAAATTAAGTGCTAATCAACAAAATATTCTGAAATTCATTGCTTGCAATGAA
ATATTCCCTGATGCCCTGCGACAGTTTTTATGCTTTTTAGTGGTCAAGGAAGTTTGCTCCAACCTTTTATATACTAT
AGATTTCTTACCCTTCGATATTTCGTCTCGAAGAAACCCATATTGTCCGGACCTTATTTAATGAACTGAGGATTGTT
GTTGAACACATAATAATGAAACCTGCTTGCCCACTGTTTGTGAGAAGACTTTGTCTCCAGAGCATTGCCTTTATA
AGCAGATTGGCACCAACAGTTCCATTAGTTTAACATCTAGTTAAGCTACAAATATAGTATAAGCATTATTAGCAGC
TGGTACTTCTGCTAGGGGTTGTAAATTCAGGTGTTACACTGACCTCAATCCAATTTACATAATTTACATAAATG
CATCTCGGTGGAAAAATAATCATTTTTCTTGGCATGTTAAATCAAGCTTAAAAAGTTTTGAGAAAAATTTACTGTG
CTGTGTTGCTAATGGTTAAAGAAGTCTGTATCTAGTGATAAATATACCAGTTTTTTTTAAAAAGATGCTGTTGTGC
CTATATCATGAAGTACATTAATTTCTCATGTAAAAAAAATAGCTCTAAAATTTGTTTCAACCTAATTGGTAACCT
GAGTTTATATCTGGCATGAATTCATTATGGTGATACACATATGTGAATTCAGTACATTTTGAGACAGTATTCTAC
CATTGAGTAATTTTGGTTAATGATTTTAAACACTTCTCAGTGTATTTAATTTCAAATTGTTTTTTAATTGGTTTT
ATGCTGCTTTGTTAGGACAGATGTGTTTTGAATGTACCATTATAAGAAGAATTCTATGTATCTTAAACTATGATC
TTCTAAAAATTTATTTCCGTAAGTACTTCTGTGGCCTTGAGTATTTTTTAAAAGGCTCAACTGTAAGCCTCTTAG
CCAGTTGGATAAATATTTGGGGTCACCTAGCCATTGAAAGCAGAAAGCAGTAGTGACACAGCTTTCCCTTCAAAG
AGCCATTGAGAAACATTTCTCAAACAGGAAATCCTTCTTTTACTAATGTGGACATATAGATTATTCGTATTATAG
TTTGTAGAACTACCTAGTTCAGAATCTTGACTGCCAGTTTTCTTGGTTTCTTAGGCTTGAATTTTCATAGACAAT
TGCAACAGTTTAGATGCCTTTTGAAAGGAATGTAATGAAGATTGAGCATCTGACTATATGTGTGTCTATCCTGAA
ATAATAATGGAGAGTATACTGTAGATTACATGTTTACCCATCAAATCTGACTTAAAAGGTTAAATGGAAGGTTTT
ATAGGTAAGGTAATTGATTGGGAATGGGGTAGGGGGAGGAGTTGTGGGGGAATAATGTGCATTTAGTCTCAACG
CATAGATAAATTTAGGGGAATTGGATGCATTATTCAACTTTGATTGGGTTGTAAAATGTGTTAAATCCTGTTCA
TTGAACTCCCATCAACTCTTATGAAATTCATGCTGATCTTCATTACCGTTGCATGATTGGAAATGTTTAAACAT
TGTACAGTTTTAGTATAGAGAAATGTAATGGTTTTTGTGACCAGTTTCTGTCTGCATGTAATTTGGATTTCTCAA
ATACATTCATTAGTAATTTATCAGTAACATTAGTTTTATTTTTGTTTCATCTCCTTAICTATAAAAAGGGGATATT
CTTAGGATAAATACATGAAAAATTATACCTGATAGCTTAACATAATCAGCTATTTTTGTATTTTTGTAATATTT
GTCCACTAAGCTGGAGAAGCAGCCTCATAACAGTTGATTTTGTGTATGTGGCTAGTCTTATTGTCACTATGTAAGT
AATCCAATGGTTTTAGAACTAACTTTCTAGAGCAATAAAATGACTATAATGTTAAGT

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FIGURE 1165

MADTTSPGPGAGAVQFMMTNKLDTAMWLSRLFTVYCSALFVLPLLGLHEAASFYQRALLANALTSALRLHQRLP
HFQLSRAFLAQALLED SCHYLLYSLIFVNSYPVTMSIFPVLLFSLHAATYTKKVL DARGSNSLPLLRSVLDKLS
ANQQNILKFIACNEIFLMPATVFMLFSGQGSL LQPFIIYRFLTRYSSRRNPYCRTLFNELRI VVEHIIMKPACP
LFVRRCLQSI AFISRLAPTVP

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FIGURE 1166

GCACGAGCCCCGGGCTGCCGGCGCGGGCGCCGCGGCACGTCCACAGGCTGGGTCCGCGAGGTGGCGATCGCTGAGA
GGCAGGAGGGCCGAGGCGGGCCTGGGAGGCGGCCGAGGTGGGGCGCCGCTGGGGCCGGCCCGCACGGGCTTCA
TCTGAGGGCGCACGGCCCCGCGACCGAGCGTGC GGACTGGCCTCCCAAGCGTGGGGCGACAAGCTGCCGGAGCTGC
AATGGGCGCGGGCTGGGGATTCTTGT TTGGCCTCCTGGGCGCCGTGTGGCTGCTCAGCTCGGGCCACGGAGAGGA
GCAGCCCCCGGAGACAGCGGCACAGAGGTGCTTCTGCCAGGTTAGTGGTTACTTGGATGATTGTACCTGTGATGT
TGAAACCATTGATAGATTTAATAACTACAGGCTTTTCCCAAGACTACAAAACTTCTTGAAAGTGACTACTTTAG
GTATTACAAGGTAAACCTGAAGAGGCCGTGTCTTTCTGGAATGACATCAGCCAGTGTGGAAGAAGGGACTGTGC
TGTCAAACCATGTCAATCTGATGAAGTTCCTGATGGAATTAAATCTGCGAGCTACAAGTATTCTGAAGAAGCCAA
TAATCTCATTGAAGAATGTGAACAAGCTGAACGACTTGGAGCAGTGGATGAATCTCTGAGTGAGGAAACACAGAA
GGCTGTTCTTCAGTGGACCAAGCATGATGATTCTTCAGATAACTTCTGTGAAGCTGATGACATTCACTCCCCTGA
AGCTGAATATGTAGATTTGCTTCTTAATCCTGAGCGCTACACTGGTTACAAGGGACCAGATGCTTGGAAAATATG
GAATGTCTATCTACGAAGAAAACCTGTTTTAAGCCACAGACAATTAAGAGACCTTTAAATCCTTTGGCTTCTGGTCA
AGGGACAAGTGAAGAGAACACTTTTTACAGTTGGCTAGAAGGTCTCTGTGTAGAAAAAGAGCATTCTACAGACT
TATATCTGGCCTACATGCAAGCATTAAATGTGCATTTGAGTGCAAGATATCTTTTACAAGAGACCTGGTTAGAAAA
GAAATGGGGACACAACATTACAGAATTTCAACAGCGATTTGATGGAATTTTACTGAAGGAGAAGGTCCAAGAAG
GCTTAAGAACTTGTATTTTCTCTACTTAATAGAACTAAGGGCTTTATCCAAAGTGTACCATTCTTCGAGCGCCC
AGATTTTCAACTCTTTACTGGAAATAAAATTCAGGATGAGGAAAACAAAATGTTACTTCTGGAAATACTTCATGA
AATCAAGTCATTTTCTTTGCATTTTGATGAGAATTCATTTTTTGTCTGGGGATAAAAAAGAAGCACACAACTAAA
GGAGGACTTTTCGACTGCATTTTAGAAATATTTCAAGAATTATGGATTGTGTTGGTTGTTTTAAATGTCGTCTGTG
GGGAAAGCTTCAGACTCAGGGTTTGGGCCTGCTCTGAAGATCTTATTTTCTGAGAAATTGATAGCAAATATGCC
AGAAAGTGGACCTAGTTATGAATTCCATCTAACCAGACAAGAAATAGTATCATTATTCAACGCATTTGGAAGAAT
TTCTACAAGTGTGAAAGAATTAGAAAACCTTCAGGAACCTGTTACAGAATATTCAT**TAA**AGAAAACAAGCTGATAT
GTGCCTGTTTCTGGACAATGGAGGCGAAAGAGTGAATTTTATTCAAAGGCATAATAGCAATGACAGTCTTAAGC
CAAACATTTTATATAAAGTTGCTTTTGTAAAGGAGAATTATATTGTTTTAAGTAAACACATTTTTAAAAATTGTG
TTAAGTCTATGTATAATACTACTGTGAGTAAAGTAATACTTTAATAATGTGGTACAAATTTTAAAGTTTAATAT
TGAATAAAAGGAGGATTATCAAATTCATATATGATAAAAGTGAATGTTCTAAGTCTCTCAAAGTACGTTTTATG
TAATAATATGTAATATAAAATAAACTATGGTAAATGTGACAAGCATTAAATAGGAAAATGCTAAGGAGGCCTCAT
AAATGACCCATAATTACCAACGTAGAATTTTTTTCAGTACATTTAGGGTTGCTGGATTTAGCAAATAAAAAATAAGA
TTGCCCAGTTAGATTTGAATTTTCAAGATAAAACAATTAGTTTTTTAATATTTTACATGGAATATTTGGAAAATACTT
ATACTAAAAAATTATTTGTTTGAAATTCACATTTAACTGGGAGTCTTGATTTTATCTGGCAATCCTAAATACA
TTGGTATGAAACAAATCACTTTTAGAAGTATATTGCTATTTTGATTGGGTGTTTTTGTGTGTAGAAACGTACAA
TAACAACTCAAAGGCACAGGAGATTTCTAAACATTGTGAAAAGTTGAATAGATTATATATTTATTCTCATAATAC
TTTCACTAATACTAAATAAAATTTGGGGAACACTTTTTATTTTTATATAATTTCCAATTTACAGAAAAGTTTCAA
AAATAGTACAAAGAGCTCTCTTACCCAGATTCATAATTGTTTCATACGTGCTTTATCTTTTCATGCTTTCTCTGTA
CACACACACACACACAAATTTTCTCAATCATTGAAAGTCAGTTATAGGCATCATGCCCCTTAAACCCTAA
ATACTTCAGTGTGTAATACTGAATAATTACTAAAAATGATTTTCTCAGAAAAAAAACCTCCACAATTCTGGAAC
TATAATACTGTAAGCCTTAGAATAAATAATACTTTCAAGTTCCAATCTAAAGTTCTTTTTGAGTTTTGTTGCCCG
TTTTATGCTTGATGTGTATAGTAATAGGGTAGGCTATTTATTTTATTAATAATTTTTTTTAGAGACAAGTTTTGC
TGTGTTGCCCAAGCTGGAACCTGAACGACTGGGCTGAAGTGATCTTCCACCTCAGCCTCCCAAGTAGCTGGGAA
TACAGGTGTCTGCCACCATAACCCAGTTTCATTTTTGTTTTTTATACCCGAAGTTCATTTCTTTGTCTCCCTAAA
ACTGAAGTGAATTTTGGGAGTTTTTCATTAGTGAAGCTCTTCATTTATAAAGCTATTTGAAGGGGTTTAGGAA
TTTATATCACATGGTAATTGTAGAGAAAAAGAAGCTATATACCTCAAAATCGTGCCCTCTTACATATGTCTTAT
CAGGTATAACATGTTGAAATGTCACATTAGTAGTAAAGTGGGGTTATTTATATAGTGGTTAAGAAATGTCAGTT
TACACTGCTGTATACTTCTTCTTCTGTGTCCCTAAGGCCTGGTACAGTGCCAAGCACATACTTGGTATCCAATAA
ATATTTGTTGGATGAAAAAAAAAAAAAAAAAAAAA

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FIGURE 1167

MGRGWGFLFGLLGAVWLLSSGHGEEQPPETAQAQRCFCQVSGYLDDCTCDVETIDRFNNYRLFPRLOKLLSDYFR
YYKVNLRPCPFWNDISQCGRDCAVKPCQSDEVPDGIKSASYKYSEEANNLIEECEQAERLGAVDESLSEETQK
AVLQWTKHDDSSDNFCEADDIQSPEAEYVDLLLNPERYTGYKGPDAWKIWNVIYEENCFKPQTIKRPLNPLASQ
GTSEENTFYSWLEGLCVEKRAFYRLISGLHASINVHLSARYLLQETWLEKKWGHNITEFQQRFDGILTEGEGPRR
LKNLYFLYLIELRALSKVLPFFERPDFQLFTGNKIQDEENKMLLLEILHEIKSFPLHFDENSFFAGDKKEAHKLK
EDFRLHFRNISRIMDCVGCFCRLWGKLQTQGLGTALKILFSEKLIANMPESGPSYEFHLTRQEIVSLFNAFGRI
STSVKELENFRNLLQNIH

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FIGURE 1168A

CGATAACGATTTGTGTTGTGAGAGGCGCAAGCTGCGATTTCTGCTGAACTTGGAGGCATTTCTACGACTTTTCTC
TCAGCTGAGGCTTTTCCCTCCGACCCTGATGCTCTTCAATTCGGTGCTCCGCCAGCCCCAGCTTGGCGTCTTGAGA
AATGGATGGTCTTCACAATACCCTCTTCAATCCCTTCTGACTGGTTATCAGTGCAGTGGAATGATGAACACACT
TCTTATGGAGAAACAGGAGTCCCAGTTCCCTCTTTTGGATGTACCTTCTCTTCTGCTCCCAATATGGAACATGTA
CTAGCAGTTGCCAATGAAGAAGGCTTTGTTTCGATTGTATAACACAGAATCACAAAGTTTCAGAAAGAAGTGCTTC
AAAGAATGGATGGCTCACTGGAATGCCGTCTTTGACCTGGCCTGGGTTCTGGTGAACTTAACTTGTTACAGCA
GCAGGTGATCAAACAGCCAAATTTTGGGACGTAAAAGCTGGTGAGCTGATTGGAACATGCAAAGGTCATCAATGC
AGCCTCAAGTCAGTTGCCTTTTCTAAGTTTGAGAAAGCTGTATTCTGTACGGGTGGAAGAGATGGCAACATTATG
GTCTGGGATACCAGGTGCAACAAAAAGATGGGTTTTATAGGCAAGTGAATCAAATCAGTGGAGCTCACAATACC
TCAGACAAGCAAACCCCTTCAAACCCCAAGAAGAAACAGAAATCAAAGGACTTGCTCCTTCTGTGGATTTCCAG
CAAAGTGTTACTGTGGTCTCTTTCAAGACGAGAATACCTTAGTCTCAGCAGGAGCTGTGGATGGGATAATCAAA
GTATGGGATTTACGTAAGAATTATACTGCTTATCGACAAGAACCCATAGCATCCAAGTCTTTCTGTACCCAGGT
AGCAGCACTCGAAAACCTTGATATTCAAGTCTGATTTTGGATTCCACTGGCTCTACTTTATTTGCTAATTGCACA
GACGATAACATCTACATGTTTAAATATGACTGGGTTGAAGACTTCTCCAGTGGCTATTTTCAATGGACACCAGAAC
TCTACCTTTTATGTAAATCCAGCCTTAGTCCAGATGACCAGTTTTTAGTCAGTGGCTCAAGTGATGAAGCTGCC
TACATATGGAAGGTCTCCACACCCTGGCAACCTCTACTGTGCTCCTGGGTCAATTCTCAAGAGGTCACGTCTGTG
TGCTGGTGTCCATCTGACTTCACAAAGATTGCTACCTGTTCTGATGACAATACACTAAAAATCTGGCGCTTGAAT
AGAGGCTTAGAGGAGAAACCAGGAGGTGATAAACTTCCACGGTGGGTTGGGCCTCTCAGAAGAAAAAAGAGTCA
AGACCTGGCCTAGTAACAGTAACGAGTAGCCAGAGTACTCTGCCAAAGCCCCCAGGGTAAAGTGCAATCCATCC
AATTCTTCCCCGTCATCCGAGCTTGTGCCCCAAGCTGTGCTGGAGACCTCCCTCTTCTTCAAATACTCCTACG
TTCTCTATTAACCTCTCCTGCCAAGGCCCGGTCTCCCATCAACAGAAGAGGCTCTGTCTCCTCCGTCTCTCCC
AAGCCACCTTCATCTTTCAAGATGTCGATTAGAACTGGGTGACCCGAACACCTTCTCATCACCACCCATCACT
CCACCTGCTTCGGAGACCAAGATCATGTCTCCGAGAAAAAGCCCTTATTCTGTGAGCCAGAAGTCATCCCAAGCA
GAGGCTTGCTCTGAGTCTAGAAATAGAGTAAAGAGGAGGCTAGACTCAAGCTGTCTGGAGAGTGTGAAACAAAAG
TGTGTGAAGAGTTGTAACGTGTGTGACTGAGCTTGATGGCCAAGTTGAAAATCTTCATTTGGATCTGTGCTGCCTT
GCTGGTAACCAGGAAGACCTTAGTAAGGACTCTCTAGGTCTACCAAATCAAGCAAAATTGAAGGAGCTGGTACC
AGTATCTCAGAGCCTCCGTCTCCTATCAGTCCGTATGCTTCAGAAAGCTGTGGAACGCTACCTCTTCTTTGAGA
CCTTGTTGGAGAAGGCTCTGAAATGGTAGGCAAGAGAATAGTTCCCCAGAGAATAAAAACTGGTTGTTGGCCATG
GCAGCCAAACGGAAGGCTGAGAATCCATCTCCACGAAGTCCGTATCCAGACACCCAATTCCAGGAGACAGAGC
GGAAAGACATTGCCAAGCCCGGTACCATCACGCCAGCTCCATGAGGAAAATCTGCACATACTCCATAGAAAG
TCCCAGGAGGACTTCTGTGGTCTGAACACTCAACAGAATTATAGATTCTAATCTGAGTGAGTTACTGAGCTTTG
GTCCACTAAAACAAGCTGAGCTTTGGTCCACTAAAACAAGATGAAAAATACAAGAGTGACTCTATAACTCTGGTC
TTTAAGAAAGCTGCCTTTTCAATTTTAGACAAAATCTTTCAACGCTGAAATGTACCTAATCTGGTTCTACTACC
ATAATGTATATGCAGCTTCCCAGGATGAATGCTGTGTTAAATTTTATAAAGTAAATTTGTCACTCTAGCATTT
TGAATGAATAGTCTTCATTTTTAAATTTATTCATCTTCTCTATAAATGACATCCCAGTTTATGGAGGCAAAAA
ACAAGTTTCTTGTTATCCTGAACTTTCTATGCTCAGTGGAAGTATCTGCCAGCCACAGCATGAGGCCTGTGAA
GGCTGACTGAGAAATCCTCTGCTGAAGACCCCTGGTTCTGTTCTGCCCTCCAACATGTATAATTTTATTTGAAATA
CATAATCTTTTCACTATGCTTTTGTGGGGTTTTTTTTTAAAGTATGTGTAAAAATGTGATGCTCAGATAAGTACATT
TATATCAGTTCAGTGTTAAATGCAGTCTCTTGAGTTAAAGTCATCTTTATTTTAAATGCAGTGATAAATGTCAA
CTCTTCGGAGAACTAGGAGAACAAACAGAAAGCTGTGTTTGTCTTTTTTCTCTCAAATATATCTCCCGTATG
AGATTTTCAGGTCCCCATGTTTTACCAAGCAATCTGCTATGTCAGCCAACCCCAACATCACTTTCTACAGGAGGTT
ATGATTTTTGCCATTTACTAGAGGAAGATGTTTTATGAAATCAATTTGGGGTTTGAATTCAGGTGCAGTCATCAG
TTCTTTAGGGGCTGCAATGTTTTAAAAAATAAGTCATCAGATTTTAAAGAAAAAGTGATGATTTCTTTATTGAT
ATTTTTGTAACAGAATATAGCTCTTAACTGAAAATCCAGAACAGAAACATAAATCTTGAGTTTCTTTTCATGTA
CATAAAAAGCAATAGCCTTTTAGTATAGATAGCCCTGAGCCAAAAAGTAATAGAATTTTCTCTAGATATTTAATA
CAGAGAGTGTATAGACTGACTCTAAGTTAATAATGTGCAAAATATCTTAAACATCCCTCCCTTATTCAACAATT
ATGTATCAGTGATCTTGAACATTGTTTTATATTTTACCTTTGTAACCTCATGGAAAGAGGCTTTACATACTT
TCTATGTACTATTTACTTAGAAGGGAGCCCCCTCCAGTCATGAAACTTCATTTGTTTTATCCATATCCCTGAGG

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FIGURE 1168B

ACTGTGTAGACTTTATGTCAGTTCTGTGTAGACTTTATGTCAGTTTTTGTCAATTATTTGAAAATCTATTCTGACA
ACTTTTAAATTCCTTTGATCTTATAAGTTAAAGCTGTAACAACCTGAAATTGCATGGATCAAGTAAGCATAGTTTT
ATCCAGGGAGAAAAATAAAAGGAAGCCATAGAATTGCTCTGGTCAAAACCAAGCACACCATAGCCTTAACTGAAT
ATTTAGGAAATCTGCCTAATCTGCTTATATTTGGTGTTTGTTTTTGACTGTTGGGCTTTGGGAAGATGTTATTT
ATGACCAATATCTGCCAGTAACGCTGTTTATCTCACTTGCTTTGAAAGCCAATGGGGGAAAAAATCCATGAAAA
AAAAAAGATTGATAAAGTAGATGATTTTGTGTGATCCCTACCCATCTCCTGGCAGCCCTACTGAGTGAAATTGG
GATACATTTGGCTGTCAGAAATTATACCGAGTCTACTGGGTATAACATGTCTCACTTGGAAGCTAGTACTTTTA
AATGGGTGCCAAAGGTCAACTGTAATGAGATAATTATCCCTGCCTGTGTCCATGTCAGACTTTGAGCTGATCCTG
AATAATAAAGCCTTTTACCTT

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FIGURE 1169

MLFNSVLRQPQLGVLRNGWSSQYPLQSLLTGYQCSGNDEHTSYGETGVVPVPPFGCTFSSAPNMEHVLAVANEEGF
VRLYNTEQSFRKKCFKEWMAHWNVAFDLAWVPGELKLVTAAAGDQTAKFWDVKAGELIGTCKGHQCSLKSVAFSK
FEKAVFCTGGRDGNIMVWDTRCNKKDGFYRQVNQISGAHNTSDKQTPSKPKKKQNSKGLAPSVDFQQSVTVVLFQ
DENTLVSAGAVDGIKQVWDLRKNYTAYRQEP IASKSFLYPGSSSTRKLGYSLLILDSTGSTLFANCTDDNIYMFNM
TGLKTSPVAIFNGHQNSTFYVKSSLSRDDQFLVSGSSDEAAYIWKVSTPWQPPTVLLGHSQEVTVCWCPSDFTK
IATCSDNTLKIWRNLNRGLEEKPGDKLSTVGWASQKKKESRPGLVTVTSSQSTPAKAPRVKCNPSNSSPSSAAC
APSCAGDLPLPSNTPTFSIKTSPAKARSPINRRGSVSSVSPKPPSSFKMSIRNWVTRTPSSSPPI TPPASETKIM
SPRKALIPVSQKSSQAEACSESRNRVKRRLDSSCLESVKQKCVKSCNCVTELDGQVENLHLDLCLAGNQEDLSK
DSLGP TKSSKIEGAGTSISEPPSPISPYASESCGTLPLPLRPCGEGSEMVGKENS SPENKNWLLAMAAKRKAENP
SPRSPSSQTPNSRRQSGKTLPSVITITSSMRKICTYFHRKSQEDFCGPEHSTEL

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FIGURE 1170

[illegible]

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FIGURE 1171

GCGCTCCCGGAACGCGCGCACCGCAGACGGCGCGGATCGCAGGGAGCCGGTCCGCCGCCGGAACGGGAGCCTGGG
TGTGCGTGTGGAGTCCGGACTCGTGGGAGACGATCGCGATGAACACGGTGCTGTCGCGGGCGAACTCACTGTTCCG
CCTTCTCGCTGAGCGTGATGGCGGCGCTCACCTTCGGCTGCTTCATCACCACCGCCTTCAAAGACAGGAGCGTCC
CGGTGCGGCTGCACGTCTCGCGGATCATGCTAAAAATGTAGAAGATTTCCTGACCTAGAGAAAGAAGTGATC
TGGGATTTATCACATTTGATATAACTGCTGATCTAGAGAATATATTTGATTGGAATGTTAAGCAGTTGTTTCTTT
ATTTATCAGCAGAATATTCAACAAAAAATAATGCTCTGAACCAAGTTGTCCTATGGGACAAGATTGTTTTGAGAG
GTGATAATCCGAAGCTGCTGCTGAAAGATATGAAAACAAAATATTTTTCTTTGACGATGGAAATGGTCTCAAGG
GAAACAGGAATGTCACTTTGACCCTGTCTTGGAACGTCGTACCAAATGCTGGAATTCTACCTCTTGTGACAGGAT
CAGGACACGTATCTGTCCCATTTCAGATACATATGAAATAACGAAGAGTTATTAAATTATTCTGAATTTGAAAC
AACATATTTTTTATACTTAATGAATTGTATCTCATTAACTCTTCCCTTACATCTTCATGTATTGTTGGTTTGT
TTTGGTTTTGGTTTTTTTTTTTTTTTTTTTTTTGGTATAAGAACTAACATCAAAGGCCGTGTTAAAGGGAAAGGTTA
ATGGGCTACTTAATATTATGAACAAAACAAAAAACAAGGCTGCCACAGTGGAATATTATCTTACAAGAATAAGA
ACTACATAAAACAGATTTGTAAAAAATACATATTTGAAGTATTCCTGTATTTCCATTATTCTTTATGGAATATA
AAGTAAGCATGAAAGGTAGTTAAACTTTTCAGGTGCCTGTAGAGTCATAATACTGTATTTTATGCCTTGCATT
ACGCAAATTCACATTGGATGTGATTTAAAAGTAGACATTCTCTTTTCTCTTTTAGGATATGTTTGATTACTGG
AAAATTAATATGGTTATTTGTTAGAAGTCTGGTTTATAAAAAAGCCAAAAGTGATGGAATTTATTCCATTTGTCT
TAGGAAGGCCATAATACTTGTTTTCTTACATGTGACTAGCAACTTTCTCCACTTAAAGACTAAATACCTCTTT
ATATGATGTAAATTATTCTAATTCATTTTAAATCTTTTAGGTCAGCAAATGTGTGCTTTCAGTGCTTTCTCTA
AAAACGTTCTTTATAGCTTTGTACTTTTTTTTTTAGCGTTGCCATTGAAAGTTAAATGTTTGCATGGTTTACC
CTCTGAGTTATGTTTCTTCTAGTGAGCATGCCTGCTGTCACTAAGTGAATTATTTACTACTTTTTGTAGGTCTAT
ATTTTAATAATTATTGGGATAATAATAAAAAAAAAAAAAAAAAAAAA

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FIGURE 1172

MNTVLSRANSLFAFSLSVMAALTFGCFITTAFKDRSVPVRLHVSRIMLKNVEDFTGPRERSDLGFITFDITADLE
NIFDWNVKQLFLYLSAEYSTKNNALNQVVLWDKIVLRGDNPKLLKDMKTKYFFDDGNGLGKGNRNVTLTLSWNV
VPNAGILPLVTGSGHVSVPFPDTYEITKSY

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FIGURE 1173

TTTGCTAAAGCCACCATAAAGGAAATAGTTGTGTGGCCCATGTTGAGGCCAGACATCTTTACTGGTTTAAGGGGA
CCCCCTAAAGGAATTTTGCTCTTTGGTCCTCCTGGGACTGGTAAAACTCTAATTGGCAAGTGCATTGCTAGTCAG
TCTGGGGCAACATTCTTTAGCATCTCTGCTTCATCCTTAACTTCTAAATGGGTAGGTGAGGGGGAGAAAATGGTC
CGTGCAATTGTTTGCTGTTGCAAGGTGTCAGCAACCAGCTGTGATATTTATTGACGAAATTGATTCTTTGTTATCT
CAACGGGGAGATGGTGAGCATGAATCTTCTAGAAGGATAAAAAACAGAATTTTTAGTTCAATTAGATGGAGCAACA
ACATCTTCTGAAGATCGTATCCTAGTGGTGGGAGCAACAAATCGGCCACAAGAAATTGATGAGGCTGCCCCGAGA
AGATTGGTGAAAAGGCTTTATATTCCCCTCCCAGAAGCTTCAGCCAGGAAACAGATAGTAATTAATCTAATGTCC
AAAGAGCAGTGTTCCTCAGTGAAGAAGAAATTGAACAGATTGTACAGCAGTCTGATGCGTTTTTCAGGAGCAGAC
ATGACACAGCTTTGACGGGAGGCTTCTCTTGGTCCTATTTCGCAGTTTACAACTGCTGACATTGCTACCATAACA
CCGGATCAAGTTCGACCCATAGCTTACATTGATTTTGAAAATGCTTTTAGAACTGTGCGACCTAGTGTCTCTCCA
AAAGATTTAGAGCTTTATGAAAACCTGGAACAAAACCTTTTGGTTGTGGAAAGTAAGTGGGATACCTGGAATCAAGG
CATCTCTGTAGTACAGTCTTCTTTATTTTTTAGCATAGAAAAGTTGGGGATGTGTTAATTGTATTTTTAAGAATAT
ATTCTAAGTTCTGTACTTCAAATAATAGCACAGATTTTACATCTGATTGACATAGTGTATGTTAATGTAAGTTTT
GCTTTCCAGTGATTACCTGATACGTAAGCCTATTTGAACAAAGTGAGAATGAACTTTTGTTTTCTAAGAAGTCTTT
ATCTTGAAGCTATATAACATGAAAAGTGAGCTCAAATTTTTTTTAGTTGAAGATTACATATAAAGTTGTGTCTGA
TTAATATTCATCTTTTATTGAAGAAAGTGCTTCTGATGGCCACATAATTCTTAATGTCAGCTAGTATAATGGTT
TACATTTGGACAAAGTATTGCTTAGTGTTATTTAAGTAGATTTAAGATCTCAAAGCTAAAGTGCCAATTTTTACT
TTCTTCAGCCAATTTGTTACCTCTTTTATGGTTTTAAATTTTTATCAGGACTAACATTTTCAGAAATAGCAAGGT
GTGATCTAGTATTAGATTCACAGAACTGAAAGGTAAATTAAGAATGTTGGTTATTTTCACGGGAGCGTGTGATAT
TTAACATTAAATTTTTATTGACACTACAGCCTGTAATACTGCTCTCTTTCAAAAACAAGTTTTTCAGATTTTTAT
AACAGACCCATTTTGTTTTATGAAACATGTTTATTACAGAAACATGAGAAAATAGAGATAAGTAAAAAGAATAAA
AGTCACTATTATCCTACCCTTTGCGGGACACACTATTAATATTTAAGCATAGATTCTTCAGATGTTTTGTTTT
ATACAGCAGTAGGATTGTGTAATGTATTCTCTTGTAGCCTATTCTTCAAAGCGTATCTTCACTTTCCATGTTA
ACATAAATGTCCTTTTATGATTGTCTAGGATTCCATGGATGGATGGAATATAATTGAGTCATCTGGTAGAGCGCA
TATAGGACAGGACGCTAGGTGTTTTATCTTTTGTATTGTAAAGGAACTATGTGGGATGCATTTGGTGATCTTT
TTAAAAATGTATAAATTTCTTGAGTAATTCCTGGATTAAAGAATATGCACTTCTT

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FIGURE 1174

MLRPDIFTGLRGPPKGILLFGPPGTGKTLIGKCIASQSGATFFSISASSLTSKWVGECEKMRALFAVARCQOPA
VIFIDEIDSLLSQRGDGEHESSRRIKTEFLVQLDGATTSSDRILVVGATNRPQEIDEAARRRLVKRLYIPLPEA
SARKQIVINLMSKEQCCLSEEEIEQIVQQSDAFSGADMTQLCREASLGPIRSLQTADIATITPDQVRPIAYIDFE
NAFRTVRPSVSPKDLELYENWNKTFGCGK

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FIGURE 1175

CACATATAATAATAGCAACTCCTGGTCGACTGATTGACCACTTGAAACCTTTCGTATTTTCCAAGTGCTGGCAAG
CGCTTCCTGCGCAGGCCGAGGCGACCTGGAGTTTGTGACGCTGTGATGGTCTAGAGGCTGGAGATTCAAGATCTG
GGTGCCATCATTCTGTTCTGTTGATGACCCTCTTCCAGGTTACATACAGCTTACATCTTGCATCCTCAAGCG
TTTTTCTTATAAGGCTAAAAATTCACAAAGCATATATCAATGAATCAGGAGGATCTAGATCCGGATAGTACTACA
GATGTGGGAGATGTTACAAATACTGAAGAAGAAGCTTATTAGAGAATGTGAAGAAATGTGGAAAGATATGGAAGAA
TGTCAGAATAAATTATCACTTATTGGAAGTGAAGCACTCACCGATTCAAATGCTCAGCTATCATTGTTAATTATG
CAAGTAAAAATGTTTAACCGCTGAAGTCAAGTCAATGGCAGAAAAAACACCTGAAACAATTCCCTTGACTGAAGAC
GTTCTCATAACATTAGGAAAAGAAGAGTTCCAAAAGCTGAGACAAGATCTTGAAATGGTACTGTCCACTAAGGAG
TCAAAGAATGAAAAGTTAAAGGAAGACTTAGAAAAGGGAACAACGGTGGTTGGATGAACAGCAACAGATAATGGAA
TCTCTTAATGTACTACACAGTGAATTGAAAAATAAGGTTGAAACATTTTCTGAATCAAGAATCTTTAATGAAGT
AAAACTAAAAATGCTTAATATAAAAGAATATAAGGAGAACTCTTGAGTACCTTGGGCGAGTTTCTAGAAGACCAT
TTTCCTCTGCCTGATAGAAGTGTTAAAAAGAAAAAGAAAAACATTCAAGAATCATCTGTAAACCTGATAACACTG
CATGAAATGTTAGAGATTCTTATAAATAGATTATTTGATGTTCCACATGATCCATATGTCAAAATTAGTGATTCC
TTTTGGCCACCTTATGTTGAGCTGCTGCTGCGTAATGGAATTGCCTTGAGACATCCAGAAGATCCAACCCGAATA
AGATTAGAAGCTTTCATCAGTAAAAGGATGTTTTCTTTTTTACACAGTAAAAATCTTATCATTCAAGGATAT
TGGAACACAGGACTATTTGGATAAAAAACATTATTTGCAAATTAATGCGCATAGTACTTTTATTGCAAAATGGC
ATGTGCTGCCATCTATTATTCATTTTTTAAATGGTCATTTCTTATTAGTGAGTGCTTTAGTGTTTTAACTATAT
GGATAAGAATGCAGGTAGATAATATTCTAGGCATAAAACATTTAATGTACCTTACCTCATGCAATATTCTTTGGA
TTCTTTGTTGATTTATGATATTGCTAATATAATATTTCTTAAATATATAACAATATCTTTTATGCATTTGAGT
TCCAGCTGGTGCTTCTTTATATTTAGAAATTATAATGGGAAGGTCATTTAATTTACAGATGGTTTTAAATTTGAG
GTAATATCTGAGGTGGCATAATTTAAAAATATTTAGCAAATTTGTTTCATATATACTGTCTTATTTCTAGATTG
TTTAAATTTGGAATATGAAAACTAATGGATAAAGCTAGCATAAAATTGATATTTTAGTTTGTATTATTAATATA
TCATGTTACCTTATATATTAATCTACTCTTGATTCTGCTAATTATTACCAACAAAATTGTATTATGACATTTTA
TTAATCCTCTGTGAATTTTCTGTAAATAAAATTATTTCTGAAATCTCTAAAAAAAAAAAAAAAAAAAAA

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FIGURE 1176

MNQEDLDPDSTTDVGDVNTTEEELIRECEEMWKDMEECQNKLSLIGTETLTDSNAQLSLLIMQVKCLTAELSQWQ
KKTPEIPLTEDVLITLGKEEFQKLQDLEMVLSTKESKNEKLKEDLEREQRWLDEQQQIMESLNVLHSELKNKV
ETFSESRIFNELKTKMLNIKEYKEKLLSTLGEFLEDHFPLPDRSVKKKKKNIQESSVNLITLHEMLEILINRLFD
VPHDPYVKISDSFWPPYVELLLRNGIALRHPEDPTRIRLEAFHQ

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FIGURE 1177

AGTCGCTGTTTGGGACGCTGGGTGTGCGGTGTTCTGTCTCCGCTCCCGTTTCGCTGTCACAGCCCGTTCCCTCCC
GGAGCCCGGGACAGGCTGGGCGCGCGCCCGTGTGAGTGAGCGGGACTCAGGGCAGAAGTGTCCCCTCACTGCGTT
TTTTTTTCCTTTTATCCAAAGAACGGGGCAGTTAGTACGCTTGCCCTTCCTGTGCGCCGGTTGGGAGCGGGGTGG
TGTGCGGAGTGGTTCGCCTTTTTTTCTTTAGAACTTGTGAGCCTTTTTTTTTTTTTTTTTTTCTTTCCTTTTTTTT
AGGCTCAGTGCTGTCCGGGCTGGTTTGCCCGGTCCCTGACTAACGGCTTTCTGCCCCTTCTCTCGCCACCCCTGC
CCAAGGTCGCCCCCTCTGCCTTCGCCCCCTGTCCCGGGAGGGTGGGAAGCTTTGACCCCGCCCTGCCACTCGCGTC
TCCGAGCCGTAGCCGCGCCTGTCCCAATATGAATAGGGTCAACGACCCACTTATTTTTATAAGAGATATTAAGC
CCGGACTGAAAACTTAAATGTCGTCTTTATTGTCTTGGAGATAGGACGCGTGACCAAAACCAAAGACGGCCATG
AAGTGAGATCGTGCAAAGTAGCAGATAAAACGGGCAGCATCACTATTTCCGTGTGGGATGAGATCGGAGGTCTTA
TACAGCCAGGGGATATTATTCCGTTGACCAGAGGGTATGCATCCATGTGGAAGGATGTCTGACACTTTATACTG
GAAGGGGTGGTGAACCTCAAAAAATTGGGGATCTAGGTGCGGTGCAGGCAGCCGAATGCGAGATTCCATACACT
ACTACCTTGTAATGATCTCCACCCTGACCTGGAGGAGCCATCCTCTCTAGGGGTGTAAAGATTTTGTATGGTTTA
TTCAGAAGTGCCAAATTTTCACTGAACCCAACCCAGATTATCGAGGACAGCAGAACAAAGGGGCACAGAGTGAACA
GAAGAATAATTCCATGAATAGTAATATGGGTACAGGTACATTTGGACCAGTGGGAAATGGTGTTCACACTGGCCC
TGAATCAAGGGAACACCAGTTTTTACATGCTGGCAGAAGCAATGGCCGGGGACTTATAAATCCACAACCTACAAGG
AACAGCTAGTAATCAAACAGTGATGACCACAATAAGTAATGGCAGGGACCCTCGGAGAGCCTTTAAAGATGACC
TATGCTAAATACTCATGTGTAGTTTTTATACTACATGCCCTACTTGAACACTTATTGCACTTTTATTTATTGTTA
ACTGTGAAAAGTACGTCCTTTATTGGGTTTCCTTTTATATTCTTGGTTTGTGAAGAAGATGGTTTGTTTTATA
GCAAACTGTTAAGCTGCTCGAGTCTCCTGTTGAAGAATGGGAACACTGAAAAGTAGGGGCATTTATTTTATAGAG
TAAAAAGATTATTGGATAGCCTTTAAAAAACCTGCACCCATTTTATGGGTGAGTTACTTAAGACATCAGCTTTAT
AGCCTCTATGAGTCTATCTTCTGTATAAGTTTTGTAAATTTTAACATAAGGCTTAATGGGAGATGTTCTTTTGTG
TTGTATTACAGATATTGCCAACTAAAGCAATAACCATCAAAAAACACAAGAACTTGTCAATGCTAGCAGTAATTTT
TGAGTGTTTGTGGCTCTCGGAATGATTGACTTCGTTTCACTGACTACTATTAAGATTTTCCAAGGACTGACTCATC
CCAAATTTTGTGTTGATTACCAAAAAAACAGATTTCCTTATCAGAATTTGGAATAGAATGTGATCTCTATTGCAAC
AAGTAATTTTAAAAGAAAGCTTACATTTATTTTAGAGTAGTGCTCCTAACATGTATTATCAACTTTGTGGATTACA
TTGGAGGAAAATTTAAAACCTGGGGCCTTGAATATTTATTTTTTGAACCTACCATGTTAAATACTGAAGTATAATT
TGGGGGAGTTATAAAGTTATGATAAACATTCATCTGATTATTTTAAACAATAGTTGTGGTAGATAAACATACTGG
AGGTGAGTAAAATTGAATTCATATAGTAACATGCAGTCTGAAGTCCTAGTTACTTAATAGGTACTCAGCCTGGAG
TGAAAATCCTGGGTACTGACTTTGAGAGGAGTGAGTGTGCATGTTGTCAAAGTTTCTGAACACAGTTTACATAGC
CTTATTAGCAAAAGTTTTAAGAAATGGCTCTATCAAAGAAGCAATTGCAGCTTTATTAGAAATATAAAAGTGGAA
ATTTATGTACATGTCATAAGTGGTACCCACTTCCCCTTTTTACTGTAGGGTGGATAACTCTTAGGATTTAACTCT
TTGAATATTATCTCTTGAATAAAGCATGTGTTAATGTTAACAAACCTACGTAATTTTGGCCCTTCAATGACTTA
CAGTGGAGAGCCAGTACATCTTAACCTACTGTTGTAGTGATGGTATCAACCTCATGGTTACTTAGCTCTGCATTTG
TTGCTTTGTTTTTTTTTCCACTTCAAATCACAAAATAAGTAGATTTTGTCTTGAAAACCTCATAGCATTGAAAT
ACAAAAAGTTGTGCCAGATTGTTTGCCCTAATTCAGTGTGTTTAACAAATATTTTCACTACACACTATGTATTAGG
CACTGTGTGGAAAGTGTTAAGGGGTAGACAAGATACCGAATAATCTCCACAAGTTTATTTGTGGTCTATAGTACT
TTTGTAACCTGGGGTTACAAAATTATAGAAATTTTTTCCCTTTGTTTCATATGCATATTCATGATTATAATTGGC
TTTGTGTTGTGATTAATGTTTTCTTAAGATTTTACATTATAGAATACCTCAAAGAAGTTGTCTAAGGACTGGGA
TAGAGAGTATGTTTCATAAAATTGTAGATGTTTGAATTTTTAAAAACCCTACAAATTAGTATATGATTGTTTAA
TATAAGTAAGATAGGAGCAACACTTTAAATTATTTGTGGGAGAATACAGCATTAAGGTGATTTTAAAAAGAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 1178

MNRVNDPLIFIRDIKPLKLNLVVFIVLEIGRVTKTKDGHEVRSCKVADKTGSITISVWDEIGGLIQPGDIIRLT
RGYASMWKGLTLYTGRGGELQKIGDLGAVQAAAMRDSIHYYPGNDLHPDLEEPSSLGV

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FIGURE 1179

CAGCCACCTCTTGCATCGTCACCTACAGGTATCTAAGCAATGGATCCAAGCCCTGGAGGTTGGTGAGAGCCATG
TATTACCCCTAGATGAAATTGGACAAGAGACC**ATGA**CCGTAACCCCTCCTCGATGCCAATCACTGTCTGGTTCTG
TCATGTTTCTCTTTGAAGGATATTTTGAACCATCCTCTACACAGGTGATTTTCGATACACACCATCCATGCTAA
AGGAGCCAGCCCTGACACTGGGGAACAGATCCATACTTTATACCTAGACAACACCAATTGCAATCCAGCCCTGG
TTCTTCCTTCCCGACAAGAAGCTGCCCACCAGATTGTCCAGCTCATTGAAAAACACCCACAACATAACATAAAGA
TTGGACTCTACAGCCTGGGAAAGGAATCACTGCTGGAGCAGCTGGCCCTGGAGTTTCAGACCTGGGTGGTATTGA
GTCCTCGGCGCCTGGAGTTGGTACAGCTACTGGGCCTGGCAGATGTGTTACAGTGGAGGAGAAGGCTGGCCGCA
TCCATGCAGTAGACCATATGGAGACCTGCCATTCCAACATGCTGCGTTGGAACCAGACCCACCCCTACGATTGCTA
TCCTTCCCACAAGCCGAAAAATCCACAGCTCCCACCCTGATATCCACGTCATCCCTTACTCTGACCATTCTCTT
ACTCCGAGCTTCGTGCCTTTGTGCGCAGCACTGAAGCCTTGCCAGGTGGTGCCCATTTGTAAGTCGGCGGCCCTGTG
GAGGCTTTCAGGACAGTCTGAGCCCCAGGATCTCCGTGCCCTGATTCCGGACTCTGTACAGCAATACATGAGTT
CTTCTCTAGAAAACCAAGCCTTCTCTGGCTGTTAGAAAGGAGGCTAAAGAGGCCGAGAACCCAAAGGTGTTGTGT
TTGAATCCCCTGAGGAAAGTGCTGATCAATCTCAAGCTGACAGAGACTCAAAGAAGGCCAAGAAAGAGAAACTTT
CTCCCTGGCCTGCGGACCTTGAAAGCAGCCTTCCCACCATCCTTTGCGGATCAAGAAGCAGTTGTTCCCAGATC
TCTATAGCAAAGAATGGAACAAGGCAGTGCCCTTCTGTGAGTCTCAAAAGAGGGTGACTATGTTGACGGCCCCAC
TGGGATTTTCAGTGCACCTTAAGGTCTACAGATGAGGAGTTTATTTCTCAAAAACCAGGGAGGAAATTGGTTTAG
GGTCCCCCTTGGTACCCATGGGAGATGATGATGGAGGTCCAGAAGCCACAGGGAATCAGAGTGCCTGGATGGGCC
ATGGTTCTCCCCTGTCCACAGCAGCAAGGGCACCCCTCTTCTAGCTACTGAATTCAGGGGTCTAGCACTCAAAT
ATCTTCTGACTCCAGTGAACCTTTTTCCAGGCAGGGTATTCTTCCAGGAGATTTGACCAGCAAGTGGAATAATACC
ATAAACCCCTGCT**GA**AGACAGGAGAGTACAGAATGACAACATTGAGCCCACTGCAGTTTTGAAGATAGTAACTG
ATGGCTGGTGGGAAAGAGTTTGTTTTTGGGGCTACTTTTCTATCTTTACAAGACTCTTATGGGGCCACCGTGGA
GCAGCACTTCCCAAACTTGTTCACTGGGGTCTCGTGCTATGGAATCCTTCTTTTTATACTAAGTTTAAAGAA
ATACTTTTTTTATAAAATCTTTGGAGTATGCGTGAGCAAATTAAGAGTTCTTTGAAGTCTACAGTAACTTAATC
TGTTTAACCTTGTTTAAACCAGTATTTCTCAAACCTTTTGTGAACATGCAATCATCTTATGTGGGTACAGAAAAG
GTAAAGAGTCTGAATCAAAAAGGACCAGGTTATTGCTGTTGCTGTTTTGTGGTGTGATGAGCCATTCTCCATGTC
CCCTTCTCCCTCTTCTCAGATCAAAATCCCTAGGGAGTTCTATTTTTAAATATGAATATGGCGCTGCATGCT
TCAATCCTGAACGTCACCTGACTTGCTGTGACCATCCAAATAATTTTCTGTCTCTGCCTCTGGGAGGGAACAGGA
AGCGATGAAGAGGTCTTGGAACAGTAGTGAAAATTCTACCTCTATGTCCTTCATGAGGATGTGCAGTATCCCAGT
ATCACTGGGATCCATGTGGAACAGAGCCAGCTGGGGGTTGGGCAGCTCTCTCCAAGGCAGTACCTAGAGCCCAG
CTGAACAACAAGGCTTTGGGTGTGAAGGGACTCCCCAGCCTGGAGACCCTATTTGGCTGAAACAGTTACAAAATA
TCAAATGTGTTGTGAGATATTCTCCAATTGTTACATAGCTGGGATATTTGTTGCTCCCCTCACCCCTTGGATT
ATGTAGGGAGCCAGTGCACACAGCCTGTTTGTTTTAGTATCCAAGGAAGAGACCAAGGAGCCAGCTGGCGGGAAG
GGGTGGGGTGTGCAGTCTGCCCTGTCTTCTGCTCATAACCTGACAAAATGCCAACTAGTAAGCAGGATAGCT
GATACCACGGCTATGAGGGAGTAGGCTCCGAGAGGGCACAGACTTGTGGAGCTGGGCGTCTGGATCAAACTGCT
TTGGGATGGAACCTCGAGCCCTAGCAGTGAAGAAGATTCCATTTCTTGTCCAGGGGATTTAAAGAGTTTCTGCT
TTTGAGAGAGAAATAGAGAGTTTAGAAAGCAATTGCTCTTGGGAAAGCTATACACAGCTCTGTTTTGTCAATGAC
CTTTGTTGTAAGTCTCCCAACGTCTATTAGGAGCCACAGCAGGTGAGGCATTTGGTGCAGCAGGAAACATGGGG
ACTGCCTAGGCTCGAATCTGTGGCACCCCTGAGCAATTACTTAAATTGTGGAGCCTAGTTTCTCATCTGTAAGATG
GACTTGAGATTCTACCTCTCATGATTACTATGGAGATTGAATAATTGGTAAATTTCTCTAGCTCAGTGACTGC
CACAGGATGGGTCTTTCAGATTTTGGTTCTTTAGCTTCTGGTTCTTGAAAGAAATTGATCTGTATATAACATA
AGAAACTTTGAAAGTC

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FIGURE 1180

MTVTLLDANHCPGSMFLFEGYFGTILYTGDFRYTPSMLKEPALTLGKQIHTLYLDNTNCNPALVLP SRQEAHQ
IVQLIRKHPQHNIKIGLYSLGKESLLEQLALEFQTWVVLSPRRLELVQLLGLADVFTVEEKAGRIHAVDHMETCH
SNMLRWNQTHPTIAILPTSRKIHSSHPDIHVIPYSDHSSYSELRAFVAALKPCQVVP IVSRRPCGGFQDSLSPRI
SVPLIPDSVQQYMSSSSRKPSLLWLLERRLRKRPRTQGVVFESPEESADQSQADRDSKKAKKEKLSPPADLEKQP
SHHPLRIKKQLFPDLYSKEWNKAVPFCESQKRVTMLTAPLGFSVHLRSTDEEFISQKTREEIGLGSPLVPMGDDD
GGPEATGNQSAWMGHGSPLSHSSKGTPLLATEFRGLALKYLLTPVNFFQAGYSSRRFDQQVEKYHKPC

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FIGURE 1181A

CCGGTTCCCGCGGTTCGCAGCTCCAGCCGCCTCCTCCGCGCAGCCGCCCTCAGCTGCTCGCTCTGTGGGTTCGGT
CCTCTCCGGCACTTGGGCTCCAGTCGCGCCCTCCAAGCCCTTCAGGCCGCCCAAGTGTCTCTCTCTCTCCGGC
CAGACCCAGCCCCGCGAAGATGTTGGACCGCGAGCAACTGGTGAGAAAGCCCGGTGGCCGAGCAGGCGGAGCG
CTACGACGACATGGCCGCGGCCATGAAGAACGTGACAGAGCTGAATGAGCCACTGTGCAATGAGGAACGAAACCT
TCTGTCTGTGGCCTACAAGAACGTTGTGGGGGCACGCCGCTCTTCTCTGGAGGGTCATCAGTAGCATTGAGCAGAA
GACATCTGCAGACGGCAATGAGAAGAAGATTGAGATGGTCCGTGCGTACCGGGAGAAGATAGAGAAGGAGTTGGA
GGCTGTGTGCCAGGATGTGCTGAGCCTGCTGGATAACTACCTGATCAAGAATTGCAGCGAGACCCAGTACGAGAG
CAAAGTGTTTCTACCTGAAGATGAAAGGGGACTACTACCGCTACCTGGCTGAAGTGGCCACCGGAGAGAAAAGGGC
GACGGTGGTGGAGTCTCTCCGAGAAGGCCTACAGCGAAGCCCACGAGATCAGCAAAGAGCACATGCAGCCCACCCA
CCCCATCCGATTAGGCCTGGCTCTTAATACTACTCCGCTCTTCTACTATGAGATCCAGAAGCCCCAGAGCAAGCGTG
CCACTTGGCCAAGACCGCGTTCGACGACGCCATCGCCGAGCTTGACACCCTCAACGAGGACTCCTACAAGGACTC
CACGCTCATCATGCAGCTCCTCCGCGACAACCTCACGCTCTGGACGAGCGACCAGCAGGACGACGATGGCGGCGA
AGGCAACAATTAAGGCCCCAGGGGAACTGGCAGCGCACGCGGATGCTACTACTGCAGTCTTTATTTTTTCCCAT
GAGTTGGGGGTCGGGTGGGGGAGGGAAAGGGAGGGATGACCTTCCAGGGAGAAACCCACGACCTGTCTGTCTT
TGATCGCCTCTTTGACATTTTTGCCAAAATACCACTAGTGGAAGTCAGGCTAGCTGTGCTGGTATTGGAATAGC
AGCCTCACACTGGCGTCTGGACTGTTCTGTAGATTTCATGCAAGTGGAGCTGTCTGTCTCTAATTTAACTTATTGC
TAGATAATAGGGTTTTAGATGAAAAGAAAACCTAAAGAGGAATGGCCCTCATTAGTAAGTTCTGTGGTTCCAG
TAAGGATTTTTATGTACATACGCTCTCGTCTCTCGTTTTGGGTACTTTCTATCTCATCTGTCTCGGCTCTGCATG
TTTTCCAGGGTGTAGCCTACAGACATGGAACAGTGTAATCCCAGACTGACAGACTTAGAACCTGAGGTCTCATT
CATCCTTATGGTTTAGGCCTTGCCAGTTTTCCGAAGTCTCTGATTAGTTGACAGTATTAACACTAAATTGCAGTT
TACAGTATTTCTACATTACAGCCATATGTAACATCAAGCCATCGATTGTGTACTTTTCTTTTGTAGTTGTTTGG
GCTTTAACATCCTTATTCAGCCTTATCCAGGTTGGTTTTGTGTTGATCGGTCTCTTAGGCTAAATGAGAATGAA
AGCGACTTCAGGTTTTTGGTTCATAGGTGCTCGGCAGGTGGCTGTGGGATTTTTTTTTTTTGGTCTCTCTTCTC
TTAACGTAAATCCACCACCAAAATTATTAATCCTCTTGAGAGAAACGTGAAACGCCACAAAATAGAGAAAATTC
AGGTCTGTATGTCAATGGATCGTGTGGTATTTTTAGAGAACATCCCGCTTCTGAAGCTGTGCAGCTCCCTCCTC
AGGGATCACACTGCCGTACCCACTCTGCAGTGGGGCGTTTTCTACTGCGCCTCGTGTGGCGGACGCAGCTGGG
TGCAGAAGCTGTGGGGTCGGAGAGGCGTTTTGGAGAAGGTCTGTGGTGCAGTGTGTGAAAATTCAGGTGCTAGAAG
CCTACTGGTAGAAAAACCCAAAAGGAAGAGCTATATCCTTAACCATTTCTGTCCAATTTCTGGGAGCCTTGTGAGTG
TGTCAGTTTTTCTCTCCCGAAGACACTCCTTCCCCAAGTAATTGTAGGAAGATAAAAAAACTGTTACCAGATAAC
AAACACTTAACCTCTATTTGACCAGAACTTTTTCTCTCGAGATAGTTTTTTCTTTTAAATGAAAAAGCATAGG
AATTGGAGATTGGCTTGTCTCACGCAGCCAGTGCACATTTGGAATTGACGGAACAACGTTGCTATTTCCACCCA
TTTGTTCCTCGGCAGCCTTAAGGCCCTCATTCTCATTTCGGGTGAATCTGTCTATCTGTGAACGTGGCCCGCATGT
GCATTCTTTTTTTATATATATAAAGTCAGTGACGAGGCACTCCCGAGACGTGTAATGACACCACACTTGTTC
TTTGTTCCTTTGTTTTATTTAGGCAAGAAGAGGTGTGAGTAATTGAGGAAAACTGACAGATGCTTTTGCTAATA
CCAAAATTGAGCTTACAATTAGGAAGTGAATATGTGTAACAGGATACAGGTGACAGTGAAGATAGAAGAACCACG
ATGACCACAGACTCAATGTGCTCTGTAACATCGCACAGTTTACCCAGCATGACTTTCCTTAGGAGGCCCTCCT
CACGCTAGAGTAAAAGTCCAGTTAAGTGAAGCCTACCAGAAGAACTAGTAGAAGAAGCTTGCCGCTTTTGTGC
CTCTCACAGGCGCCTAAAGTCATTGCCATGGGAGGAAGACGATTTGGGGGGGGAGGGGGGGGAGGGTAGGTGG
GGCTTTCCCTAATTTATCTTCATGTCCAGTGAGCAGTGTTCGTTTTCTTGTAGCATTGGAATGATTTACT
GGAATTACAAAACCTATTTTTCTTTAAATTTTCTGCTTTGGCTCTGGCTGCTTTTTAGAAATGCAAGATAAAA
ATCACACCTGAGGGCTGAAAACGGAGAGGGAATGGGAGACTTGATATTTAAGCAGCTTGAATGGTTTTCTTTTC
TTTATTTTTTAAAGAAATGCACTTGCCTATGATACTGTCTCTCCAGTGAAATGATTACTCTCATTACTCTATTG
ATACAATATTGTGCATGCTAGTGTGTAATTTCTATACAGTAGCTTGAAATTGATTAACCTTATACTGTAGGTGTTA
TGTATTCCTATGACAAAAAAATTAAGTCTTCAATTTTTTAAAGGTTTTTTTTTTTTTAAATTTAATTTTTCTTTT
TGGGGGTAAAGTTTGTCTTACCAAATAGTGATTGTAACAAATTGATCTGTTTTGGATGTTGCTATAGTGACATGC
AGTTATATATTTGTTTTTAAAGGGGGGGAGCAAAAGAAACACCAGTGTTAGCTTAATCTTAATGTCTGGTGT
TGTCATGGTGAAATTATAACTATTACAGTGTGGAGAACAACAAATATGTTCTCTGAATGAGCCTTTGTGCTTTT
TGTCATGTTATGCAGTGAACATTTTTAAGGTCTAATCAGTGATTATTTTTCCAGCTCCGTGTTTCTCTAAGGAA

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FIGURE 1181B

TTATTTACACACGGACCATCTTTAGCAGTTTCCTCAGTGATGGAATATCATGAATGTGAGTCATTATGTAGCTG
TCGTACATTGAGCAAATAAACTTACAGATCTGACGCC

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FIGURE 1182

MVDREQLVQKARLAEQAERYDDMAAMKNVTELNEPLSNEERNLLSVAYKNVVGARRSSWRVISSIEQKTSADGN
EKKIEMVRAYREKIEKELEAVCQDVLSLLDNYLIKNCSETQYESKVFLKMGDYYRYLAEVATGEKRATVVESS
EKAYSEAHEISKEHMQPTHPIRLGLALNYSVFYYEIQNAPEQACHLAKTAFDDAIAELDTLNEDSYKDSTLIMQL
LRDNLTLWTSDQQDDDGEGNN

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FIGURE 1183

AGCAGTGGCCCAAAGAGGAGCAGCAGACAAGAGTGCAGTGGTGGCTGCCGCCGCACCAGCCTCAGTGGCAGATGA
CACACCACCCCCGAGCGTCGGAACAAGAGCGGTATCATCAGTGAGCCCCCTCAACAAGAGCCTGCGCCGCTCCCG
CCCGCTCTCCCACTACTCTTCTTTTGGCAGCAGTGGTGGTAGTGGCGGTGGCAGCATGATGGGCGGAGAGTCTGC
TTGACAAGGCCACTGCGGCTGCAGCCTGGCCTTCCCTGTTGGCCAATGGGATGACCTGGCGGCGGCC**ATG**GCGGT
GGACAAAAGCAACCCTACCTCAAAGCACAAAAGTGGTGTGTGGCCAGCCTGCTGAGCAAGGCAGAGCGGGCCAC
GGAGCTGGCAGCCGAGGGACAGCTGACGCTGCAGCAGTTTGCGCAGTCCACAGAGATGCTGAAGCGCGTGGTGCA
GGAGCATCTCCCGCTGATGAGCGAGGCGGGTGCTGGCCTGCCTGACATGGAGGCTGTGGCAGGTGCCGAAGCCCT
CAATGGCCAGTCCGACTTCCCCTACCTGGGCGCTTTCCCCATCAACCAGGCCTCTTCATTATGACCCCGGCAGG
TGTGTTCCCGCCGAGAGCGCGCTGCACATGGCGGGCCTGGCTGAGTACCCCATGCAGGGAGAGCTGCCTCTGCC
ATCAGCTCCGGCAAGAAGAAGCGGAAACGCTGCGGCATTGTGCGCGCCCTGCCGGCGGCGCATCAACTGCGAGCA
GTGCAGCAGTTGTAGGAATCGAAAGACTGGCCATCAGATTTGCAAATTCAGAAAATGTGAGGAACTCAAAAAGAA
GCCTTCCGCTGCTCTGGAGAAGGTGATGCTTCCGACGGGAGCCGCCTTCCGGTGGTTTT**CAGTGAC**GCGGCGGGAA
CCCAAAGCTGCCCTCTCCGTGCAATGTCACTGCTCGTGTGGTCTCCAGCAAGGGATTGGGCGAAGACAAACGGA
TGCACCCGTCTTTAGAACCAAAAATATTCTCTCACAGATTCATTCTGTTTTTATATATATATTTTTTGTGTGTC
GTTTTAACATCTCCACGTCCCTAGCATAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 1184

MAVDKSNPTSKHKSGAVASLLSKAERATELAAEGQLTLQQFAQSTEMLKRVVQEHLPLMSEAGAGLPDMEAVAGA
EALNGQSDFPYLGAFPINPGLFIMTPAGVFLAESALHMAGLAEYPMQGELPLPSAPARRSGNAAALCAPCRRRIN
CEQCSSCRNRKTGHQICKFRKCEELKKKPSAALEKVMLPTGAAFRWFQ

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FIGURE 1185

GGAACAAAAGCTGGAGCTCCACCGCGGTGGCGGCCGCTCTAGAACTAGTGGATCCCCCGGGCTGCAGGAATTCGG
CACGAGCAGAAGAGGGGGCTAGCTAGCTGTCTCTGCGGACCAGGGGAGACCCCGCGCCCCCGGTGTGAGGCGG
CCTCACAGGGCCGGGTGGGCTGGCGAGCCGACGCGGCGGCGGAGGAGGCTGTGAGGAGTGTGTGGAACAGGACCC
GGGACAGAGGAACCA**ATG**GCTCCGCAGAACCTGAGCACCTTTTGCCCTGTTGCTGCTATACCTCATCGGGCGGTGA
TTGCCGGACGAGATTTCTATAAGATCTTGGGGGTGCCTCGAAGTGCCTCTATAAAGGATATTAAAAAGGCCTATA
GGAACTAGCCCTGCAGCTTCATCCCGACCGGAACCCTGATGATCCACAAGCCCAGGAGAAATTCCAGGATCTGG
GTGCTGCTTATGAGGTTCTGTCTCAGATAGTGAGAAACGGAAACAGTACGATACTTATGGTGAAGAAGGATTAAAG
ATGGTCATCAGAGCTCCCATGGAGACATTTTTTACACTTCTTTGGGGATTTTGGTTTCATGTTTGGAGGAACCC
CTCGTCAGCAAGACAGAAATATTCCAAGAGGAAGTGATATTATTGTAGATCTAGAAGTCACTTTGGAAGAAGTAT
ATGCAGGAAATTTTGTGGAAGTAGTTAGAAACAAACCTGTGGCAAGGCAGGCTCCTGGCAAACGGAAGTGCAATT
GTCGGCAAGAGATGCGGACCACCCAGCTGGGCCCTGGGCGCTTCCAAATGACCCAGGAGGTGGTCTGCGACGAAT
GCCCTAATGTCAAACCTAGTGAATGAAGAACGAACGCTGGAAGTAGAAATAGAGCCTGGGGTGAGAGACGGCATGG
AGTACCCCTTTATTGGAGAAGGTGAGCCTCACGTGGATGGGGAGCCTGGAGATTTACGGTTCCGAATCAAAGTTG
TCAAGCACCCAATATTTGAAAGGAGAGGAGATGATTTGTACACAAATGTGACAATCTCATTAGTTGAGTCACTGG
TTGGCTTTGAGATGGATATTACTCACTTGGATGGTCACAAGGTACATATTTCCCGGGATAAGATCACCAGGCCAG
GAGCGAAGCTATGGAAGAAAGGGGAAGGGCTCCCCAACTTTGACAACAACAATATCAAGGGCTCTTTGATAATCA
CTTTTGATGTGGATTTTCCAAAAGAACAGTTAACAGAGGAAGCGAGAGAAGGTATCAAACAGCTACTGAAACAAG
GGTCAGTGCAGAAGGTATACAATGGACTGCAAGGATAT**TGA**GAGTGAATAAAATTGGACTTTGTTTTAAATAAGT
GAATAAGCGATATTTATTATCTGCAAGGTTTTTTTGTGTGTGTTTTTGTTTTTATTTTCAATATGCAAGTTAGGC
TTAATTTTTTTATCTAATGATCATCATGAATGAATAAGAGGGCTTAAGAATTTGTCCATTTGCATTTCGAAAAG
AATGACCAGCAAAAAGGTTTACTAATACGTCTCCCTTTGGGGATTTAATGTCTGGTGCTGCCGCTGAGTTTCAAG
AATTAAAGCTGCAAGAGGACTCCAGGAGCAAAAGAAACACAATATAGAGGGTTGGAGTTGTTAGCAATTTTCATTC
AAAATGCCAACTGGAGAAGTCTGTTTTTAAATACATTTTGTGTATTATTTT

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FIGURE 1186

MAPQNLSTFCLLLLYLIGAVIAGRDFYKILGVPRSASIKDIKKAYRKLALQLHPDRNPDDPQAQEKFQDLGAAYE
VLSDSEKRKQYDTYGEGLKDGHQSSHGDI FSHFFGDFGFMFGGTPRQQDRNIPRGSDI IVDLEVTLEEVYAGNF
VEVVRNKPVARQAPGKRKCNCRQEMRTTQLGPGRFQMTQEVVCECPNVKLVNEERTLEVEIEPGVRDGMETPFI
GEGEPHVDGEPGDLRFRIKVVKHPIFERRGDDLYTNVTISLVESLVGFEMDITHLDGHKVHISRDKITRPGAKLW
KKGEGLPNFDNNNIKGSLIITFDVDFPKEQLTEEAREGIKQLLKQGSVQKVYNGLQGY

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FIGURE 1187

GGCACGAGGGCCAGGAACGCCAGCCGTTTACGCGTTTCGGTCTCTCTTGGCTGACTCACCGCCCTCGCCGCCGCAC
CATGGACGCCCCCAGGCAGGTGGTCAACTTTGGGCCTGGTCCCGCCAAGCTGCCGCACTCAGTGTTGTTAGAGAT
ACAAAAGGAATTATTAGACTACAAAGGAGTTGGCATTAGTGTTCTTGAAATGAGTCACAGGTCATCAGATTTTGC
CAAGATTATTAACAATACAGAGAATCTTGTGCGGGAATTGCTAGCTGTTCCAGACAACATAAGGTGATTTTTCT
GCAAGGAGGTGGGTGCGGCCAGTTCAGTGCTGTCCCCTTAAACCTCATTGGCTTGAAAGCAGGAAGGTGTGCGGA
CTATGTGGTGACAGGAGCTTGGTCAGCTAAGGCCGAGAAGAAGCCAAGAAGTTTGGGACTATAAATATCGTTCA
CCCTAAACTTGGGAGTTATACAAAAATTCCAGATCCAAGCACCTGGAACCTCAACCCAGATGCCTCCTACGTGTA
TTATTGCGCAAAATGAGACGGTGATGGTGTGGAGTTTGACTTTATACCCGATGTCAAGGGAGCAGTACTGGTTTG
TGACATGTCTCTCAAACCTTCTGTCCAAGCCAGTGGATGTTTCCAAGTTTGGTGTGATTTTTGCTGGTGCCAGAA
GAATGTTGGCTCTGCTGGGGTCACCGTGGTGATTGTCCGTGATGACCTGCTGGGGTTTGCCCTCCGAGAGTGCC
CTCGGTCTCTGGAATACAAGGTGCAGGCTGGAAACAGCTCCTTGTAACAACGCTCCATGTTTCAGCATCTACGT
CATGGGCTTGGTTCCTGGAGTGGATTAAAAACAATGGAGGTGCCGCGGCCATGGAGAAGCTTAGCTCCATCAAATC
TCAAACAATTTATGAGATTATTGATAATTCTCAAGGATTCTACGTTTGTCCAGTGGAGCCCCAAAATAGAAGCAA
GATGAATATTCCATTCCGCATTGGCAATGCCAAAGGAGATGATGCTTTAGAAAAAAGATTTCTTGATAAAGCTCT
TGAATCAATATGTTGTCTTGAAAGGGCATAGGTCTGTGGGAGGCATCCGGGCCTCTCTGTATAATGCTGTAC
AATTGAAGACGTTCAGAAGCTGGCCGCCTTCATGAAAAAATTTTGGAGATGCATCAGCTAT**TGA**ACACATCCTAA
CCAGGATATACTCTGTTCTTGAACAACATACAAAGTTTAAAGTAACTTGGGGATGGCTACAAAAGTTAACACAG
TATTTTTCTCAAATGAACATGTTTATTGCAGATTCTTCTTTTTTGAAAGAACAACAGCAAAACATCCACAACCTCT
GTAAAGCTGGTGGGACCTAATGTCACCTTAATTCTGACTTGAAGTGAAGCATTTTAAGAAATCTTGTTGCTTTT
CTAACAAATTCCCGCGTATTTTGCTTTGCTGCTACTTTTTCTAGTTAGATTTCAAACCTTGCTGTGGACTTAAT
AATGCAAGTTGCGATTAATTATTTCTGGAGTCATGGGAACACACAGCACAGAGGGTAGGGGGCCCTCTAGGTGC
TGAATCTACACATCTGTGGGTCTCCTGGGTTTCAAGGTCAGCGCTGTTGATTCAAGGTCAACATTGACCATTGGAGGAGT
GGTTTAAAGAGTGCCAGGCGAAGGGCAAAGTGTAGATCGATCTTTATGCTGTTATTACAGGAGAAGTGACATACTT
TATATATGTTTATATTAGCAAGGTCTGTTTTTAATACCATATACTTTATATTTCTATACATTTATATTTCTAATA
ATACAGTTATCACTGATATATGTAGACACTTTTGAATTTATTAAATCCTTGACCTTGTGCATTATAGCATTCCA
TTAGCAAGAGTTGTACCCCTCCCGAGTCTTTCGCTTCTCTTTTTTAAGCTGTTTTATGAAAAAGACCTAGAAGT
TCTTGATTCATTTTTACCATTTCTTCCATAGGTAGAAGAGAAAAGTTGATTGGTTGGTTGTTTTTCAATTATGCCA
TTAAACTAAACATTTCTGTTAAATTACCCTATCCTTTGTTCTCTACTGTTTTCTTTGTAATGTATGACTACGAGA
GTGATACTTTGCTGAAAAGTCTTTCCCCTATTGTTTATCTATTGTGCTAGTATTTTATGTTGAATATGTAAAGAACA
TTAAAGTCCTAAACATCTAAAAA

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FIGURE 1188

MDAPRQVVNFGPGPAKLPHSVLLEIQKELLDYKGVGISVLEMSHRSSDFAKIINNNTENLVRELLAVPDNYKVIFL
QGGGCGQF\$AVPLNLIGLKAGRCADYVVTGAWSAKAAEEAKKFGTINIVHPKLGSYTKIPDPSTWNLNPDASYVY
YCANETVHGVEFDFIPDVKGAVLVCDMSSNFLSKPVDVSKFGVIFAGAQKNVGSAGVTVVIVRDDLLGFALRECP
SVLEYKVQAGNSSLYNTPPCF\$IYVMGLVLEWIKNNGGAAAMEKLSSIKSQTIIYEIIDNSQGFYVCPVEPQNRSK
MNIPFRIGNAKGDDALEKRFLDKALELNMLSLKGHR\$VGGIRASLYNAV\$TIEDVQKLA\$AFM\$K\$FLEM\$H\$Q\$

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FIGURE 1189

CGCCCGTCGGGGTCTCGTTTCAGCAGCCAATGGGTCTGCACCTTCGTCCTCGTCAGCATTCTGTCTAATCGCGGC
CTGTGACCTCGAAGGCGGGAGCAGAGGGAGATACAGAAACCGACAGGGCCAGGCGCCGGTGGCTCCGAAGCGGG
GAAGTGGGACAAGATGGTTTACATCTCGAACGGACAAGTGTGGACAGCCGGAGTCAGTCTCCATGGAGATTATC
TTTGATAACAGATTTCTTCTGGGGAATAGCTGAGTTTGTGGTTTTGTTTTTCAAACTCTGCTTCAGCAAGATGT
GAAAAAAGAAGAAGCTATGGAACTCATCTGATTCCAGATATGATGATGGAAAGAGGGCCACCAGGAAACCTCC
CCGAAGAATGGGTAGAATCAATCATCTGCGTGGCCCTAGTCCCCCTCCAATGGCTGGTGGATAGGGAAGGTAAAT
GTCTGCTCTAAGAAGCAGACAACCGGACATGCGCATTCATAGCAGAAGGAAACCATCAAGAAGTGAAGGCTGAC
CATGATGAGCAGTAGATGAATGTGTATGTCTAAACAAGGACTGCTCTGTGTCCTCACAGATGAATGAGGTCATGC
TGGGAATTCCCTCTGCAGGGAAGTGGCCTGACTGACATGCAGTTCCATAAATGCAGATGTTTGTCTCATTACCTT
TTTGTATAGTTTATTAAAGTATTAATATAGTTTTAATAAGTAAATATTTTAGGTTGCAGAATGGACTCCTCATC
TTTATATTACGAAAAAGCAATCTGAAGAAAACAAATAAAAGCCTGTGTATTTAGCAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAA

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FIGURE 1190

ARRGLVSAANGSAPSSSSAFCLIAACDLEGGEQREIQKPTGPGAGGSEAGKWDKMVYISNGQVLDSRSQSPWRLS
LITDFFWGIAEFVVLFFKTLQQDVKKRRSYGNSSDSRYDDGRGPPGNPPRRMGRINHLRGPSPPPMAGG

FIGURE 1191

ATGTTGGTGCTGTTTGAACGTCGTGGGTTACGCCATCTTTAAGGTTCTAAATGAGAAGAACTTCAAGAGGTT
GATAGTTTATGGAAAGAATTTGAACTCCAGAGAAAGCAAACTAGTAAAGCTAAAACATTTTGAGAAATTT
CAGGATACAGCAGAAGCATTAGCAGCATTACAGCTCTGATGGAGGGCAAAATCAATAAGCAGCTGAAAAAGTT
CTGAAGAAAATAGTAAAAGAAGCCCATGAACCGCTGGCAGTAGCTGATGCTAACTAGGAGGGGTCATAAAGGAA
AAGCTGAATCTCAGTTGTATCCATAGTCCTGTTGTTAATGAACTTATGAGAGGAATTCGTTACAAATGGATGGA
TTAATCCCTGGGGTAGAACCACGTGAAATGGCAGCTATGTGTCTTGGATTGGCTCACAGCCTGTCTCGATATAGA
TTGAAGTTTAGCGCTGATAAAGTAGACACAATGATTGTTTCAGGCAATTTCCCTGTTAGATGACTTGGATAAAGAA
CTAAACAACTACATTATGCGATGTAGAGAATGGTATGGCTGGCATTTCCTGAATTAGGAAAAATTATTTTCAGAT
AATTTAACATACTGCAAGTGTTTACAGAAAGTTGGCGATAGGAAGAACTATGCCTCTGCCAAGCTTTCTGAGTTG
CTGCCAGAAGAAGTTGAAGCAGAAGTGAAGCAGCTGCAGAGATATCAATGGGAACAGAGGTTTTCAGAAGAAGAT
ATTTGCAATATTCTGCATCTTTGCACCCAGGTGATTGAAATCTCTGAATATCGAACCCAGCTCTATGAATATCTA
CAAAATCGAATGATGGCCATTGCACCCAATGTTACAGTCATGGTTGGGGAATTAGTTGGAGCACGGCTTATTGCT
CATGCAGGTTCTCTTTTAAATTTGGCCAAGCATGCAGCTTCTACCGTTCAGATTCTTGGAGCTGAAAAGGCACTT
TTCAGAGCCCTCAAATCTAGACGGGATACCCCTAAGTATGGTCTCATTTATCATGCTTCACTCGTGGGCCAGACA
AGTCCCAAACACAAAGGAAAGATTTCTCGAATGCTGGCAGCCAAAACCGTTTTGGCTATCCGTTATGATGCTTTT
GGTGAGGATTCAAGTTCTGCAATGGGAGTTGAGAACAGAGCCAAATTAGAGGCCAGGTTGAGAACTTTGGAAGAC
AGAGGGATAAGAAAAATAAGTGAACAGGAAAAGCATTAGCAAAAACAGAAAAATATGAACACAAAAGTGAAGTG
AAGACTTACGATCCTTCTGGTGACTCCACACTTCCAACCTGCTCTAAAAAACGCAAAATAGAACAGGTAGATAAA
GAGGATGAAATTACTGAAAAGAAAGCCAAAAAGCCAAGATTAAAGTTAAAGTTGAAGAAGAGGAAGAAGAAAAA
GTGGCAGAAGAAGAAGAACATCTGTGAAGAAGAAGAAAGGGGTAAAAAGAAACACATTAAGGAAGAACCA
CTTTCTGAGGAAGAACCATGTACCAGCACAGCAATTGCTAGTCCAGAGAAAAAGAAGAAAAAGAAAAAAGAGA
GAGAACGAGGATTAA

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FIGURE 1192

MLVLFETSVGYAIFKVLNEKKLQEVDSLWKEFETPEKANKIVKLKHFKEFQDTAEALAAFTALMEGKINKQLKKV
LKKIVKEAHEPLAVADAKLGGVIKEKLNLSCTHSPVNVNLMRGIRSQMDGLIPGVEPREMAAMCLGLAHSLSRYR
LKFSADKVDTMIVQAISLLDDLDKELNNYIMRCREWYGWHFPELGKII SDNLTYCKCLQKVGDRKNYASAKLSEL
LP EEVEAEVKAAAEISMGTEVSEEDICNHLCTQVIEISEYRTQLYEYLQNRMMAIAPNVTVMVGELVGARLIA
HAGSLNLAKHAASTVQILGAEKALFRALKSRRDTPKYGLIYHASLVGQTSPKHKGKISRMLAAKTVLAIRYDAF
GEDSSSAMGVENRAKLEARLRTLEDRGIRKISGTGKALAKTEKYEKKSEVKTYDPSGDSTLPTCSKKRKIEQVDK
EDEITEKKAKKAKIKVKVEEEEEKVAEEEEETSVKKKKKKRGKKKKHIKEEPLSEEPCTSTAIASPEKKKKKKKKR
ENED

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FIGURE 1193

GGGGGTGGCGGGGACGCGAGTGGCGGCCGCGGGGCCCCGGACAAGGGTCCGCAGAGCTGCAGCCTTCGAGGGCCA
GCCCTCTCCGAGTCCGGGGCTGGGTCCCACCAAGTGACAAGGCGGCAGCCCCGCGCACACCAAAGAGAAAGCGGCT
GTGGCGGCAGCGGCAGCCCCAGCC**ATG**CTGTGTTATGTGACGAGGCCGGACGCGGTGCTGATGGAGGTGGAGGTG
GAGGCGAAAGCCAACGGCGAGGACTGCCTCAACCAGGTGTGCAGGCGACTGGGAATCATAGAAGTTGACTATTTT
GGACTGCAATTTACGGGTAGCAAAGGTGAAAGTTTATGGCTAAACCTGAGAAACCGGATCTCCCAGCAGATGGAT
GGGCTAGCCCCCTTACAGGCTTAACTTAGAGTCAAGTTCTTCGTGGAGCCTCATCTCATCTTACAGGAGCAGACT
AGGCATATCTTTTTCTTGACATCAAGGAGGCCCTCTTGGCAGGCCACCTCTTGTTGCCAGAGCAGGCAGTG
GAACTCAGTGCCCTCCTGGCCCAGACCAAGTTTGGAGACTACAACCAGAACTGCCAAGTATACTATGAGGAG
CTCTGTGCCAAGGAGCTCTCCTCTGCCACCTTGAACAGCATTGTTGCAAAACATAAGGAGTTGGAGGGGACCAGC
CAGGCTTCAGCTGAATACCAAGTTTTCAGATTGTGTGCGCAATGGAAAACATATGGCATAGAATGGCATTCTGTG
CGGGATAGCGAAGGGCAGAGACTGCTCATTGGGGTTGGACCTGAAGGAATCTCAATTTGTAAAGATGACTTTAGC
CCAATTAATAGGATAGCTTATCCTGTGGTGCAGATGGCCACCCAGTCAGGAAAGAATGTATATTTGACGGTCACC
AAGGAATCTGGGAACAGCATCGTGCTCTTGTTTTAAATGATCAGCACCAGGGCGGCCAGCGGGCTCTACCGAGCG
ATAACAGAGACGCACGCATTCTACAGGTGTGACACAGTGACCAGCGCCGTGATGATGCAGTATAGCCGTGACTTG
AAGGGCCACTTGGCATCTCTGTTTCTGAATGAAACATTAACCTTGGCAAGAAATATGTCTTTGATATTAAAGA
ACATCAAAGGAGGTGTATGACCATGCCAGGAGGGCTCTGTACAATGCTGGCGTTGTGGACCTCGTTTCAAGAAGC
AACCAGAGCCCTTCACACTCGCCTCTGAAGTCTCAGAAAGCAGCATGAACTGCAGCAGCTGCGAGGGCCTCAGC
TGCCAGCAGACCCGGGTGCTGCAGGAGAAGCTACGCAAGCTGAAGGAAGCCATGCTGTGCATGGTGTGCTGCGAG
GAGGAGATCAACTCCACCTTCTGTCCCTGTGGCCACACTGTGTGCTGTGAGAGCTGCGCCGCCAGCTACAGTCA
TGTCCCGTCTGCAGGTCGCGTGTGGAGCATGTCCAGCACGTCTATCTGCCAACGCACACCAGTCTTCTCAATCTG
ACTGTAATCT**TAA**TCTGTTGTGCTTTTGTGGACTTGGCATGTTTCCATGAACTGCACTATTATAAACTATTAAAA
TGATAGATGTTGGAGAAAGTAATTATTCCAACACCCATCTGCCCATGCGATGTTAAAAAA

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FIGURE 1194

MLCYVTREDAVLMEVEVEAKANGEDCLNQVCRRLGII EVDYFGLQFTGSKGESLWLNLRNRISQQMDGLAPYRLK
LRVKFFVEPHLILQEQRHIFFLHIKEALLAGHLLCSPEQAVELSALLAQTKFGDYNQNTAKYNYEELCAKELSS
ATLNSIVAKHKELEGTSQASA EYQVLQIVSAMENYGIEWHSVRDSEGQRLLIGVGPEGISICKDDFSPINRIAYP
VVQMATQSGKNVYLTVTKESGNSIVLLFKMISTRAASGLYRAITETHAFYRCDTVTSVMMQYSRDLKGHLASLF
LNENINLGKKYVFDIKRTSKEVYDHARRALYNAGVVDLVSRSNQSPSHSPLKSSESSMNCSSCEGLSCQQTRVLQ
EKLRLKEAMLCMVCCEEIINSTFCPCGHTVCCESCAAQLQSCPVCRSRVEHVQH VYLPHTHTSLLNLTVI

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FIGURE 1195

GCGGCCGCGGGGCCCCGGACAAGGGTCCGCGAGAGCTGCAGCCTTCGAGGGCCAGCCCTCTCCGAGTCCGGGGCTG
GGTCCCACCAGTGACAAAGGCGGCAGCCCCGCGCACACCAAAGAGAAGGCGGCTGTGGCGGCAGCGGCAGCCCCAG
CCATGCTGTGTTATGTGACGAGGCCGGACGCGGTGCTGATGGAGGTGGAGGTGGAGGCGAAAGCCAACGGCGAGG
ACTGCCTCAACCAGGCATATCTTTTTCTTGACATCAAGGAGGCCCTCTTGGCAGGCCACCTCTTGTTGTTCCCCA
GAGCAGGCAGTGGAATCAGTGCCCTCCTGGCCAGACCAAGTTTGGAGACTACAACCAGAACACTGCCAAGTAT
AACTATGAGGAGCTCTGTGCCAAGGAGCTCTCCTCTGCCACCTTGAACAGCATTGTTGCAAAACATAAGGAGTTG
GAGGGGACCAGCCAGGCTTCAGCTGAATACCAATTTTGCCAGATTGTGTGCGCAATGCAAAACTATGGCATAGAA
TGGCATTCTGTGCGGGATAGCGAAGGGCAGAACTGCTCATTGGGGTTGGACCTGAAGGAATCTCAATTTGTAAA
GATGACTTTAGCCCAATTAATAGGATAGCTTATCCTGTGGTGCAGATGGCCACCCAGTCAGGAAAGAATGTATAT
TTGACGGTCACCAAGGAATCTGGGAACAGCATCGTGCTCTTGTTTAAAAATGATCAGCACCAGGGCGGCCACGCGG
CTCTACCGAGCGATAACAGAGACGCACGCATTCTACAGGTGTGACACAGTGACCAGCGCCGTGATGATGCAGTAT
AGCCGTGACTTGAAGGGCCACTTGGCATCTCTGTTTCTGAATGAAAAACATTAACCTTGGGCCAAGAAATTATGTC
TTTGATATTTAAAGAACATCAAAGGAGGTGTATGACCATGCCAGGAGGCTCTGTACAATGCTGGCGTTGTGGAC
CTCGTTTCAAGAACAACCAGAGCCCTTCACACTCGCCTCTGAAGTCCTCAGAAAGCAGCATGAACTGCAGCAGCT
GCGAGGGCCTCAGCTGCCAGCAGACCCGGGTGCTGCAGGAGAAGCTACGCAAGCTGAAGGAAGCCATGCTGTGCA
TGGTGTGCTGCGAGGAGGAGATCAACTCCACCTTCTGTCCCTGTGGCCACACTGTGTGCTGTGAGAGCTGCGCCG
CCCAGCTACAGTCATGTCCCGTCTGCAGGTGCGGTGTGGAGCATGTCCAGCACGTCTATCTGCCAACGCACACCA
GTCTTCTCAATCTGACTGTAATCTAATCTGTTGTGCTTTTGTGGACTTGGCATGTTTCCATGAACTGCAGTATT
ATAAACTATTAAATGATAGATTGTGGAGAAAGTAATTATTCCAACACCCATCTGCCATGCGATGTTAAAAA
AAAAAAGGAAGAAAAATAACACAGCTACTCCTCACTGCAAAAACATATCCATGCGTAGAATCAACAACCTCCAGT
CATGGGACCAGGAGGAGCTCTGGGACGCAGACACATTCTTGGATGTTGATTTTTTTTTATGATCTAGTAAAGGAA
TAGGTAAAGTCTTTGATGTGAGTGAAGTGGCAACATAGCCAAAAAGTTGGGTACCTTTTAGGAAATGATGTTGTA
AGTCTCCTTAATGTATCCTGAGGTAAGTTTCTACTGGCAGCAGATTTTGTAGAATTACTTTTAAGAATTTTAT
TCTTTTTGTATGGTCATGGAGCTCCAACCATTTTTAATAGGAAAGTCTTTTGTAAAATTGTTGTCGTTTTAATGT
CATTTCTGTCTTTATAACTTGATCAAGAATGATTGGAAGGCAACAGGTTTACAAATCAATTCTGTGACTTTTAA
AAAGTTGACAATGTTGTGAGATTTAAACCAGTGTGGCTAGTAAAAAGCAGCTCACTCAATGTTGGGTGGCTCCCT
ATTCTTTTACGCTCCCCCTATCCCTACCCACAAGCCTTTTCGATTATAAAATACTACCAATCTTGTTATAAGATT
ACTGTGGAGTAGTCAAGTACTCCCGGGCCTTCTGAGCTGGTGGAATATTTTATTTAGACTGAAAACAGAGAGC
ACTCTCCTTGGGAAGGGAAGCGGCTTGTGAGTGAGAGATGGAGCCTCATGGTGTACAACAGAGGGTAGTTAAC
TCATCACTTCTCCAAGCACTCGATCCAGCTTCACCCACTGGTGTGCTTTGCTTGAAGTGTTCAGCCTTTTA
TAGCCTTACCATAAGTATTTAGATATGGTGTCTTTTCTGTTTTTGGGGGGGAGTTTTGTTGTGTTTTTTTAA
GTAAGTGCTTAAGTATTAACCTTGGGTTGTCCCTCTGTATGTTTCGAAGGGGTTTTGGTTCTTTTTGCTTCTGT
TTTCTTAAACATGTTTTCCACTCCCACTTGGGCATTTTGAAGCTGGTCAGCTAGCAGGTTTTCTGGGATGTCGG
GAGACCTAGATGACCTTATCGGGTGCAATACTAGCTAAGGTAAAGCTAGAAACCTACACTGTCACTTTACTGAGA
TTTCTGAGTATACTTTTCATATTGCCTTAATGTAGCAGTAATGTGTTTATGCATTTGTTTCTTTGCACAGACATT
TTGTCAAATATTAAACTCTACTTTTTTATGGCACATATTAGCATATAAGCCTTTATTCCAAGAGGTATTTATTT
TTTCACTTGTAATAAATAATGTTTCCACGTAAAGAACTCTGTATATCCTAGAGGACTCTGTCTTTTATATTTCG
GGATAATAAGACTTTAAAGCAAAAAAAAAAAAAAAAAA

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FIGURE 1196

MENYGIEWHSVRDSEGQKLLIGVGPEGISICKDDFSPINRIAYPVVQMATQSGKNVYLTVTKESGNSIVLLFKMI
STRAATRLYRAITETHAFYRCDTVISAVMMQYSRDLKGHSLFLNENINLGPRNYVFDI

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FIGURE 1197

AGAAGGGAAGGTAGACATCAGGTTCTCCCTGGAGACTTTTCGTTTTTCATTTACGCTGCGGAAACTGACGTTTTTG
CCTAACACCCCATGTAATGTAAACGTATAGGCTTGAGTACGTGTCCGGCCGCATGTGTAGTGAACCCTAAAGCTT
TCCTAATTGTAGTTAGCATCGTCCCTAAGCGGAACGATTTTCCGTGAACATGATTTGTACTTTTCTACGAGCCGT
ACAGTATACGGAGAAGCTGCACAGGTCCTCGGCAAAGCGATTGCTTTTGCCATACATCGTGCTTAACAAAGCGTA
CTTGAAGACTGAGCCAGTTTGAGATGTGGGCTTCAATATCAAAAGAAAACGCTGCGACCTAGATGTATTCTTGG
AGTCACCCAGAAAACCATCTGGACGCAGGGACCGAGCCCCGAAAAGCAAAGGAGGATGGCAGCAAACAAGTGTC
TGTGCACAGGAGTCAGAGAGGGGGAACCGCCGTCCCAACATCACAAAAGTGAAAGAAGCCGGAAGAGATTTTAC
CTATTTAATAGTGGTGCTTTTTGGAATCAGCATTACAGGTGGCTTGTTTTACACGATTTTCAAAGAACTTTTTC
TTCATCCAGTCCTAGCAAGATATATGGGAGAGCCTTAGAAAAATGCAGATCACATCCTGAGGTGATCGGTGTCTT
TGGTGAGTCTGTAAAGGCTATGGGGAGGTGACAAGGCGGGGTCGCCGGCAGCATGTGAGGTTCACTGAATATGT
AAAAGATGGGCTGAAACACACGTGTGTGAAATTCTACATTGAGGGCTCTGAGCCAGGGAAGCAAGGAACGGTGTA
TGC GCAAGTGAAAGAGAACCCAGGAAGTGGTGAATATGATTTTCGATATATATTTGTAGAAATTGAATCTTATCC
TAGAAGAACTATTATCATTGAAGATAATCGATCCCAAGATGATTAAATAATCAAGCAAGCAGGTTTCTGATGGATG
TTGAATGGCGTGGACTCGCTACTCCGTTCTTCACAGCTGCCTTCAGAATGTGTTCAAAAGAAAGACAAGAAGGA
GTGTATGGCTTATAAAGTGAATCTAATACAGTATTTGTTGCATTTAAACAAACTAGACATTTTCTTACGGAAAAA
TTATGAAATACAGCATATTTTATGTTCTCCCATGACTCAATCATGACAATATTTCTGCTTTAACACCATCTTTC
GTGATTAGAAATGTTTGTATTGGAAATGTTACCATGTAAATAAAGGAAATAGATTTTGTATTGTATTTCATT
TTATATTATAGAACTGCATAATGTCTGCAGAATAAAATTAAACTAACAATAAAAAAAAAAAAAAAAAA

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FIGURE 1198

MICTFLRAVQYTEKLHRSSAKRLLLPYIVLNKAYLKTEPSLRGLQYQKTLRPRCILGVTQKTIWTQGSPRKA
KEDGSKQVSVHRSQRGGTAVPTSQKVKEAGRDFTYLIVVLFGISITGGLFYTIFKELFSSSSPSKIYGRALEKCR
SHPEVIGVFGESVKGYGEVTRRGRRQHVRFTYVVDGLKHTCVKFYIEGSEPGKQGTVYAQVKENPGSGEYDFRY
IFVEIESYPRRTIIIEDNRSQDD

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FIGURE 1199

CAGGGCTGGGCGGCGGCGGCGGCGGCGGTC**ATG**GAACGCCAAGAGGAGTCTCTGTCCGCGCGGCCGGCCCTGGAG
 ACCGAGGGGCTGCGCTTCCTGCACACCACGGTGGGCTCCCTGCTGGCCACCTATGGCTGGTACATCGTCTTCAGC
 TGCATCCTTCTCTACGTGGTCTTTCAGAAGCTTTCGCCCCGGCTAAGAGCCTTGAGGCAGAGGCAGCTGGACCGA
 GCTGCGGCTGCTGTGGAACCTGATGTTGTTGTTAAACGACAAGAAGCTTTAGCAGCTGCTCGACTGAAAATGCAA
 GAAGAACTAAATGCGCAAGTTGAAAAGCATAAGGAAAAACTGAAACAACCTGAAGAAGAAAAAGGAGACAGAAG
 ATTGAAATGTGGGACAGCATGCAAGAAGGAAAAAGTTACAAAGGAAATGCAAAGAAGCCCCAGGAGGAAGACAGT
 CCTGGGCGCTTCCACTTCAICTGTCTGAAACGGAAATCGGACAGAAAGCCTTTGCGGGGAGGAGGTTATAACCCG
 TTGTCIGGTGAAGGAGGCGGACTTGCTCCTGGAGACCTGGACGCAGAGGCCCGTCATCTGGCGGATGAGGCTAAG
 AATCTTGTTAGTGTCACTTTTGACATTAGCAAGATGAACCCCT**TAA**CCCTCGATTCAATTGCCTTACGCACGCTTT
 TCACAGTGACTAGCCAAGGGGAGGTGGGGTTGATTTCTGTTCCTAACCTACACCTGCATATGTCAGGGCTCCAGTC
 AGCAAAAGGTATAGATGTTGCCTCTAGGCATGAGGTCAATTGGTCACATTCTACTTGGAGACAGTGATTGCATTCA
 TTGATTTTCATGGTTAATTGCTAGTTGGTAGGTAAAGGCCTCTAGATGATTAGCAATCTTGATAAAAGAGGCCTAG
 TAATGTTCTTTTGAGGTTAGAAATCCTTGCTGCTAGGACAGTCTCTGTGACAGGTTGCGTTGAATGATGTCTTCC
 TTATCAATGGTGAGCCCACCAGTGAGGATTACTGATGTGGACAGTTGATGGGGTTTGTCTGTATATTTATTTT
 TATGTACAGAACTTTGTAAAAACGAACTATTTAAAAACAAGAATAACATTTTATGCATCTTTATTCAAGGAGA
 TTTATGGACTTCAATTTGTCTATCAAACATTAAATAGCTTTTATTACAACCTCCAAAAAAAAAAAAAAAAAAAA
 AAAAAAAAAA

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FIGURE 1200

MERQEESLSARPALETEGLRFLHTTVGSLLATYGWYIVFSCILLYVVFQKLSARLRALRQRQLDRAAAAVEPDVV
VKRQEALAAARLKMQEELNAQVEKHKEKLQLEEEKRRQKIEMWDSMQEGKSYKGNAKKPQEEDSPGPSTSSVLK
RKSDRKPLRGGGYNPLSGEGGGLAPGDLDAEARHLADEAKNLVSVTFDISKMNP

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FIGURE 1201A

GAGCCGGTGGCGCAGGTGTCGGGGTCTCGAGCGCCAGCCTGGGAGC**ATG**ATTGTGGACAAGCTGCTGGACGAC
AGCCGCGGCGGAGAGGGGCTGCGGGACGCGGCGGGCGGCTGCGGCCTCATGACCAGCCCGCTCAACCTGAGCTAC
TTCTACGGCGCGTCGCCGCCCGCCGCCCGGGCGCCTGCGACGCCAGCTGCTCGGTCTTGGGCCCTCGGCG
CCCGGCTCGCCCGGCTCCGACTCCTCCGACTTCTCCTCTGCCTCGTCGGTGTCTCTCTGCGGCGCCGTGGAGTCC
CGGTGAGAGGGCGGCGCCCGCGCCGAGCGCCAGCCAGTTGAGCCCCATATGGGGGTGGCAGGCAGCAGAGAGGC
CCCTTTCAAGGTGTTTCGGGTAAAGAACTCAGTGAAGGAACTCTGTGTCACATCCGAAGTCATAAACAGAAAGGCT
TCTGGCCAAGCTGTGGATGATTTTAAGACACAAGGTGTGAACATAGAACAGTTTCAAGAAATGAAGAACACAGTA
TCATACAGTGGGAAAAGGAAAGGGCCCGATTCTGTTGTCTGATGGACCTGCTTGCAAAAGGCCAGCTCTGTTGCAT
TCCCAATTTTTGACACCACCTCAAACACCAACGCGGGGAGAGCATGGAAGATGTTTCAATCTCAATGAACCCAAA
CAGGAGAGCAGTGTCTGCTTCAGAACATTATCAACATTAAGAATGAATGCAGCCCCGTTTCCCTGAACACA
GTTCAAGTTAGCTGGCTGAACCCCGTGGTGGTCCCTCAGAGCTCCCCCGCAGAGCAGTGTGAGGACTTCCATGGA
GGGACAGGTCTTTTCTCCACCTCAGAAATGCCAACCAATTCCAAGTCAGGGGCTCCCAACAAATGATAGACCAGGCT
TCCCTGTACCAGTATTCTCCACAGAACCAGCATGTAGAGCAGCAGCCACACTACACCCACAAACCAACTCTGGAA
TACAGTCTTTTCCCATACCTCCCCAGTCCCCCGCTTATGAACCAAACTCTTTGATGGTCCAGAATCACAGTTT
TGCCCAACCAAAAGCTTAGTTTCCCTTCTTGGTGATCAAAGGGAATCTGAGAATATTGCTAATCCCATGCAGACT
TCCTCCAGTGTTTACGAGCAAAATGATGCTCACTTGCACAGCTTACAGCATGATGCCAGCAGCGCTGTGAGGCC
ATGGTGGGGCACGAGATGGCCTCTGACTCTTCAAACACTTCACTGCCATTCTCAAACATGGGAAATCCAATGAAC
ACCACACAGTTAGGGAAATCACTTTTTTCAGTGGCAGGTGGAGCAGGAAGAAAGCAAATTGGCAAATATTTCCCAA
GACCAGTTTCTTTCAAAGGATGCAGATGGTGACAGTTTCTTCATATTGCTGTTGCCAAAGGGAGAAGGGCACTT
TCCTATGTTCTTGAAGAAAGATGAATGCACTTCACATGCTGGATATTAAAGAGCACAATGGACAGAGTGCCTTT
CAGGTGGCAGTGGCTGCCAATCAGCATCTCATTGTGCAGGATCTGGTGAACATCGGGGCACAGGTGAACACCACA
GACTGCTGGGGAAGAACACCTCTGCATGTGTGTGCTGAGAAGGGCCACTCCAGGTGCTTCAGGCGATTGAGAAG
GGAGCAGTGGGAAGTAATCAGTTTGTGGATCTTGAGGCAACTAACTATGATGGCCTGACTCCCTTCACTGTGCA
GTCATAGCCCACAATGCTGTGGTCCATGAACCTCAGAGAAATCAACAGCCTCATTACCTGAAGTTGAGGAGCTT
TTACTGAAGAATAAGAGTCTGGTTGATACCATTAAAGTGCCTAATTCAAATGGGAGCAGCGGTGGAAGCGAAGGAT
CGCAAAGTGGCCGCACAGCCCTGCATTGGCAGCTGAAGAAGCAAATCTGGAACCTATTCGCCTCTTTTTGGAG
CTGCCAGTTGCCTGTCTTTTGTGAATGCAAAGGCTTACAATGGCAACACTGCCCTCCATGTTGCTGCCAGCTTG
CAGTATCGGTTGACACAATTAGATGCTGTCCGCCTGTTGATGAGGAAGGGAGCAGACCCAAGTACTCGGAACCTG
GAGAACGAACAGCCAGTGCATTGGTTCCCGATGGCCCTGTGGGAGAACAGATCCGACGTATCTGAAGGGAAAG
TCCATTACGACAGAGAGCTCCACCGTAT**TAG**CTCCATTAGCTTGGAGCCTGGCTAGCAACACTCACTGTGAGTTAG
GCAGTCTGATGTATCTGTACATAGACCATTGCGCTTATATTGGCAAATGTAAGTTGTTTCTATGAAACAAACAT
ATTTAGTTCACTATTATATAGTGGGTTATATTAAAGAAAAGAAGAAAAATATCTAATTTCTCTTGGCAGATTTG
CATATTTTACATCCAGGTATCTGGGATCTAGACATCTGAATTTGATCTCAATGGTAACATTGCCTTCAATTAACA
GTAGCTTTTGAAGTAGGAAAGGACTTTGATTTGTGGCACAAAACATTATTAATATAGCTATTGACAGTTTCAAAGC
AGGTAAATTGTAAATGTTTCTTTAAGAAAAAGCATGTGAAAGGAAAAAGGTAAATACAGCATTGAGGCTTCATTT
GGCCTTAGTCCCTGGGAGTTACTGGCGTTGGACAGGCTTCAGTCATTGGACTAGATGAAAGGTGTCCATGGTTAG
AATTTGATCTTTGCAAACTGTATATAATTGTTATTTTTGTCTTAAAAATATTGTACATACTTGGTTGTTAACAT
GGTCATATTTGAAATGTATAAGTCCATAAAATAGAAAAGAACAAGTGAATTGTTGCTATTTAAAAAATTTTACA
ATTCTTACTAAGGAGTTTTTATTGTGTAATCACTAAGTCTTTGTAGATAAAGCAGATGGGGAGTTACGGAGTTGT
TCCTTTACTGGCTGAAAGATATATTCGAATTGTAAAGATGCTTTTTCTCATGCATTGAAATTATACATTATTTGT
AGGGAATTGCATGCTTTTTTTTTTTTTTCTCCCGAGACAGGGTCTTGCTCTGGCGCCAGGCTGGAGTACAGTGG
CATGATCTTGGCTCACTTCAGCCTTGACTTGGGCTCAAGTGATCCTCCTACCTGAGCCTTCTGAGTAACCTGGGAC
TACAGGTGTGCACTCCTCGCCTGGCTAATTTTTTATTTTTTGTACAGGCAGGATCTTGCCACCTTGCCAGGCTG
GTCTTGAACCTCTGAGCTCATGCCATCTGCCTGCCTTAGTCTCCCAAAATGCTGGGATTACAGGAGTGAGCCACC
ATGCCCGGCTGGCAGTTGCATGGAAGAGAACACCTCTTTATGGCTTACCCTCTAGAATTTCTAATTTATGTGTTT
TGTTGAAATTTTTGTTTTTTTACCTTTATTGAAACAACAAAAAGTCAGTATTGAAACATATCTTCTGTTTTCTG
TTGTCAAATGATGATAATGTGCCATGATGTTTTATATATATCATTGAGAAAAAGTTTTATTTTTTAATAACATTC
TATTAACATTATTTTGCTTGCCGCTGGCATGCCTGAGGAATGTATTTGGCTTTGATTACACACTAAGTTTTTGTA

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FIGURE 1201B

ATAAATTTGACTCATTAAAAACCTTTTTTTTTTAAAAAAAAAAAAAAAAAGAAATCTCATTAGTGAACCTTATCTTG
CAGCTGAGTACTTAAATTCCTTTTAAAAAGATACCCTTTGGATTGATCACATTGTTTGACCCAGTATGTCTTGTA
GACACGTTAGTTATAATCACCTTGTATCTCTAAATATGGTGTGATATGAACCAGTCCATTACATTGGAAAACT
GATGGTTTTAAATAAACTAATTCATAATAAAAAAAAAAAAAAAAAA

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FIGURE 1202

MIVDKLLDDSRGGEGLRDAAGGCGLMTSPLNLSYFYGASPPAAAPGACDASCSVLGPSAPGSPGSDSSDFSSASS
VSSCGAVESRSRGGARAERQPVEPHMGVGRQQRGPFQGV RVKNSVKELLHIRSHKQKASGQAVDDFKTQGVNIE
QFRELKNTVSYSGKRKGPDSLSDGPACKRPALLHSQFLTPPQTPTPGESMEDVHLNEPKQESSADLLQNIINIKN
ECSPVSLNTVQVSWLNPVVVPQSSPAEQCQDFHGGQVFSPPQKCQPFQVRGSQQMIDQASLYQYSPQNQHVEQQP
HYTHKPTLEYSPPFIPPPQSPAYEPNLFDPESQFCPNQSLVSLLDQRESENIANPMQTSSSVQQQND AHLHSFS
MMPSSACEAMVGHEMASDSSNTSLPFSNMGNPMNTTQLGKSLFQWQVEQEE SKLANISQDQFLSKDADGDTFLHI
AVAQGRRALSYVLARKMNALHMLDIKEHNGQSAFQVAVAAHQHLIVQDLVNIGAQVNTTDCWGRTPLHVCAEKGH
SQVLQAIQKGAVGSNQFVDLEATNYDGLTPLHCAVIAHNAVVELQRNQPHSPEVQELLLKNKSLVDTIKCLIQ
MGAAVEAKDRKSGRTALHLAAEEANLELIRLFLELPSCLSFVNAKAYNGNTALHVAASLQYRLTQLDAVRLLMRK
GADPSTRNLENEQPVHLVPDGPVGEQIRRIKKGKSIQQRAPPY

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FIGURE 1203A

GAGCCGGTGGCGCAGGTGTCTGGGGTCCTCGAGCGCCAGCCTGGGAGCATGATTGTGGACAAGCTGCTGGACGAC
AGCCCGGGCGGAGAGGGGCTGCGGGACGCGGCGGGCGGCTGCGGCCTCATGACCAGCCCGCTCAACCTGAGCTAC
TTCTACGGCGCGTCGCCGCCGCCGCCGCCCGGGCGCCTGCGACGCCAGCTGCTCGGTCTTGGGCCCTCGGCG
CCCGGCTCGCCCGGCTCCGACTCCTCCGACTTCTCCTCTGCCTCGTCGGTGTCTCCTGCGGCGCCGTGGAGTCC
CGGTGAGAGGGCGGCGCCCGCGCCGAGCGCCAGCCAGTTGAGCCCCATATGGGGGTGGCAGGCAGCAGAGAGGC
CCCTTTCAAGGTGTTCGGGTAAAGAACTCAGTGAAGGAACTCCTGTTGCACATCCGAAGTCATAAACAGAAGGCT
TCTGGCCAAGCTGTGGATGATTTTAAGACACAAGGTGTGAACATAGAACAGTTCAGAGAATTGAAGAACACAGTA
TCATACAGTGGGAAAAGGAAAGGGCCCCGATTCTGTTGTCTGATGGACCTGCTTGCAAAGGCCAGCTCTGTTGCAT
TCCCAATTTTTGACACCACCTCAAACACCAACGCCCCGGGGAGAGCATGGAAGATGTTTATCTCAATGAACCCAAA
CAGGAGAGCAGTGTGATCTGCTTCAGAACATTATCAACATTAAGAATGAATGCAGCCCCGTTTCCCTGAACACA
GTTCAAGTTAGCTGGCTGAACCCCGTGGTGGTCCCTCAGAGCTCCCCCGCAGAGCAGTGTGAGGACTTCCATGGA
GGGCAGGTCTTTTCTCCACCTCAGAAATGCCAACCATTTCAAGTCAGGGGCTCCCAACAAATGATAGACCAGGCT
TCCCTGTACCAGTATTTCTCCACAGAACCAGCATGTAGAGCAGCAGCCACACTACACCACAAACCAACTCTGGAA
TACAGTCTTTTCCCATACCTCCCCAGTCCCCCGCTTATGAACCAAACCTCTTTGATGGTCCAGAATCACAGTTT
TGCCCAAACCAAAGCTTAGTTTCCCTTCTTGGTGATCAAAGGGAATCTGAGAATATTGCTAATCCCATGCAGACT
TCCTCCAGTGTTCAGCAGCAAATGATGCTCACTTGCACAGCTTCAGCATGATGCCAGCAGCGCTGTGAGGCC
ATGGTGGGGCACGAGATGGCCTCTGACTCTTCAAACACTTCACTGCCATTCTCAAACATGGGAAATCCAATGAAC
ACCACACAGTTAGGGAAATCACTTTTTTCACTGGCAGGTGGAGCAGGAAGAAAGCAAATTGGCAAATATTTCCCAA
GACCAGTTTCTTCAAAGGATGCAGATGGTGACACGTTTCTTCATATTGCTGTTGCCCAAGGGAGAAGGGCACTT
TCCTATGTTCTTGCAAGAAAGATGAATGCACTTCACATGCTGGATATTAAAGAGCACAATGGACAGAGTGCCTTT
CAGGTGGCAGTGGCTGCCAATCAGCATCTCATTGTGCAGGATCTGGTGAACATCGGGGCACAGGTGAACACCACA
GACTGCTGGGGAAGAACACCTCTGCATGTGTGTGCTGAGAAGGGCCACTCCCAGGTGCTTCAGGCGATTGAGAAG
GGAGCAGTGGGAAGTAATCAGTTTGTGGATCTTGAGGCAACTAACTATGATGGCCTGACTCCCCTTCACTGTGCA
GTCATAGCCCAATGCTGTGGTCCATGAACCTCAGAGAAATCAACAGCCTCATTACCTGAAGTTGAGGAGCTT
TTACTGAAGAATAAGAGTCTGGTTGATACCATTAAAGTGCCTAATTCAAATGGGAGCAGCGGTGGAAGCGAAGGAT
CGCAAAGTGGCCGCACAGCCCTGCATTTGGCAGCTGAAGAAGCAAATCTGGAACCTATTGCGCTCTTTTTGGAG
CTGCCCAGTTGCCTGTCTTTTGTGAATGCAAAGGCTTACAATGGCAACACTGCCCTCCATGTTGCTGCCAGCTTG
CAGTATCGGTTGACACAATTAGATGCTGTCCGCTGTTGATGAGGAAGGGAGCAGACCCAAGTACTCGGAACCTG
GAGAACGAACAGCCAGTGCATTTGGTTCCCGATGGCCCTGTGGGAGAACAGATCCGACGTATCTGAAGGGAAAG
TCCATTCAGCAGAGAGCTCCACCGTATTAGCTCCATTAGCTTGGAGCCTGGCTAGCAACACTCACTGTGAGTTAG
GCAGTCTGTATCTGTACATAGACCAATTTGCCTTATATTGGCAAATGTAAGTTGTTTCTATGAAACAAACAT
ATTTAGTTCACTATTATATAGTGGGTATATTTAAAGAAAAGAAAGAAAATATCTAATTTCTCTTGGCAGATTG
CATATTTCAACCCAGGTATCTGGGATCTAGACATCTGAATTTGATCTCAATGGTAACATTGCCTTCAATTAACA
GTAGCTTTTGAAGTAGGAAAGGACTTTGATTTGTGGCACAAAACATTATTAATATAGCTATTGACAGTTTCAAAGC
AGGTAAATTGTAATGTTTCTTTAAGAAAAAGCATGTGAAAGGAAAAAGGTAAATACAGCATTGAGGCTTCATTT
GGCCTTAGTCCCTGGGAGTTACTGGCGTTGGACAGGCTTCAGTCATTGGACTAGATGAAAGGTGTCCATGGTTAG
AATTTGATCTTTGCAAACCTGTATATAATTGTTATTTTTGTCTTAAAAATATTGTACATACTTGGTTGTTAACAT
GGTCATATTTGAAATGTATAAGTCCATAAAATAGAAAAGAACAAAGTGAATTGTTGCTATTTAAAAAATTTTACA
ATTCTTACTAAGGAGTTTTTATTGTGTAATCACTAAGTCTTTGTAGATAAAGCAGATGGGGAGTTACGGAGTTGT
TCCTTTACTGGCTGAAAGATATATTGCAATTGTAAAGATGCTTTTTCTCATGCATTGAAATTATACATTATTTGT
AGGGAATTGCATGCTTTTTTTTTTTTTTCTCCCGAGACAGGGTCTTGCTCTGGCGCCCAGGCTGGAGTACAGTGG
CATGATCTTGGCTCACTTCAGCCTTGACTTGGGCTCAAGTGATCCTCCTACCTGAGCCTTCTGAGTAACTGGGAC
TACAGGTGTGCACTCCTCGCCTGGCTAATTTTTTTATTTTTTGTACAGGCAGGATCTTGCCACCTTGCCAGGCTG
GTCTTGAACCTCTGAGCTCATGCCATCTGCCTGCCTTAGTCTCCCAAAATGCTGGGATTACAGGAGTGAGCCACC
ATGCCCCGCTGGCAGTTGCATGGAAGAGAACACCTCTTTATGGCTTACCCTCTAGAATTTCTAATTTATGTGTTT
TGTTGAAATTTTTGTTTTTTTTTACCTTTATTGAAACAACAAAAAGTCAGTATTGAAACATATCTTCTGTTTTCTG
TTGTCAAATGATGATAATGTGCCATGATGTTTTATATATATCATTCAGAAAAAGTTTTATTTTTTAATAACATTC
TATTAACATTATTTGCTTGCCGCTGGCATGCCTGAGGAATGTATTGGCTTTGATTACACACTAAGTTTTTGTGA

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FIGURE 1203B

ATAAATTTGACTCATTAAAAACCTTTTTTTTTTAAAAAAAAAAAAAAAAAGAAATCTCATTAGTGAACCTTATCTTTG
CAGCTGAGTACTTAAATTCTTTTTAAAAAGATACCCTTTGGATTGATCACATTGTTTGACCCAGTATGTCTTGTA
GACACGTTAGTTATAATCACCTTGTATCTCTAAATATGGTGTGATATGAACCAGTCCATTACATTGGAAAAACT
GATGGTTTTAAATAAACTAATTCATAATAAAAAAAAAAAAAAAAAA

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FIGURE 1204

MIVDKLLDD\$RGGEGLRDAAGGCGLMTSPLNLSYFYGASPPAAAPGACDASCSVLGPSAPGSPGSDSSDFSSASS
VSSCGAVESRSRGGARAERQPVEPHMGVGRQQRGPFQGV RVKNSVKELLHIRSHKQKASQAVDDFKTQGVNIE
QFRELKNTVSYSGKRKGPDSLSDGPACRKPALLHSQFLTPPTPGESMEDVHLNEPKQESSADLLQNIINIKN
ECSPVSLNTVQVSWLNPVVVPQSSPAEQCDFHGGQVFSPPQKCQPFQVRGSQQMIDQASLYQYSPQNQHVEQQP
HYTHKPTLEYSFPPIPPQSPAYEPNLFDPESQFCPNQSLVSLLDQRESENIANPMQTSSSVQQQND AHLHSFS
MMPSSACEAMVGHEMASDSSNTSLPFSNMGNPMNTTQLGKSLFQWQVEQEESKLANISQDQFLSKDADGD TFLHI
AVAQGRRALSYVLARKMNALHMLDIKEHNGQSAFQVAVAAHQHLIVQDLVNIGAQVNTTDCWGRTPLVCAEKGH
SQVLQAIQKGA VGSNQFVDLEATNYDGLTPLHCAVIAHNAVVELQRNQPHSPEVQELLLKNKSLVDTIKCLIQ
MGA AVEAKDRKSGRTALHLAAEEANLELIRLFLELPSCLSFVNAKAYNGNTALHVAASLQYRLTQLDAVRLLMRK
GADPSTRNLENEQPVHLVPDGPVGEQIRRIKKGKSIQQRAPPY

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FIGURE 1205

GGCCGCGCGTCCCAGAGAGCCAGCCCCGGCCGCGTTCGCGGGGAAGTGCCGCCTGGTGGGGTCACGGCGCCTGAA
GCCCACGTGCGCCGCCGAGCCGAGGTGGCTCGAGCGCGGCGGCTGACAGCACAGCCGCGCTGAGCTGCCTCCC
GCGCTCCTCCCCGAGGAAAGGATTTTGATTTCAAAGAAAGGAAGGAAGGAAGGACAACTCCCAGCTTCCCCGTCC
CGCCCTCCCCGCTCCGAGGGCCGCGCCAGGCCATGCCAAGAAGGCGGCGGCGGCGGCGGAACCAGCAGAAGGGAC
TTTCCTGGCAGCCCCGGCGACGAGGAGCGCGGACAGTGAGTTTGCTCTGCCCCGGTTCATGGTTTCCTGCAAGCCCT
CTAGGAGGCCGAAAGCTGCAGCCCCCTCCCCTTGCCCCGAAGAGCCTTCCGCGTTCTCTCGCCCTCGGGCCACCC
CGCGCCGCCCCGGGCTCCCGCCGCCGACGCCAGTGCCCTCTGCCCCGCGGCGGTGGATGGCATGATGGTGCGGGGA
AGGCACCGCGGCCTTGGCCAGCTGAGTCGCGACGGCCGCCGGGGCGGCGGCAGTGGCCGCGGCAGCGGCGGTGGT
AGCGGGCTCCCCAGCGGCATGCCAGTGCCCCCGGGCGCGATGCTAGCGGCAGCGCCGGGAAGCCCACTGGCGA
GGCGGCTTCTCCGGCTCCTGCGAGCGCCATCGGCGGGGCCAGCTCGCAGCCGCGGAAGAGGCTGGTATCCGTCTG
CGACCACTGCAAGGGCAAGATGCAGCTGGTGGCTGACCTGCTGCTGCTGTCGAGCGAGGCGCGGCCCGTGTCTT
CGAGGGCCCCGCTCCTCTGGTGCCGGCGCCGAGTCTTCGAGCAGTGCCGGGACACCATCATCGCGCGCACCAA
GGGGCTCTCCATCCTCACCCACGACGTGCAGAGCCAGCTCAACATGGGCCGCTTCGGGGAGGCGGGGGACAGCCT
GGTGGAGCTGGGCGACCTGGTGGTGTGCTGACCGAGTGCTCGGGCCACGCGGCCTATCTGGCCGCTGTGGCCAC
GCCGGGCGCCAGCCCGCGCAGCCGGGCCTGGTGGACCGCTACCGCGTGACGCGATGCCGCCACGAGGTGGAGCA
GGGTTGCGCCGTGCTGCGCGCCACGCCGCTGGCCGACATGACGCCGCAGCTGCTGCTGGAGGTGTGCGAGGGCCT
GTCGCGCAACCTCAAGTTCCTGACGGACGCGTGCGCCCTGGCCAGTGACAAGTCACGGGACCGCTTTTCGCGGGA
GCAGTTCAAGCTGGGCGTCAAGTGATGAGCACCAGCGCGTCGGCGCTGCTGGCCTGCGTGCGCGAGGTGAAGGT
GGCGCCAGTGAGCTGGCGCGCAGCCGCTGTGCGCTCTTCAGCGGGCCCCCTGGTGCAGGCAGTGAGCGCCCTGGT
AGGCTTCGCCACCGAGCCGAGTTCCTGGGTGCGCGGCAGCTGTGAGCGCCAGGGCAAGGCGGTGCAGACCGC
CATCCTGGGCGGCGCCATGAGCGTGGTGTGCGCCTGCGTGCTCCTGACCCAGTGCCCTCAGGGATCTGGCGCAGCA
CCCCGACGGGGGCGCCAAGATGTCGGACCACAGGGAGAGGCTGAGGAACTCGGCCTGCGCCGTGTCTGAAGGCTG
CACCTGCTATCTCAGGCTTTAAGGGAGAGGTCTTCGCCCAGGACTTTACCGCCAGTGAATTCCAATTCTGTGAA
TTAGCACCCACCCCCATACCCCCTTCTTCCACCCCCAGACTAAAGGAAGATACTTACTCTCTGCCCCCTCTCCATT
TATACCAAAGAAATCATAGGTGAAACCCCTACCCTCCCCAACGTAAATGCTCGAGAGGAATCTTCCACAAGGC
AGGGCCATGCACGCAACCTGCACACGCACTTGAGGGGCCAGGTGTCTCTCCACCAGCCCCCATGCAGTAGGGAC
TGGAAGATATGTCATCTGCTGGTTGTGTTATCACTCCACCCCCCTACCCAGCCCGTCTTCGGAATTTCTCAAC
TAAATTTTATTATTGGGCAGGAAGGAGTTCATGGGTTCAATTTTATTTTGTTTTTTGTGTTTTTAATTAAAGAA
AGGTTACCTCAGTTTTCACTCCTTAGACAIGGATGTAGCTACCTTTTTTTGTATGTCTTTTTTTTTTAAGCAAT
CGTGTTGAATTAGAGTATACTTGGTGAGGAAAGAGTATGAATTTGCCATGTGATTTGCAAATGGGGGGAAGCTA
CTGTGAGCGTGTGTTTTTTAATTTACACTATAGAGTGATTTTTTTTTCCCCAACGTCAAGTTTTTACCTTGCA
GTACTGGAGTATTTATTTTATCTATTAAAATGTTATGTTTCTCAGAAAAAACCTCGTGGCGAATCTTGGCCTC
GAGGGCCAAAT

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FIGURE 1206

MASGSAGKPTGEAASPAPASAI GGASSQPRKRLVSVCDHCKGKMLVADLLLLSSEARPVLFEGPASSGAGAESF
EQCRDTIIA¹RTKGLSILTHDVQSQLNMGRFGEAGDSLVELGDLVVSLTECSAHAAYLAAVATPGAQPAQPGLVDR
YRVTRCRHEVEQGC AVL RATPLADMT PQLLLEVSQGLSRNLKFLTDACALASDKSRDRFSREQFKLGVKCMSTSA
SALLACVREVKVAPSELARSRCALFSGPLVQAVSALVGFATEPQFLGRAAAVSAEGKAVQTAILGGAMSVVSACV
LLTQCLRD LAQH PDGGAKMSDHRERLRNSACAVSEGCTLLSQALRERS SPRTLPPVNSNSVN

GGCACGAGGGCTGCTTGACACTCTGAATTGGGCTATTCCAGGTAGTGTGCTCAAAGTTGAAACCGCATACAGCAC
ACTCAAGTTTGCATCAGACTGGGAAGCGAACTTAAGCCAGCGGTGCGTGGCCCAGGAGTGGGAAAGGAAATGGAT
GCCTGAAGTGGAAAGAGGTGGTGCAGAGGGGGCACCGCCCCATGCTGCCCTGCTTCCAAGTCTGCGCATAGGGGGC
GGCAGGGGCGGTGATCTCTACACCTTCCACCCCCCGCCGGGGCTGGCTGCACCTATCGCTTGGGCCACAGGGCC
GACCTGTGTGATGTGGCCCTGCGGCCCCAGCAGGAGCCTGGCCTCATCTCTGGGATCCACGCCGAAGTGCATGCC
GAGCCCCGGGGTGATGACTGGAGGGTCAGCCTGGAAGACCACAGCAGCCAAGGTACTTTGGTCAATAATGTCCG
CTCCCAAGAGGTCACAGGCTGGAATTGAGTGTGGAGACCTCCTGACCTTTGGCCCTGAAGGGCCCCCAGGAACC
AGCCCCTCGGAGTTCTACTTCATGTTCCAACAAGTACGAGTCAAGCCTCAGGACTTTGCTGCCATTACCATCCCA
CGGTCTAGGGGAGAAGCCCCGGGTGGGGCTGGTTTCCGGCCTATGCTGCCCTCCCAGGGGGCTCCACAGCGGCCT
CTCAGCACCTTCTCCCCCTGCCCCCAAGGCCACACTGATCCTAAACTCCATAGGCAGCCTCAGCAAGCTCCGGCCC
CAGCCCCCTACCTTCTCCCCCTAGTTGGGGTGGACCAAAGAGCCTGCCTGTTCCCGCCCCACCTGGGGAAGTGGGG
ACCACGCCTTCTGCTCCACCCCAACGCAATCGGAGGAAATCTGTTTACCAGAGTGTGGCGGAACTGGATGATGAG
AGTGAGCCTCTTGAGAACCCGCCACCGGTCTTATGGAGCCCAGGAAGAAACTCCGTGTAGACAAAGCCCCACTG
ACTCCCACTGGAAGTTCGACGTGGCCGTCTTCGGAAGTACCCAGTGAGCGCTCCCATGGCTCCCCCTGCAGTTGGG
GGCGGGGAGCCCTGTGCAGCTCCTTGTGTGCTGCCCTGCCCCAGGAAGAGACAGTGGCCTGGGTTCAAGTGTGATGGC
TGTGACGTCTGGTTCCATGTGGCCTGTGTTGGCTGCAGCATCCAGGCTGCCAGGGAGGCCGACTTCCGATGCCCCA
GGGTGCCGGGCTGGCATTACAGACCTAAAGTCCACCGCCAAGGCACCATCGGACACACCTGCCCATGAGTAGACAC
AGCAGCGAGCAAATAGGTCTGATAAATACCCCCCTTCCCTTCCCTCCCAGGAGGGAATGACTACAGGGAAGAAG
GATGGATTGATGTGGACTCATTACAGGGCTGGAGCAGACCCTGGTGGCCAAGACAGAAGAGATGGTTTCTGCCA
AAGATATTGCCACCTCCAGGAAATTGCCAGTGAGCTGGAAGTTCCCACTATTACAAGCCATAAGGCCATGTTGCC
ATGGACACCAGAATATCTGTAGTCAGAGCACCTATCAGTTGCAAAGCCATGCCTGCAACCGATGGAAAATGTAA
GAGGGAGTTCTTAAGGTTCTTGATGGCATCACCAAGGCATTCTGGGAAAACCTAGGGCCTGGCCCCAAAACCTC
CTACTCTGTGGCTAGTCTGCTGCCAACAAAATCGTAGCGACCTGGCTTTTACAGCTTTGCTTTTATTTCCAA
GTCAAGGACAAGCCGCTTCATTCACTCCTGGGCATTTACTCTTCTTGTGGGTCTGTGATATTCCTTGCTTTCCAG
GGAGAATGTGCTTGGCAAGGTCTGGAGAATAATTAGAATCTTAGGGGAAGGGGAGAGATGGAAATACAAACCT
GCTTACTGGAAGGTGCAAATATATGGGTTGAGCTGGAGGTAGGAATACAGGTAATTAAGGTTTCTGGTTTAAGG
GAAAACAGATCTATTGCCATTTAAATAAGGTAACCTGGGATTTGGTTAAGTTCACAAAGTTAGCAGAAGATTTATT
TACAGGCTTCACCTGTACTGTGAGGGCAAGAGAAAGCCTGGTAAACCAGCTACAGCAGTTTACCAGTGTGATGGC
TGTGACACAGCTCCACTCCACGGGTGGACACAGCAGAGGGCAACTGGGCTGGCCTGGTTCAAGTGTGAATCÀAACCC
GCTTAACCCACACATGGTACATGTGATTTTCTTTTGTGAGCCTTACACCAAGCCAAACTATTGTCAAAGCATCAT
TTCTATAGAAAATAAAGCCTTATCTTGACCTGTTCTATTAAAAAAAAAAAAAAAAAAAAA

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FIGURE 1208

MLPCFQLLRIGGGRGGDLYTFHPPAGAGCTYRLGHRADLCDVALRPQQEPGLISGIHAELHAEPRGDDWRVSLED
HSSQGTILVNNVRLPRGHRLELSGDLLTFGPEGPPGTSPSEFYFMFQQVRVKPQDFAAITIPRSRGEARVGAGFR
PMLPSQGAPQRPLSTFSPAPKATLILNSIGSLSKLRPQPLTFSPSWGGPKSLPVPAPPGEVGTTPSAPPQRNRRK
SVHRVLAELDDSEPLENPPPVLMEPRKKLRVDKAPLTPTGNRRGRPRKYPVSAPMAPPAVGGGEPCAAPCCCLP
QEETVAWVQCDGCDVWFHVACVGCSIQAAREADFRCPGCRAGIQT

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FIGURE 1209

GGCAGCCGTCTGTGCCACCCAGAGCCGGCGGGCCGCTAGGTCCCCGGAGACCCTGCT**ATG**GTGCGTGCGGGCGCC
GTGGGGGCTCATCTCCCCGCGTCCGGCTTGATATCTTCGGGGACCTGAAGAAGATGAACAAGCGCCAGCTCTAT
TACCAGGTTTTAAACTTCGCCATGATCGTGTCTTCTGCACTCATGATATGGAAAGGCTTGATCGTGCTCACAGGC
AGTGAGAGCCCCATCGTGGTGGTGCTGAGTGGCAGTATGGAGCCGGCCTTTCACAGAGGAGACCTCCTGTTCCCTC
ACAAATTTCCGGGAAGACCCAATCAGAGCTGGTGAAATAGTTGTTTTTAAAGTTGAAGGACGAGACATTCCAATA
GTTACAGAGTAATCAAAGTTCATGAAAAAGATAATGGAGACATCAAATTTCTGACTAAAGGAGATAATAATGAA
GTTGATGATAGAGGCTTGTAACAAGAAGGCCAGAACTGGCTGGAAAAGAAGGACGTGGTGGGAAGAGCAAGAGGG
TTTTTACCATATGTTGGTATGGTCACCATAATAATGAATGACTATCCAAAATTCAAGTATGCTCTTTTGGCTGTA
ATGGGTGCATATGTGTTACTAAAACGTGAATCC**TAA**AATGAGAAGCAGTTCCTGGGACCAGATTGAAATGAATTC
TGTTGAAAAAGAGAAAACTAATATATTTGAGATGTTCCATTTTCTGTATAAAAGGGAACAGTGTGGAGATGTTT
TTGTCTTGTCCAAATAAAAGATTACCCAGTAAAAAAAAAAAAA

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FIGURE 1210

MVRAGAVGAHLPASGLDIFGDLKKMNKRQLYYQVLNFAMIVSSALMIWKGLIVLTGSESPIVVVLSGSMEPAFHR
GDLLFLTINFREDPIRAGEIVVFKVEGRDIPIVHRVIKVHEKDNGDIKFLTKGDNNEVDDRGLYKEGQNWLEKKDV
VGRARGFLPYVGMVTIIMNDYPKFKYALLAVMGAYVLLKRES

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FIGURE 1211

TCCCTGTCCTGCGCCCGCGCGCCCCGGGAGCCTACCCAGCACGCGCTCCGCGCCCACTGGTTCCCTCCAGCCGCC
GCCGTCCAGCCGAGTCCCCACTCCGGAGTCGCCGCTGCCGCGGGGACATGGTCCTCTGCGTTCAGGGGTGAGCAC
CCCCTTGTAAGCTCAGGGCTACTGTTGGGTGTCAGGGAACAAAGTTTTAGACTGCTGCGCTCCAAAGCGGGCACA
CACATGTACCTAGAACACACCAGCCACTGTCCCCACCATGATGATGACACAGCCATGGACACACCCCTGCCGAGA
CCTCGTCCCTTGCTGGCTGTGGAGCGGACTGGGCAGCGGCCCTGTGGGCCCCGTCCCTGGAAGTGCCAAGCCA
GTCATGCAGCCCTTGCCCTGCTGGGGCCTTCCTCGAGGAGGTGGCAGAGGGTACCCAGCCAGACAGAGAGTGAG
CCAAAGGTGCTGGACCCAGAGGAGGATCTGCTGTGCATAGCCAAGACCTTCTCCTACCTTCGGGAATCTGGCTGG
TATTGGGGTTCCATTACGGCCAGCGAGGCCCGACAACACCTGCAGAAGATGCCAGAAGGCACGTTCTTAGTACGT
GACAGCACGCACCCAGCTACCTGTTACGCTGTGAGTGAACCACTCGTGGCCCCACCAATGTACGCATTGAG
TATGCCGACTCCAGCTTCCGCTCTGGACTCCAAGTCTGTCCAGGCCACGCATCCTGGCCTTTCCGGATGTGGTC
AGCCTTGTCAGCACTATGTGGCCTCCTGCACTGCTGATACCCGAAGCGACAGCCCCGATCCTGCTCCACCCCG
GCCCTGCCTATGCCTAAGGAGGATGCGCCTAGTGACCCAGCACTGCCTGCTCCTCCACCAGCCACTGCTGTACAC
CTAAACTGGTGCAGCCCTTTGTACGCAGAAGCAGTGCCCGCAGCCTGCAACACCTGTGCCGCTTGTTCATCAAC
CGTCTGGTGGCCGACGTGGACTGCCTGCCACTGCCCCGGCGCATGGCCGACTACCTCCGACAGTACCCCTTCCAG
CTCTGACTGTACGGGGCAATCTGCCACCCTCACCCAGTCGCACCCTGGAGGGGACATCAGCCCCAGCTGGACTT
GGGCCCCCACTGTCCCTCCTCCAGGCATCCTGGTGCCTGCATACCTCTGGCAGCTGGCCCAGGAAGAGCCAGCAA
GAGCAAGGCATGGGAGAGGGGAGGTGTCACAACTTGAGGTAAAATGCCCCAGGCCGCATGTGGCTTCATTA
TACTGAGCCATGTGTGAGAGGATGGGAGACAGGCAGGACCTTGTCTACCTGTGGGCTGGGCCCCAACCTCCAC
TCGCTTGCCCTGCCCTGGCCACCTGAACTGTATGGGCACTCTCAGCCCTGGTTTTTCAATCCCCAGGGTCGGTAGG
ACCCCTACTGGCAGCCAGCCTCTGTTTCTGGGAGGATGACATGCAGAGGAAGTGAATCGACAGTGACTAGTGAC
CCCTTGTTGAGGGGTAAGCCAGGCTAGGGGACTGCACAATTATACACTATTTATTTATTTATTTCTCCTTGGGGTT
GGTGTGAGGGGCAAACCAACCCACCTCTATGCCCTGAGCCCTGGTAGTCCAAAGACCCCACTCTGCCCTGGCT
TCTCTGGTTCTTCCCTGTGGAAAGCCCATCCTGAGACATCTTGCTGGAACCAAGGCAATCCTGGATGTCTTGGA
CTGACCCACCCCTCTGTGAATGTGTCCACTCTTCTGCCCCAGCCATATTTGGGGAGGATGGACAATACTACAAT
AGGTAAGAAAAATGCAGCCGGAGCCTCAGTCCCCAGCAGAGCCTGTGTCTCACCCCTCACAGGACAGAGCTGTAT
CTGCATAAAGCTGGTCTCACTGTGGCGCAGGCCCGGGGGGAGTGCCTGTGCTGTGAGGAAAAGGGGGTGCTGGT
TTGAGGGCCACCCTGCAGTTCTGCTAGGTCTGCTTCCCTGCCAGGAAGGTGCCTGCACATGAAAGGAGAGAAAT
ACACGCTCTGATAAGACTTCATGAAATAATAATTATAGCAAAGAACAGTTTGGTGGTCTTTTCTCTTCCACTGATT
TTTCTGTAATGAACATTATACCTTTATTACCTCTTTATTTTATTACCTCTATAATAAAATGATACCTT

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FIGURE 1212

MDTFLPRPRLLAVERTGQRPLWAPSLELPKPVMOPLPAGAFLEEEVAEGTPAQTESEPKVLDPEEDLLCIAKTFS
YLRESGWYWGSITASEARQHLQKMPEGTFLVRDSTHPSYLFTLSVKTTTRGPTNVRIEYADSSFRLDSNCLSRPRI
LAFPDVVS LVQHYVASCTADTRSDSPDPAPTPALPMPKEDAPSDPALPAPPATAVHLKLVQPFVRRSSARSLQH
LCRLVINRLVADVDCPLPRRMADYLRQYPFQL

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FIGURE 1213A

ATCTGCTGGCATTTCCTGCAGCCAGGCCCGCGCCGCGCAGTGAGCCCCCGCGCGCCCGGCCGGCCCGGAGCACCG
AGCTCGCGGCACGGTAGGAGAAGCCCCGAGCGCCACAGCATGAAGGAGGAGGCCTTCCTCCGGCGCCGCTTCT
CCCTGTGTCCACCTTCCTCCACCCTCAGAAAGTCGACCCCCGGAAGCTCACCCGGAACCTTGCTCCTCAGCGGAG
ACAATGAGCTCTACCCACTCAGCCCAGGGAAGGACATGGAGCCCAACGGCCCGTCGCTGCCAGGGATGAAGGGC
CCCCGACCCCAAGCTCTGCCACGAAGGTGCCACCGGCAGAGTACAGGCTGTGCAACGGGTGAGACAAGGAATGTG
TGTCACCCACCGCCAGGGTCACCAAGAAGGAGACTCTCAAGGCGCAGAAGGAGAACTACCGGCAGGAGAAGAAGC
GCGCCACACGGCAGCTGCTCAGCGCTCTGACAGACCCAGCGTGGTCATCATGGCTGACAGCCTGAAGATCCGCG
GCACCTGAAGAGCTGGACCAAGCTGTGGTGCGTGCTGAAGCCGGGGGTGCTGCTCATCTACAAGACGCCCAAGG
TGGGCCAGTGGGTGGGCACGGTGTGCTGCACTGCTGCGAGCTCATCGAGCGGCCCTCCAAGAAGGACGGCTTCT
GCTTCAAGCTCTTCCACCCGCTGGATCAGTCCGTCTGGGCCGTGAAGGGCCCCAAAGGTGAGAGCGTGGGCTCCA
TCACACAGCCCCCTGCCAGCAGCTACCTGATCTTCAGGGCCGCTCCGAGTCAGATGGTCGCTGCTGGCTGGACG
CCCTGGAGCTGGCCCTGCGCTGCTCTAGCCTACTGAGACTGGGCACCTGCAAGCCGGGCCGAGACGGGGAGCCAG
GGACCTCGCCAGACGCATCACCTCATCGCTCTGTGGGCTGCCAGCCTCAGCCACCGTCCACCCAGACCAAGACC
TGTTCCCACTGAACGGGTCTTCCCTGGAGAACGATGCATTCTCAGACAAGTCGGAGAGAGAGAACCCTGAGGAGT
CAGATACCGAGACCCAGGACCATAGCCGGAAGACGGAGAGTGGCAGCGACCAGTCAGAGACCCCTGGGGCCCCGG
TGCGGAGAGGGACCACCTATGTGGAGCAGGTCCAGGAGGAGCTGGGGGAGCTGGGCGAGGCGTCCCAGGTGGAGA
CAGTGTGAGAGGAGAACAAGAGTCTGATGTGGACCCTGCTGAAGCAGCTACGGCCAGGCATGGACCTGTCCCGCG
TGGTGTACCCACGTTTCGTACTGGAGCCGCGCTCCTTCTGAACAAGCTCTCCGACTACTACTACCACGCAGACC
TGCTCTCCAGGGCTGCGGTGGAGGAGGATGCCTACAGCCGCATGAAGCTGGTGTGCGGTGGTACCTGTCTGGCT
TCTACAAGAAGCCCAAGGAATCAAGAAGCCGTACAACCCCATCCTGGGGGAGACCTTCCGCTGCTGCTGGTTCC
ACCCGCAGACTGACAGCCGCACATTCTACATAGCAGAGCAGGTGTCCCACCACCCGCCCCGTGTCTGCCTTCCACG
TCAGCAACCGGAAGGACGGCTTCTGCATCAGTGGCAGCATCACAGCCAAGTCCAGGTTTTATGGGAACCTCGCTGT
CGGCGCTGCTGGACGGCAAAGCCACGCTCACCTTCTGAACCGAGCCGAGGATTACACCTTACCATGCCCTACG
CCCCTGCAAAGGAATCCTGTATGGCACGATGACCTTGGAGCTGGGTGGGAAGGTCACCATCGAGTGTGCGAAGA
ACAACCTCCAGGCCAGCTGGAAATTCAAACCTCAAGCCCTTCTTCGGGGGTAGCACCAGCATCAACCAGATCTCGG
GAAAGATCACGTCGGGAGAGGAAGTCTGGCGAGCCTCAGTGGCCACTGGGACAGGGACGTGTTTATCAAGGAGG
AAGGGAGCGGAAGCAGTGCCTTTTTCTGGACCCCGAGCGGGGAGGTCCGCAGACAGAGGCTGAGGCAGCACACGG
TGCCGCTGGAGGAGCAGACGGAGCTGGAGTCCGAGAGGCTCTGGCAGCACGTCACCAGGGCCATCAGCAAGGGCG
ACCAGCACAGGGCCACACAGGAGAAGTTTGCCTGGAGGAGGCACAGCGGCAGCGGGCCCCGTGAGCGGCAGGAGA
GCCTCATGCCCTGGAAGCCGAGCTGTTCCACCTGGACCCCATCACCCAGGAGTGGCACTACCGATACGAGGACC
ACAGCCCCCTGGGACCCCTGAAGGACATCGCCAGTTTGAGCAAGACGGGATCCTGCGGACCTTGCAGCAGGAGG
CCGTGGCCCCGACAGCACCTTCTGGGCAGCCAGGGCCAGGCACGAGAGGTCTGGCCAGACCAGCGGCTTC
GCAAGGCCAGCGACAGCCCTCCGGCCACAGCCAGGCCACGGAGAGCAGCGGATCCACGCCTGAGTCTGCCAG
AGCTCTCAGACGAGGAGCAGGATGGTGACTTTGTCCCTGGCGGTGAGAGCCCATGCCCTCGGTGCAGGAAGGAGG
CGCGGCGGCTGCAGGCCCTGCACGAGGCCATCCTCTCCATCCGAGAGGCCCAGCAGGAGCTGCACAGGCACCTCT
CGGCCATGCTGAGCTCCACGGCACGGGCAGCACAGGCACCGACCCAGGCCTCCTGCAGAGCCCCCGATCCTGGT
TCCTGCTCTGCGTGTTCTTGGCGTGTGAGCTGTTTCAATTAACCATCCTCAAATAGGAGCCCTGGGGGCAGAGCT
CCTGGCCAGTCCCAGGCCCTCCCTCCCAGGCACCCAGCACTTTAAGCCTGCTCCATGGAGGCAGAGAGGCCCGGC
AAGCACAGCCACTGTGACGGGGAGTCCAGGCGCAGGAGGGACCCGGGGCCACAAGGCGCTGCGGGCCAGGTGTG
CTGGGCCCCCTCTCAGGGGCACTGGCCTCTCTGCAGGGCCTTCCGCCCAGCGCTGGCCTTAATGCTAAAGCCAAAT
GCAGCTTCTGCTGTGCGACGCACTCCTGGCCATCTTGCCGTGTACCCCTGTCCGGCCTCCACTTGCCATGGGG
GATGGATGGATTTAGGGTGGGAGGGCCTGTGGGGGGCCCTGGACAGTCACACCCAGCAGCAGTGAAGTGGGCAGGT
TTGGAGGAGCAGCCAGGGAGCCCCGAGTGGCCCAGGAGTCCCCCACACAGATGCATAGGCCTGCCTTCCGGA
GACCTGTCCACATTGCCGGGACCACCCTGGTGGGGCCACTGGTGGGTGCCAGGGACAGGTTAGGGCCACTCTGG
GGAAGGCATTTTGGTTTTTTTATTCCACGCTGTGCTGTTTGGATGGGAGCCCCACAGAGGCAGGTCTGGAACCAC
CCCACCCACACCTGGACGCTCGCTCTGGTGGGGGCACACGCAGGTGGAGGTGGTTGTGGGTGCAGGTGTGTGC
AGGGGTGTGGGGGGCGCAGGGGTGTGGCTTAGCTGGCCCCGCACCCAGGCCGGGGAGGCTCAAGTTCGCCACTTT
ACTCAGACCGATGCACAGTCTTCCATTTTACACTTTTTTAATAAACATAATTGCAATATTTTAGGTGGGCTGCG

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FIGURE 1213B

AGCTGCAGTCAGCCTTCACGTCTGGCCTCAGTCCCCGTGTCAGTGCCGCTCTGCGTGTGCGTGTGCGCGTGTGTG
AGCCTCTACACATATATATACGTACAGAGCCTTAAACCACATCGTGGCGGTGCCGTCTGAGCTGTAGCGGGTGGC
TTTGTTTCCAGTTTTTGTACCCGTGTCCTTGTCTCCCCCTCCTCCCCATCTGGGGATGTGTCTGTGTTCCACACC
TTGAAATAAACAGACACATACGTGTTCTCTTAAAAAAAAAAAAAAAAAAAA

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FIGURE 1214

MKEEAFRRRFSLCPPSSTPQKVDPRKLTRNLLLSGDNELYPLSPGKMEPNGPSLPRDEGPPTPSSATKVPPAE
YRLCNGSDKECVSPTARVTKKETLKAQKENYRQEKKRATRQLLSALTDPSVIMADSLKIRGTLKSWTKLWCVLK
PGVLLIYKTPKVGQWVGTVLLHCCELIERPSKKDGFCKFLFHPLDQSVWAVKGPKGESVGSITQPLPSSYLIFRA
ASESDGRCWLDALALRCSSLLRLGTCKPGRDGEPTSPDASPSSLCGLPASATVHPDQDLFPLNGSSLENDALF
SDKSERENPEESDTETQDHSRKTESGSDQSETPGAPVRRGTTYVEQVQEELGELGEASQVETVSEENKSLMWTL
KQLRPGMDLSRVVLPFTVLEPRSFNLKLSDYHHADLLSRAAVEEDAYSRLMKLVLRWYLSGFYKKPKGIKKPYNP
ILGETFRCCWFHPQTDSTRFYIAEQVSHHPPVSAFHVSNRKDGFCSISGSIKSRFYGNLSALLDGKATLTFLN
RAEDYTTLMPYAHCKGILYGMTLELGGKVTIECAKNNFQAQLEFKLPFFGGSTSIQISGKITSGEEVLASLS
GHWDRDVFKEEGSGSSALFWTPSGEVRRQRLRQHTVPLEEQTELESERLWQHVTRAISKGDQHRATQEKFALEE
AQRQRARERQESLMPWKQFLHLDPIQEWYRYEDHSPWDPLKDIAQFEQDGILRTLQGEAVARQTTFLGSPGP
RHERSGPDQRLRKASDQPSGHSQATESSGSTPESCELSDEEQDGFVPGGESPCPRCKEARRLQALHEAILS
REAQQELHRHLSAMLSSTARAAQAPTPGLLQSPRSWFLLCVFLACQLFINHILK

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FIGURE 1215

GAATCTCTCGCGGGCAGCAGGGCGCGCGCTGCACGCACAGTACTAGGTCAGGTGGTGCTCCCGGGTGAGGAGCTG
CTCCTGCCGGAACAGGAGGACGCGGAAGGCCCTGGGGGTGCAGTGGAGCGACCGTTGAGCCTGA**ATG**CTAGAGCG
TGCTCGCGGGTGCGCGTTTGTATGCGGTCCGGGCCTTCGACGCTGTGGGGACCGCCTGCTGGTCACCAAGTGCGG
CCGCCTCCGTCACAAGGAGCCCGGCAGTGGAGGCGGCGGCGGTGTTTACTGGGTGGACTCTCAGCAGAAGCGGTA
TGTTCCAGTAAAAGGAGACCATGTGATTGGCATAGTGACAGCTAAATCTGGAGATATATTCAAAGTTGATGTTGG
AGGGAGTGAGCCAGCTTCTTTGTCTTACTTGTCAATTTGAAGGTGCAACTAAAAGAAACAGACCAATGTGCAGGT
TGGAGATCTCATCTATGGCCAGTTTGTGGTTGCTAATAAAGACATGGAACCAGAGATGGTCTGTATTGACAGCTG
TGGACGAGCCAATGGAATGGGTGTCATTGGACAGGATGGTCTGCTTTTTAAAGTGACTCTGGGCTTAATTAGAAA
GCTATTAGCTCCAGATTGTGAAATCATAACAGGAAGTGGGAAAACCTCTATCCACTGGAGATAGTATTTGGAATGAA
TGGAAGAATATGGGTTAAGGCAAAAACCATCCAGCAGACTTTAATTTTGGCAAACATTTTAGAAGCTTGTGAACA
CATGACGTCAGATCAAAGAAAACAGATCTTCTCCAGATTGGCAGAAAGT**TGAT**ATAGGTGGACTTTTTTACAGGT
CAGTTGAGGCAAAAACTATGGGTTTTTTTCAGGTGAACCTCCCCCATTTAAATACTCAGAAGATAAGGTGTGAAT
GTATGTATTATTAGAGTCCGAAAGTATTTTTATAAGTTACTGGTTTTACCCACGCTTTTGTGGGAGAGAAAATC
ATTGCAAAATCATTTTTTTTTGTTTCGGTACAATAAAGTTTACTAAAAACAAA

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FIGURE 1216

MLERARGCAFVCGPGLRRCGDRLLVTKCGRLRHKEPGSGGGGGVYWVDSQQKRYVPVKGDHVGIVTAKSGDIFK
VDVGGSEPASLSYLSFEGATKRNRPNVQVDLIYGQFVVANKDMEPEMVCIDSCGRANGMGVIGQDGLLFKVTLG
LIRKLLAPDCEIIQEVGKLYPLEIVFGMNGRIWVKAKTIQQTLILANILEACEHMTSDQRKQIFSRLAES

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FIGURE 1217

GGATTTTCCTTGGTCTTAAGATGGGTAGAAATGTGATGCGACACATGTCTGATGACTTAGGAAGTTATGTTTCTC
TTTCGTGTGATGACTTTTCTTCACAGGAATTAGAGATTTTCATTTGCTCCTTTTCTCCTCCTGGCTTCAAATGT
TTGTTGCAGAGGCAGTCTTTAAAAAGTTGTGTCTACAGAGCTCTGGCAGTGTTTCTTCTGAGCCACTCTCTCTTC
AGAAAATGGTATATTCTATTACCAGCCTTGGGGAAAACCTGGTGTGCTTGGGTCTGGAAAGATTAGGTGTCAA
AGAAAATAGGACAGCGGCCTTGTTTTGACTCTCAGAGAACCTTACTAATGCTGAATGGTACTAAACAAAACAAG
TCGAAGGGCTGCCAGAGTTACTAGACCTGAACCTTGCTAAATGTTCCCTCATCATTAAAAAATTGAAAAGAAGT
CAGAAGGAGAATTGTCATGTTCCAAGGAGAATTGCCCTCTGTAGTTAAAAAGATGAATTTTCACAAGACTAATC
TAAAAGGAGAAACAGCCCTGCATAGAGCTTGCTAAATAACCAAGTGGAGAAATTGATTCTTCTCTCTCTTTGC
CAGGAATAGACATCAATGTTAAAGACAATGCTGGCTGGACGCCTTTGCATGAAGCCTGTAAGTATGGCAACACAG
TGTGTGTCCAGGAAATTTTGCAACGTTGTCCAGAGGTAGATCTGCTCACTCAAGTGGACGGGGTGACTCCTTTGC
ATGATGCACTGTCAAACGGACATGTAGAAATTGGCAAGCTGCTACTACAGCATGGGGGCCAGTGCTTTTACAAC
AGAGGAATGCTAAGGGAGAATTGCCCTTGGATTATGTGGTTTACCTCAAATCAAAGAAGAACTGTTTGCTATTA
CAAAAATAGAAGATACAGTGGAGAACCTTTCATGCACAAGCAGAGAAACATTTTCATTACCAGCAACTTGAATTTG
GCTCCTTTTTTACTTAGTAGGATGTTGCTAAATTTTTGTTCAATTTTTGATTATCTTCAGAGTTCAATTTAGCTT
CCAAAGGGTTAACTCATCTAAATGAAGTCTTATGGCTTGTAAGAGTCATAAAGAAACCACAGTGTTTACACTG
ACTGGTTACTGGATCTTTATGCTGGAAATATAAAGACATTGCAGAACTCCACACATTCTTAAGGAAGTGCCTG
AGAATTTGAAAGTGTGCTCCTGGGGTACACACTGAGGCCTTGATGATAACATTGGAAATGATGTGTCGGTCAGTCA
TGGAGTTTTCAATGATGCTAGAAAGTATGGATTGACTTTCTAAATCTGTTGAGTTTGCATTGGTACTTACTGT
GGACTTCATAGCTTACTGACAGATAGTAATTTGATTTATTTATTGACAGACTTTGCAGCCTTGCTAAATTTTAAA
AGCATTTTTAAAAAACTTCTACAAAACCTCTAGTATGGGCTTCTGACTTTTTCCAGGGTGTAGAATTTGACTCAA
AAGTAAAAATAATTTTGTTTTAGTATATTCTACTTTTCAATTAATGTTTTTTTGTCTGAAAGTGATATTATATTGT
ACATGTAAATTAATTTAAATATTTTTTCAAATAAAAATGTAATGTCCTGTAAAAA

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FIGURE 1218

MGRNVMRHMSDDLGSYVSLSCDDFSSQELEIFICSFSSSWLQMFVAEAVFKKLCLOSSGSVSSEPLSLQKMVYSY
LPALGKTGVLGSGKIQVSKKIGQRPCFDSQRTLLMLNGTKQKQVEGLPELLDLNLAKCSSSLKKLKKKSEGELSC
SKENCPSVVKKMNFHKTNLKGETALHRACINNQVEKLILLLSLPGIDINVKDNAGWTPLEACNYGNTVCVQEIL
QRCPEVDLLTQVDGVTPLHDALSNGHVEIGKLLQHGGPVLLQQRNAKGELPLDYVVSPQIKEELFAITKIEDTV
ENFHAQAEKHFHYQQLFEGSFLLSRMLLNFCISIFDLSSEFILASKGLTHLNELLMACKSHKETTSVHTDWLLDLY
AGNIKTLOKLPHILKELPENLKVCPGVHTEALMITLEMMCRSVMEFS

FIGURE 1219

[illegible]

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FIGURE 1220

MPAERPAGSGGSEAPAMVEQLDTAVITPAMLEEEEQLEAAGLERERKMLEKARMSWDRESTEIRYRRLQHLLKS
NIYSKFLLTKEQQQLEEQKKKEKLERKKESLKVKKGKNSIDASEEKPVMRKKRGREDESYNISEVMSKEEILSV
AKKNKKENEDENSSSTNLCVEDLQKNKDSNSIIKDRLSETVRQNTKFFFDPVVRKCNGQPVFPQQPKHFTGGVMRW
YQVEGMEWLRMLWENGINGILADEMGLGKTVQCIATIALMIQRGVPGPFLVCGPLSTLPNWMAEFKRFTPDIPMT
LYHGTQEERQKLVRNIYKRKGTQIHPVVITSFEIAMRDRNALQHCYWKYLIVDEGHRIKNMKRLIRELKRFNA
DNKLLLTGTPLQNNLSELWLLNFPDVFDDLKSFESWFDITSLSETAEDIIAKEREQNVLHMLHQILTFFLLR
RLKSDVALEVPPKREVVVYAPLSKKQEIFYTAIVNRTIANMFGSSEKETIELSPTGRPKRRTRKSINYSKIDDFP
NELEKLISQIQPEVDRERAVVEVNIPVESEVNLKLQNMMLLRKCCNHPYLIETPIDPVTQEFKIDEELVTNSGK
FLILDRMLPELKKRGHKVLLFSQMTSMLDILMDYCHLRDFNFSRLDGSMYSEREKNMHSFNTDPEVFIFLVSTR
AGGLGINLTAADTVIIYDSWNPQSDLQAQDRCHRIGQTKPVVVYRLVTANTIDQKIVERAAAKRKLEKLIHKN
HFKGGQSGNLNSKNFLDPKELMELLKSRDYEREIKGSREKVISDKDLELLLLDRSDLIDQMNASGPKEKMGIFKI
LENSEDSSPECLF

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FIGURE 1221

GGCCGTGCCTTCTCTCGCTTCGGACTGCGCAACGCTGCGCTCTGGGCTGACAGGCGGATAAAACGGTCCCATCAA
GACTGAGAAAAAGCACACCAGCTATTGGCACAGCGTGGGCAGTGGGGCCTACAGGATGACTGACTTAGTCTACAG
AGATCCCGGCGTACTTAAGCAGATGAAGACTCTTAAGATGACAGAAGGTGATTTTCTGGTGATCGAGGACTTCC
GGGGTAATGACAGTGATGAAATGCAGGGGACCTGGTTGCCCCAAGTTTCCTGGCAGTGTGTGATACTGAGGAGG
TGAGCTTGTTTCTGGAGCTGTGCTTTAAGATTCATGTTACATGTAAAGCTGTCCTCATTGTGACTATGGACCTA
TGGAGTTGGGACAATCTCTATGGGAAGCAGAAGGCAAGGACCCCGGTCATTTAGGTAGAAACAACAGCATGCTA
ATGCAAAAATTATGCAGTGTGCTACTGAACTTCAGAGGTGATCAATAAAAGAAGAATAAAAAGACTAATAAAAA
AA

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FIGURE 1222

MQGTWLPPSFLAVCDTEEVSLFLELCFKIHVTCKAVLICDYGPMELGQSLWEAEGKDPGHFR

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FIGURE 1223

CCCTTTAAAGGGTGACTCGTCCCACTTGTGTTCTCTCTCCTGGTGACAGATTGCAAGCAAGTTTATCAGAGTATC
GCC**ATGA**AGTTTCGTCCCCCTGCCCTCTGCTGGTGACCTTGTCTGCTGCTGGGGACTTTGGGTCAGGCCCCGAGGCAA
AAGCAAGGAAGCACTGGGGAGGAATTCCATTTCCAGACTGGAGGGAGAGATTCTGCACTATGCGTCCCAGCAGC
TTGGGGCAAGGTGCTGGAGAAGTCTGGCTTCGCGTCGACTGCCGCAACACAGACCAGACCTACTGGTGTGAGTAC
AGGGGGCAGCCCAGCATGTGCCAGGCTTTTGTGCTGACCCCAAACCTTACTGGAATCAAGCCCTGCAGGAGCTG
AGGCGCCTTACCATGCGTGCCAGGGGGCCCCGGTGCTTAGGCCATCCGTGTGCAGGGAGGCTGGACCCCAGGCC
CATATGCAGCAGGTGACTTCCAGCCTCAAGGGCAGCCCAGAGCCCAACCAGCAGCCTGAGGCTGGGACGCCATCT
CTGAGGCCCAAGGCCACAGTGAACTCACAGAAGCAACACAGCTGGGAAAGGACTCGATGGAAGAGCTGGGAAAA
GCCAAACCCACCAACCCGACCCACAGCCAAACCTACCCAGCCTGGACCCAGGCCCGGAGGGAATGAGGAAGCAAAG
AAGAAGGCCTGGGAACATTGTTGGAAACCCTTCCAGGCCCTGTGCGCCTTTCTCATCAGCTTCTTCCGAGGG**TGA**

CAGGTGAAAGACCCCTACAGATCTGACCTCTCCCTGACAGACAACCATCTCTTTTTATATTATGCCGCTTTCAAT
CCAACGTTCTCACACTGGAAGAAGAGAGTTTCTAATCAGATGCAACGGCCCCAAATTCCTTGATCTGCAGCTTCTCT
GAAGTTTGGAAAAGAAACCTTCCTTTCTGGAGTTTGCAGAGTTCAGCAATATGATAGGGAACAGGTGCTGATGGG
CCCAAGAGTGACAAGCATACACAACCTACTTATTATCTGTAGAAGTTTTGCTTTGTTGATCTGAGCCTTCTATGAA
AGTTTAAATATGTAACGCATTCATGAATTTCCAGTGTTTCAGTAAATAGCAGCTATGTGTGTGCAAAATAAAAGAA
TGATTTCAGAAAT

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FIGURE 1224

MKFVPCLLLVTLSCGLTLGQAPRQKQGSGTGEFHFQTGGRDSCMRPSSLGQGAGEVWLRVDCRNTDQTYWCEYR
GQPSMCQAFADPKPYWNQALQELRRLHHACQGAPVLRPSVCREAGPQAHMQQVTSSLKGSPEPNQQPEAGTPSL
RPKATVKLTEATQLGKDSMEELGKAKPTTRPTAKPTQPGPRPGGNEEAKKKAWEHWCWKFQALCAFLISFFRG

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FIGURE 1225

GTCTACACCCCTCCTCACACGCACTTCACCTGGGTGCGGATTCTCAGGTCATGAACGGTCCCAGCCACCTCCGG
 GCAGGGCGGGTGAGGACGGGGACGGGGCGTGTCCAAGTGGCTGTGGGCTCTTGAAACCCGAGC**ATG**GCACAGCAC
 GGGGCGATGGGCGCGTTTCGGGCCCTGTGCGGCCTGGCGCTGCTGTGCGCGCTCAGCCTGGGTGAGCGCCCCACC
 GGGGGTCCCCGGGTGCGGCCCTGGGCGCCTCCTGCTTGGGACGGGAACGGACGCGCGCTGCTGCCGGGTTTACACG
 ACGCGCTGCTGCCGCGATTACCCGGGCGAGGAGTGCTGTTCGAGTGGGACTGCATGTGTGTCCAGCCTGAATTC
 CACTGCGGAGACCCTTGCTGCACGACCTGCCGGCACCACCCTTGTCCTCCAGGCCAGGGGGTACAGTCCAGGGG
 AAATTCACTTTTGGCTTCCAGTGTATCGACTGTGCCTCGGGGACCTTCTCCGGGGGCCACGAAGGCCACTGCAA
 CCTTGACAGACTGCACCCAGTTCGGGTTTCTCACTGTGTTCCCTGGGAACAAGACCCACAACGCTGTGTGCGTC
 CCAGGGTCCCCGCCGGCAGAGCCGCTTGGGTGGCTGACCGTCGTCCTCCTGGCCGTGGCCGCCTGCGTCCTCCTC
 CTGACCTCGGCCCAGCTTGGACTGCACATCTGGCAGCTGAGGAGTCAGTGCATGTGGCCCCGAGAGACCCAGCTG
 CTGCTGGAGGTGCCGCCGTGACCGAAGACGCCAGAAGCTGCCAGTTCCTCCGAGGAAGAGCGGGGCGAGCGATCG
 GCAGAGGAGAAGGGGCGGCTGGGAGACCTGTGGGTG**TGAG**CCTGGCCGTCCTCCGGGGCCACCGACCGCAGCCAG
 CCCCTCCCCAGGAGCTCCCCAGGCCGAGGGGCTCTGCGTTCTGCTCTGGGCCGGGCCCTGCTCCCCTGGCAGCA
 GAAGTGGGTGCAGGAAGGTGGCAGTGACCAGCGCCCTGGACCATGCAGTTCGGCGGGCCGCGGCTGGGCCCTGCAG
 GAGGGAGAGAGACACAGTCATGGCCCCCTTCCCTCCCTTGCTGGCCCTGATGGGGTGGGGTCTTAGGACGGGAG
 GCTGTGTCGCTGGGTGTGCACTGCCAGCACGGGACCCGGCTGCAGGGGACCTTCAATAAACACTTGTCCAGTGA
 AAAAAAAAAAAAAA

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FIGURE 1226

MAQHGMGAFRALCGLALLCALS LGQRPTGGPGCGPGRLLLGTGTDARCCRVHTTRCCRDYPGEECCSEWDCMCV
QPEFHCGDPCCTTCRHHPCPPGQGVQSQGKFSFGFQCIDCASGTFSGGHEGHCKPWT DCTQFGFLTVPGNKTHN
AVCVPGSPPAEPLGWLTVVLLAVAACVLLLTSAQLGLHIWQLRSQCMWPRETQLLLEVPPSTEDARSCQFPEER
GERSAEEKGRLGDLWV

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FIGURE 1227

CGCCCGCGCGCCCCGGGAGCCTACCCAGCACGCGCTCCGCGCCCACTGGTTCCCTCCAGCCGCGCGCTCCAGCC
GAGTCCCCACTCCGGAGTCGCCGCTGCCGCGGGGACATGGTCCCTCTGCGTTCAGGGACCTCGTCCTTTGCTGGCT
GTGGAGCGGACTGGGCAGCGGCCCTGTGGGCCCGTCCCTGGAACTGCCAAGCCAGTCATGCAGCCCTTGCT
GCTGGGGCCTTCCTCGAGGAGGTGGCAGAGGGTACCCAGCCAGACAGAGAGTGAGCCAAAGGTGCTGGACCCA
GAGGAGGATCTGCTGTGCATAGCCAAGACCTTCTCCTACCTTCGGGAATCTGGCTGGTATTGGGGTTCCATTACG
GCCAGCGAGGCCCCGACAACACCTGCAGAAGATGCCAGAAGGCACGTTCTTAGTACGTGACAGCACGCACCCCAGC
TACCTGTTACGCTGTCAGTGA AAACCACTCGTGGCCCCACCAATGTACGCATTGAGTATGCCGACTCCAGCTTC
CGTCTGGACTCCAACCTGCTTGTCCAGGCCACGCATCCTGGCCTTTCCGGATGTGGTCAGCCTTGTGCAGCACTAT
GTGGCCTCCTGCACTGCTGATACCCGAAGCGACAGCCCCGATCCTGCTCCCACCCGGCCCTGCCTATGCCTAAG
GAGGATGCGCCTAGTGACCCAGCACTGCCTGCTCCTCCACCAGCCACTGCTGTACACCTAAAACCTGGTGCAGCCC
TTTGTACGCAGAAGCAGTGCCCGCAGCCTGCAACACCTGTGCCGCCTTGTCAACAACCGTCTGGTGGCCGACGTG
GACTGCCTGCCACTGCCCCGGCGCATGGCCGACTACCTCCGACAGTACCCCTTCCAGCTCTTGACTGTACGGGGCA
ATCTGCCCCACCTCACCCAGTCGCACCCCTGGAGGGGACATCAGCCCCAGCTGGACTTGGGCCCCCACTGTCCCTC
CTCCAGGCATCCTGGTGCCTGCATACCTCTGGCAGCTGGCCCAGGAAGAGCCAGCAAGAGCAAGGCATGGGAGAG
GGGAGGTGTACACAACCTTGGAGGTAAATGCCCCAGGCCGCATGTGGCTTCATTATACTGAGCCATGTGTCAGA
GGATGGGGAGACAGGCAGGACCTTGTCTCACCTGTGGGCTGGGCCAGACCTCCACTCGCTTGCCTGCCCTGGCC
ACCTGAACTGTATGGGCACTCTCAGCCCTGGTTTTTCAATCCCCAGGGTCGGGTAGGACCCCTACTGGCAGCCAG
CCTCTGTTTCTGGGAGGATGACATGCAGAGGAACTGAGATCGACAGTGA TAGTGACCCCTTGTTGAGGGGTAAG
CCAGGCTAGGGGACTGCACAATTATACACTATTTATTTATTTATTCTCCTTGGGGTTGGTGTGAGGGGCGAGCCA
ACCCACCTCTATGCCCTGAGCCCTGGTAGTCCAGAGACCCCAACTCTGCCCTGGCTTCTCTGGTTCTTCCCTGT
GGAAAGCCCATCCTGAGACATCTTGCTGGAACCAAGGCAATCCTGGATGTCCTGGTACTGACCCACCCGTCTGTG
AATGTGTCCACTCTCTTCTGCGCCCAGCCATATTTGGGGAGGATGGACA ACTACAATAGGTAAGAAAATGCAGCC
GGAGCCTCAGTCCCCAGCAGAGCCTGTGTCTCACCCCTCACAGGACAGAGCTGTATCTGCATAGAGCTGGTCTC
ACTGTGGCGCAGGCCCC

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FIGURE 1228

MVLCVQGPRPLLAVERTGQRPLWAPSLELPKPVMOPLPAGAFLEEVAEGTPAQTESEPKVLDPEEDLLCIAKTFS
YLRESGWYWGSITASEARQHLQKMPEGTFLVRDSTHPSYLF TLSVKTTTGPTNVRIEYADSSFRLDNCLSRPRI
LAFPDVVS LVQHYVASCTADTRSDSPDPAPTPALPMPKEDAPSDPALPAPPPATAVHLKLVQPFVRRSSARSLQH
LCRLVINRLVADVDCPLPRRMADYLRQYPFQL

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FIGURE 1229

GGCACGAGGGTTCCCGCCAGGTCCGTGCCGGGCGAGAGAGATGCTGCCCGGCCCGCCTCGGCTTTGAGGCGAGAG
AAGTGTCCCAGACCCATTTTCGCTTGCTGACGGCGTCGAGCCCTGGCCAGACATGTCACAGGGTTCTCCTTCGG
GTCCGGGACTCTGGGCTCCACCACCGTGGCCGCCGGCGGGACCAGCACAGGCGGCGTTTTCTCCTTCGGAACGGG
AGCGTCTAGCAACCCTTCTGTGGGGCTCAATTTTGAAATCTTGGAAGTACTTCAACTCCAGCAACTACATCTGC
TCCTTCAAGTGGTTTTTGAACCGGGCTCTTTGGATCTAAACCTGCCACTGGGTTCACTCTAGGAGGAACAAATAC
AGGAATAGCAACAACATACTACAGGATTAACCTCTGGGAACGCCAGCCACTACATCTGCAGCTACAACAGGCTT
CAGTTTAGGATTCAATAAACCTGCAGCATCTGCCACACCATTGCTCTACCTATTACCTCTACCTCAGCTAGCGG
TCTGACTCTTTCGTCTGCTCTGACATCAACTCCAGCAGCATCCACAGGATTTACTCTAAATAATTTGGGTGGGAC
AACAGCCACAACATACTGCATCAACAGGCCTCTCTTTAGGGGGAGCCTTAGCTGGTTTGGGAGGTTCACTTTT
CCAGAGTACAAACACAGGAACATCAGGACTTGGACAGAATGCTTTAGGGTTGACTTTGGGAACATAAGCAGCTAC
TTCAACTGCAGGCAATGAAGGCCTTGGTGGTATAGATTTCACTAGCTCCTCAGATAAAAAGAGTGATAAAACGGG
AACAAGACCAGAGGATAGTAAAGCTCTGAAGGATGAAATCTACCTCCTGTCTGTCATCTGCCAGGATGTTGAAATCT
CCAGAAATTTGTGAAGGAGCAGAAACAAGTTCAAGAAGAAATTAGTAGAATGTCTTCAAAAGCAATGCTTAAGGT
ACAAGAAGATATTAAAGCTCTGAAGCAGCTCCTGTCTGCTTGGCTGCCAATGGAATACAGAGAAACACTCTCAACAT
TGACAAATGAAAATAGAACTGCTCAGGAGTTGAAGAATGCTGAAATAGCTTTAAGAACCCAGAAGACACCACC
TGGACTTCAACATGAATATGCAGCTCCTGTCTGACTACTTCAGAATCTTGGTTCAGCAATTTGAGGTACAGCTTCA
GCAGTACAGGCAGCAGATTGAAGAACTAGAAAACCATCTTGCCACTCAAGCAATAATTCACATATAACCCCTCA
AGATTTGTCAATGGCTATGCAGAAAATTTATCAACATTTGTAGCTTTAGCGGCACAACCTTCAGTCTATTATGA
AAATGTAAAGGTTCTGAAAGAACAGTACCTTGGCTACAGGAAAATGTTCTTGGGAGATGCTGTTGATGTGTTTGA
AACAAGGCGAGCAGAAGCCAAGAAGTGGCAGAACACACCCAGAGTTACTACTGGACCCACTCCTTTACGACCAT
GCCAAACGCAGCAGCCGTTGCCATGGCTGCAACACTTACACAGCAGCAACAGCCTGCTACAGGGCCACAGCCATC
TCTGGGAGTTAGTTTTTGAACGCCATTTCGGCTCAGGTATTGGCACTGGCTTGCAATCAAGTGGCTTAGGTTCTTC
AAACCTTGGAGGATTTGGAACCTAGCTCTGGTTTTTGGATGCAGCACCACAGGGCCTCCACATTTGGATTTGGAAC
AACAAATAAACCTCAGGAAGTCTTAGTGCAGGCTTTGGCAGCTCAAGTACATCTGGGTTTAACTTCAGCAATCC
TGGCATCACGGCATCAGCTGGTTTGACTTTTGGGGTGTCCAATCCTGCCTCTGCAGGTTTTGGAACAGGAGGACA
ACTCCTTCAGTTGAAGAAACCTCCAGCTGGAAACAAAAGAGGAAAAAGATAAATATGGGTTGATGTGTTGAGAGA
ATCCATAGCAGCACCGTTTCACTTCTATGAGTCTATTTTTCTAATGATGCAGTAATTAATTCATCCCAGGAGATT
TATAAAGTTTTGATATTTTTCCCTACTCTGGAATTTGAACCTTTCTTCATGTTTGCCATACTGAACATCTTTTTTC
TTGTGGAATTTAAAGTCCAGCTGTGTTTTCTTTTTTAATTTGATTCTCAGTGTAAGAAATGTTCTGATTACATCAC
TGATTGGTAATGGTTAGAAACCATTAACCTAAACCTTACTATTTAACCTAGTGTTTTTGTTGATGAGGTTTACAT
TATGTGAATACATGCACATTTGTTTCTTATACAGGTGGTGTGAACCTCTAGGGCCTATACTAGAATCAATTTGTTT
CTTGTTAAAGGCCTTTTGAATTATACTGCAGGGCATCTTGTGAATATGTATGTAAATATATACAGAATAATACAC
ACAGTTGTGTGTGCATATAAAATACATATTTACGCCAGGCGTGGTGGCTCACGCCTGTAATCCCAGCACTTTGGG
AGGCCGAGGCAGGCGGATCACCTGAGGTGAGGAGTTTGAGACCAGCCTGACATGGTGAAACCCCATCTCTACGAA
AAATACAAAAATTAGCTGGGCATAGTGGCGGGTACCTATAATCCCAGCTACTCGGGAGGCTGAGGCACGAGAATC
ACTTGAAGCCGGGAGGTGGGGTTGCAGTGAGCCGAGATCACACCACTGCACTCCAGCCTGGGCAACAAGAGCAA
AACTCCGTCTCAAAAAAAAAAAAAAAAAAAAA

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FIGURE 1230

MSTGFSFGSGTLGSTTVAAGGTSTGGVFSFGTGASSNPSVGLNFGNLGSTSTPATTAPSSGFGTGLFGSKPATG
FTLGGTNTGIATTITTTGLTLGTPATTSAATTGFSLGFNKPAASATPFALPITSTSASGLTLSSALTSTPAASTGF
TLNNLGGTTATTTTASTGLSLGGALAGLGGSLFQSTNTGTSGLGQNALGLTLGTTAATSTAGNEGLGGIDFSSSS
DKKSDKTGTRPEDSKALKDENLPPVICQDVENLQKFVKEQKQVQEEISRMSSKAMLVQEDIKALKQLLSLAANG
IQRNTLNIDKLKIETAQELKNAEIALRTQKTPPGLQHEYAAPADYFRILVQQFEVQLQQYRQQIEELENHLATQA
NNSHITPQDLSMAMQKIYQTFVALAAQLQSIHENVKVLKEQYLG YRKMFLGDAVDVFETRRAEAKKWQNTPRVTT
GPTPFSTMPNAAAVAMAATLTQQQQPATGPQPSLGVSFSGTFFGSGIGTGLQSSGLGSSNLGGFGTSSGFGCSTTG
ASTFGFGTTNKPSGSLSAGFGSSSTSGFNFSNPGITASAGLTFGVSNPASAGFGTGGQLLQLKKPPAGNKRGR

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FIGURE 1231

TTTTCGAGACCGGAAGTGAGTGATCGAAAGCATGGCGTCGGTGGTGTGGCGCTGAGGACCCGGACAGCCGTTAC
ATCCTTGCTAAGCCCCACTCCGGCTACAGCTCTTGCTGTCAGATACGCATCCAAGAAGTCGGGTGGTAGCTCCAA
AAACCTCGGTGGAAAGTCATCAGGCAGACGCCAAGGCATTAAGAAAATGGAAGGTCACTATGTTTATGCTGGGAA
CATCATTGCAACACAGCGCCATTTCCGCTGGCACCCAGGTGCCCATGTGGGTGTTGGGAAGAATAAATGTCTGTA
TGCCCTGGAAGAGGGGATAGTCCGCTACACTAAGGAGGTCTACGTGCCTCATCCAGAAACACGGAGGCTGTGGA
TCTGATCACCAGGCTGCCCCAAGGGTGCTGTGCTCTACAAGACTTTTGTCCACGTGGTTCCTGCCAAGCCTGAGGG
CACCTTCAAACCTGGTAGCTATGCTTTTGATGTCCTGTTGAGGCCATCGGACAGAGACTGGAGCCCAGGTGACAGGA
GATGGTGATACCAGAAGTCAAGGGTTGGGGTGGCGACACGGCCTCCCGAGGAAGAGGTCTGCTTGATGGTGACTC
TGCAGGAGACTCTGAAGTGAAGTGTGCTGGGAAACCCTTTGGGAGACCTGACCTGGGGCCAAAAATAAAGTGAGCCAG
CGTCATGAACGCATGCTATTTAGGGACAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 1232

MASVVLALRTRTAVTSLLSPTPATALAVRYASKKSGGSSKNLGGKSSGRRQGIKKMEGHYVHAGNI IATQRHFRW
HPGAHVGVGKNKCLYALEEGIVRYTKEVYVPHPRNTEAVDLITRLPKGAVLYKTFVHVVPKPEGTFKLVAML

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FIGURE 1233

CCCGAGCCCCGCCCCCTCCGGGCCCCGGGTCGGCGCGCCAGCCTGCCAGCCGCGCTGCTGCTGCTCCTCCTGCTGT
GGGACCGCTGACCGCGCGGCTGCTCCGCTCTCCCGCTCCAAGCGCCGATCTGGGCACCCGCCACCAGCATGGAC
GCTCGCCGCGTGCCGCAGAAAGATCTCAGAGTAAAGAAGAACTTAAAGAAATTCAGATATGTGAAGTTGATTTC
ATGGAAACCTCGTCATCCTCTGATGACAGTTGTGACAGCTTTGCTTCTGATAATTTTGCAAACACGAAACCTAA
TTCAGGTGAGATATCAGTGAAGAACTGGCAAGTGTTTTTATGAGGACTCTGATAATGAATCTTTCTGCGGCTTT
TCAGAAAGTGAGGTGCAAGATGTATTAGACCATTGTGGATTTTACAGAAACCAAGGCCAGATGTCTACTAACGAA
CTGGCCGGTATTTTTTCATGCCGACTCTGACGATGAATCATTTTGGCGTTTCTCAGAGAGTGAGATACAAGATGGA
ATGAGGCTGCAGTCAGTTCGGGAAGGCTGTAGGACCCGCAGCCAGTGCAGGCACTCTGGACCTCTCAGGGTGGCG
ATGAAGTTTCCAGCGCGGAGTACCAGGGGAGCAACCAACAAAAAGCAGAGTCCCGCCAGCCCTCAGAGAATTCT
GTGACTGATTCCAACCTCCGATTGAGAAGATGAAAGTGGAATGAATTTTTTGGAGAAAAGGGCTTTAAATATAAAG
CAAAACAAAGCAATGCTTGCAAACTCATGTCTGAATTAGAAAGCTTCCCTGGCTCGTTCCGTGGAAGACATCCC
CTCCAGGCTCCGACTCACAATCAAGGAGACCGCGAAGGCGTACATTCCCGGGTGTTGCTTCCAGGAGAAACCT
GAACGGAGAGCTCGTCCTCTTACCAGGTCAAGGTCCCGATCCTCGGGTCCCTTGACGCTCTACCCATGGAGGAG
GAGGAGGAAGAGGATAAGTACATGTTGGTGAGAAAGAGGAAGACCGTGATGGCTACATGAATGAAGATGACCTG
CCCAGAAGCCGTCGCTCCAGATCATCCGTGACCCTTCCGCATATAATTCGCCAGTGGAAGAAATTACAGAGGAG
GAGTTGGAGAACGTCTGCAGCAATTCTCGAGAGAAGATATATAACCGTTCAGTGGGCTCTACTTGTCTCATCAATGC
CGTCAGAAGACTATTGATACCAAAACAACTGCAGAAACCCAGACTGCTGGGGCGTTCGAGGCCAGTTCTGTGGC
CCCTGCCTTCGAAACCGTTATGGTGAAGAGGTGAGGATGCTCTGCTGGATCCGAAGTGGCATTGCCCGCCTTGT
CGAGGAATCTGCAACTGCAGTTTCTGCCGGCAGCGAGATGGACGGTGTGCGACTGGGGTCTTGTGTATTTAGCC
AAATATCATGGCTTTGGGAATGTGCATGCCTACTTGAAAAGCCTGAAACAGGAATTTGAAATGCAAGCATTAATAT
CTGGAAAATTTGCTGCCTGCCTTCTACTTCTCAAATCTTTCTTGAAAAGTTTCCAATTTTTTCTACTGAAACCTG
AGTTAAAAATCTTGATGATCAGCCTGTTTCATAAGAACTCCAATCAAGTTAATCTTAGCAGACATGTGTTTCTG
GAGCATCACAGAAGGTATATTGCTAGTTACACTTTGCCCTCCTGCAGTTTCTTCTGCTCCCAACCCCATCTC
ATAGCATCCCCCTCTATTTCCAATGCTCCTCTCCAACCGCTTAGTTTCTGAATTTCTTTTAAATTACAGTTTTAT
GAAAGCATATTTTATTTACTTGGTGTTGAAATAGCCCTCATAAAACCTAAGCACTTGGAACACAATAATAGTAT
TAACTAAGTAGATCTATTGAATTTAGAGAAGAGCCTTCTAACTTGTTTACACAAAACGAGTATGATTTAGCAT
TCATACTAGTTGAAATTTTTAATAGAATCAAGGCACAAAAGTCTTAAACCATGTGGAAAAATTAGGTAATTATT
GCAGATTGATGTCTCTCAATCCCATGTATTGCGCTTATGTTACAAGTTGTTGTACAGTTGAGACTTAATTTCTC
CTAATTTCTTCTGCCCAGGGTAAGTGGTGCGTCCAGCTTACACAATCATAATTCAAAGGTTGGTGGGCAATGT
AATACTTAATTAATAATGATGGAAGAGCTATCTGGAGATTATGAGTAAGCTGATTTGAATTTTCAGTATAAAA
CTTTAGTATAATTGTAGTTTGCAAAGTTTATTTAGTTTACATGTAAGGTATTGCAATAAATTTCTTGACAATT
TTGTATGGAACTTGATATTAAAACTAGTCTGTGGTTCTTTGCAGTTTCTTGTAATTTTATAAACAGGCACAA
GGTTCAAGTTTAGATTTTAAGCACTTTTATAACAATGATAAGTGCTTTTGGAGATGTAACTTTGTAGCAGTTG
TTAACCTGACATCTCTGCCAGTCTAGTTTCTGGGCAGGTTTCTGTGTGCTAGTATTCCCTCCTCTTGTGATTAA
TCAAGGTATTTGGTAGAGGTGGAATCTAAGTGTTTGTATGTCCAATTTACTTGATATGTAAACCATTTGCTGTGC
CATTCATGTTTGTATGCATAATTGGACCTTGAATCGATAAGTGTAATACAGCTTTTGTATCTGTAATGCTTTTAT
ACAAAAGTTTATTTAATAATAAAATGTTTGTCTAACTTGCTGCTTTTTTAAAAATAATCTTACTGTACTTAA
TTCTAATTTTTTCTCATATTTAATAAAAAGGCCATTTCCACCTTTTCT

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FIGURE 1234

MDARRVPQKDLRVKKNLKKFRYVKLISMETSSSSDDSCDSFASDNFANTKPKFRSDISEELASV FYEDSDNESFC
GFSESEVQDYL DHCGLQKPRPDVTNELAGIFHADSDDESFCGFSESEIQDGMRLQSVREGCRTRSQCRHSGPLR
VAMKF PARSTRGATNKKAESRQPSSENSVTDSNSDSEDESGMNFLEKRALNIKQNKAM LAKLMSELESFPGSFRGR
HPLPGSDSQ\$RRP\$RRRTFPGVASRRNPERRARPLTRSR\$RILGSLDALPME\$EEEEEDKYMLVRKRKTV DGYMNED
DLPR\$RR\$R\$SVTLPHIIRPVEEITEEELENVCSNSREKIYNRSLGSTCHQCRQKTIDTKNCRNPDCWGV RGQF
CGPCLRNRYGEEVRDAL LDPNWHCPPCRGICNCSFCRQRDGRCATGVLVYLAKYHGFGNVHAYLKSLKQEFEMQA

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FIGURE 1235

GGCACGAGGCAACTTTGTGTAAAGCAGCTTCTCCACAGAGCTTTCCTGCATTGTTAGTGATGTCGGGCAAAGC
ATCACTCTTTAACCTGGGGCATTGGCCCCAGCAGGGATATCATGGGACCGCAGCCGCTCCGTGCACTGTCTCTGC
CCCCAGAGGAAGCCCTGTCCATGGTTCCCTGGTGACGGCCACAGGCCTGCCTTGAGGCCACCACATCTGGTGTCT
AGAACAGCTGCGGGCCCCACTTGGGCAGAAGGAAGAGGTGCTAGCTGCTGCCCTGCCTGCTGTGAACACCTGCC
CAGCCCTTCCTTGICTGCTGAGGTGCTCAGACCAGAGTGCCATTAAATACCAACTGATGTCACGGAGCGGACGGT
GCATTGCCAAGGACTCACAGCTGTGGGCTCCCTTCCAGCTCCTCCCACTTTCTTGGCTGGGTCTTCTGAGGCCTA
CGTGGAATGAACTACACATGTGGCCTCATGCCCAAGGGTTTGTTAGATGGCCTCTGACTCTGTGGGATTCAACTT
GACTTTTTTGCCCCAGGAGGCTCTGTCTGGAAACAGGCTTAGCTTTAGTGCTGGGGTGGGACCTGCCCTGTGGGC
CCCAGGGAGGGGACAGTGGGGGTGAGGCCCTGAGGCTGTCCAGGGTCTGAGCTCTTGCCTCCAACCTGCTTCTG
CCCCAAAAGGAACAGGCTGTTGGTGGCAGGCTCCTCCCGGGGAGCTGTACTGTACAGACCAAGGTGTAAATAAAC
AGTTTGCTCTTCTAAAAAAAAAAAAAAAAAAAA

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FIGURE 1236

MGPQPLRALSLPPEEALSMVPGARPQACLEATTSGV

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FIGURE 1237

CCTCGCCCCGCTACGCGGGAACCCAACCGCGGCGACCGGACGTGCACTCCTCCAGTAGCGGCTGCACGTCGTGC
AATGCCCCGCTATGAGGAGGTGAGCGTGTCCGGCTTCGAGGAGTCCACCGGGCCGTGGAACAGCACAAATGGCAA
GACCATTTTCGCCTACTTTACGGTTCTAAGGACGCCGGGGGAAAAGCTGGTGCCCCGACTGCGTGCAGGCTGA
ACCAGTCGTACGAGAGGGGCTGAAGCACATTAGTGAAGGATGTGTGTTTCATCTACTGCCAAGTAGGAGAAAAGCC
TTATTGAAAGATCCAAATAATGACTTCAGAAAAAACTTGAAAGTAACAGCAGTGCCTACACTACTTAAGTATGG
AACACCTCAAAAACTGGTAGAATCTGAGTGTCTTCAGGCCAACCTGGTGGAATGTTGTTCTCTGAAGATTAAGA
TTTTAGGATGGCAATCATGTCTTGATGTCCTGATTTGTTCTAGTATCAATAAACTGTATACTTGCTTTGAATTCA
TGTTAGCAATAAATGATGTTAAAAAACTGGCATGTGTCTAAACAATAGAGTGCTATTAAAATGCCCATGAACCT
TTAGTTTGCCTGTAATACATGGATATTTTAAAGATATAAAGAACTCTTCAGAAATAGCAGTAAAGGCTCAAAGGA
ACGTGATTCTTGAAGGTGACGGTAATACCTAAAAACTCCTAAAGGTGCAGAGC

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FIGURE 1238

MARYEEVSVSGFEEFHRAVEQHNGKTIIFAYFTGSKDAGGKSWCPDCVQAEPPVREGLKHISEGCVFIYCQVGEKP
YWKDPNNDFRKNLKVTAVPTLLKYGTPQKLVESECLQANLVEMLFSED

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FIGURE 1239

GGCACGAGGGTCATCGCCGCGGGGCGGAGGCGACAGTGTCTAGCGGGAGCTCCGCGTGTAGCTACGCCGGCCGCC
TGGCTTTGAGACAACGTGATTCTCCGCAGCTGGTCGCCTACCCGTGATGTTCTGCCACGTCGAGACCTGAGCTG
AAATGGCAGACGATCTCGGAGACGAGTGGTGGGAGAACCAGCCGACTGGAGCAGGCAGCAGCCCAGAAGCATCAG
ATGGTGAAGGAGAAGGAGACACAGAAGTGATGCAGCAGGAGACAGTTCCAGTTCCTGTACCTTCAGAGAAAACCA
AACAGCCTAAAGAATGTTTTTTGATACAACCAAAGGAAAAGAGAATACCACCAAGACCAGGAAAAGAAGAA
AGAAGAAAATTACTGATGTTCTTGCAAAATCAGAACCAAAACCAGGGTTACCTGAAGACCTACAGAAGCTGATGA
AGGACTATTATAGCAGCAGACGCTTGGTGATTGAATTAGAAGAACTGAACCTGCCAGACTCCTGTTTCCTCAAGG
CCAATGATTTGACTCACAGTCTTTCCTCATACCTAAAAGGAATTTGTCCTAAGTGGGTAAACTTAGGAAGAACC
ACAGTGAGAAGAAATCGGTCTGATGCTGATCATCTGCAGCTCGGCCGTCCGAGCCCTGGAGCTCATTAGGTCGA
TGACAGCATTGAGAGGAGACGGCAAAGTTATAAAATTATTTGCAAAGCACATAAAGGTCCAGGCGCAGGTAAAGT
TGCTGGAGAAGCGTGTGGTGCACCTGGGTGTAGGAATCCGGGGGAGAATTAAAGAACTTGTTAAACAAGGTGGCC
TTAATTTGAGCCCTTAAAATTTCTGGTTTTTACTGGAAGTGGAGAGATCAGAAGTTGAGGAGAATGATGGACA
TTCCCGAGATAAGAAAGGAGGTATTCGAACCTCTGGAAATGGGAGTGCTCAGTCTGTGCAAGTCAGAATCCTTGA
AACTGGGCCTTTTCTAAGTCTGTGTCCTAATGAAGATTCCAGTTTTTCACAGTAGAAGTTGCATCTTATTTAATGA
CTCTGATACATTGCAAGCACTCAGTAAATATCAGCAAATAGTTTATGTTAATTGTGTCAACAGATGGATCACTGG
AATGTGGGGATTCTGAAACAGAAATGAACTGTCCTTTTGACAACCTCTTATATAATAAAGTATCACCGGCTTG
TGTATGAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 1240

MADDLGDEWWENQPTGAGSSPEASDGEGEDTEVMQQETVPVPVPSEKTKQPKECFLIQPKERKENTTKTRKRRK
KKITDVLAKSEPKPGLPEDLQKLMKDYSSRRLVIELEELNLPDSCFLKANDLTHSLSSYLKGICPKWVKLRKNH
SEKKSVMMLIICSSAVRALELIRSMTAFRGDGKVIKLFKHIKVQAQVKLEKRVVHLGVGTPGRIKELVKQGG
NLSPLKFLVFDWNWRDQKLRRMDIPEIRKEVFELLEMGVLSLCKSESCLKGLF

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FIGURE 1241

GTCTACACCCCTCCTCACACGCACTTCACCTGGGTCGGGATTCTCAGGTCATGAACGGTCCCAGCCACCTCCGG
GCAGGGCGGGTGAGGACGGGGACGGGGCGTGCCAACCTGGCTGTGGGCTCTTGAAACCCGAGC**ATGG**CACAGCAC
GGGGCGATGGGCGCGTTTCGGGCCCTGTGCGGCCTGGCGCTGCTGTGCGCGCTCAGCCTGGGTGAGCGCCCCACC
GGGGGTCCCGGGTGCGGCCCTGGGCGCCTCCTGCTTGGGACGGGAACGGACGCGCGCTGCTGCCGGGTTACACG
ACGCGCTGCTGCCGCGATTACCCGGGCGAGGAGTGCTGTTCCGAGTGGGACTGCATGTGTGTGCCAGCCTGAATTC
CACTGCGGAGACCCCTTGCTGCACGACCTGCCGGCACCAACCTTGTCCTCCAGGCCAGGGGGTACAGTCCCAGGGG
AAATTCAGTTTTGGCTTCCAGTGTATCGACTGTGCCTCGGGGACCTTCTCCGGGGGCCACGAAGGCCACTGCAAA
CCTTGGACAGACTGCACCCAGTTCGGGTTTCTCACTGTGTTCCCTGGGAACAAGACCCACAACGCTGTGTGCGTC
CCAGGGTCCCCGCCGGCAGAGCCGCTTGGGTGGCTGACCGTCGTCCTCCTGGCCGTGGCCGCCTGCGTCCTCCTC
CTGACCTCGGCCAGCTTGGACTGCACATCTGGCAGCTGAGGAGTCAGTGCATGTGGCCCCGAGAGACCCAGCTG
CTGCTGGAGGTGCCGCCGTGACCGAAGACGCCAGAAGCTGCCAGTTCCTCCGAGGAAGAGCGGGGCGAGCGATCG
GCAGAGGAGAAGGGGCGGCTGGGAGACCTGTGGGTGTGAGCCTGGCCGTCTCCGGGGCCACCGACCGCAGCCAG
CCCCCCCCAGGAGCTCCCCAGGCCGCAGGGGCTCTGCGTTCTGCTCTGGGCCGGGGCCCTGCTCCCCTGGCAGCA
GAAGTGGGTGCAGGAAGGTGGCAGTGACAGCGCCCTGGACCATGCAGTTCGGCGGCCGCGGCTGGGCCCTGCAG
GAGGGAGAGAGACACAGTCATGGCCCCCTTCTCCTTGCTGGCCCTGATGGGGTGGGGTCTTAGGACGGGAG
GCTGTGTCCGTGGGTGTGAGTGCCAGCACGGGACCCGGCTGCAGGGACCTTCAATAAACACTTGTCCAGTGA
AAAAAAAAAAAAA

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FIGURE 1242

MAQHGAMGAFRALCGLALLCALSLGQRPTGGPGCGPGRLLLGTGTDARCCRVHTTRCCRDYPGEECCSEWDCMCV
QPEFHCGDPCCTTCRHHPCPPGQGVQSQGKFSFGFQCIDCASGTFSGGHEGHCKPWTQCTQFGFLTVPFPGNKTHN
AVCVPGSPPAEPLGWLTVVLLAVAACVLLLTSAQLGLHIWQLRKTQLLEVPSTEDARSCQFPEEERGERSAEE
KGRLGDLWV

FIGURE 1243

CGTTTTTTAATTTTAAAGTTGGGGGGGCTCTCAATTTGTTACCCTGCTGGTCTCGAACTCCCGGACTTAAGCGAT
CCTCTGGCTCCAAGCCCACTACCAGTCTCAGGTTTCTTTACTAAAAGATCACTACCTTTTTTTCTTTATCTGCT
GCCATG**TGAG**ATGTGGCTTTCACCTTCCGCCATGATTGTGAGGCCTTCCAGCCACGTAGAACTGTAAGTCCAAT
AAACCTCTTTTGTAATTTAAAAAATACTACTATTTAAGATACTAGGATGGATTGTGACTGTTGAGGAGTAC
TTACATATCCTACATTTGACTACATTATTTCCAAACCAAGTATTCCATCCAAGGAACATACTGCTATCATAGAG
ACCAAGGAGGGACTGTTTAAGGTTGCCAAGGTGAAGCGAGCTGAGAGGCTTTGTCTCGTGCCAGTAACTCTGAA
ATCTCTCTTAATTCCTGCTGTCCAGGCAGCAGAATGCCATGGTTTCCCAAGTAGGTAGCTGCTTTAGCAGTTAA
AGCCCAAATGTCGTGTTCTGTTGATCAGAGGTCTCTGAATTTCTGAAGTGGTGTTCGTTTCTGGTGACTGAGTTA
ATCCTTTACAATCCCTCTTGTAAGTGTGCTAATAGAAAAGTCCACCTTTCAAAGCTGCAGAACCCAGACCGTGC
CCTAAATTGACCAACGTAGCTGATGTGCCTCAGGAAGTCTCTTGCCAGCTGTCCCTGTGAAGACCCCCCTCTCC
CCCCCAGCTGCTGCCTTGCACACTGAAGCATCTCAGACTGTGCAAAGCCGTGTAGTCATCAAGACAGTAAATCCC
AGGGCTTGGTTAAGTGCTGTGTGATAACTTGTGTTGGATGAGACTTAACTTAAAACCACTTACAATAAACTTGGGA
AACTACCGTCAGCTGAGTTCAAATTTACTGACGCCATGATATGAGGATGAAGGTTTATTACCTGGTGACATCATC
CTGTTGGTGACATCATCCTGTTGGTGACAAGGTGGTGATACATCTCTAATGGGACTTCCCTCAGTGGCAGGCAGG
CTGCCAAGCAACTAACCCCATCAAGTGCCAGACCCCTCCAGTGTTCTGAGAGTCATCTCCATGCTAAACAGCCT
GCGTTTTATATGATTTCTCTACCCAGCCAAAAAATAATGGTCCATCATGTACGCAGTTATCTAGTCTTAAGTT
ATATTCTGGCTTTTTTCTCCACTTTATTATGGAGCAGAAGTAAGCCTATCATGTTCTTAGAAAGGCTCTTAAGA
GGTGTCTGGAGTCCTTGAATCACTTTAGCATCTGGGGTAGGATGTGCCACCAGGAGGATTTGGGCTGGAGCGTG
TGTGTTTGCCTTTGACCTGGACTGCTGTCTGATCTTGCTGAACACTCCACCGACATTTCTAAAGTTGCTCAGTG
CCAATCCAGCAAAGCAGTCCATTTTCCCTTGCCAAGATTGAGATGTATTGTTTTAGATACAGAAGAGTTCTTGG
ATGAGCCAAGGACAAGCTGGGGTGTCTATATTGAACAGACCTCGATGAAAATCTTGAATTCACCCAGTGCCCT
CTGTTGGCAAGGGAAGGTGAAGATTGAAAAGTTAAAAAGCTTTTGGCCACTTGAGAGGATCAGGGCCGCAACTC
TTGAAGAAGCAAAGGGCTCAGTGCAATTGGGGTCAGCGCTGGTACAGCTGAAGGATGCCGGCCTTGTGCAGGTCCC
TCCACAGGGCAGCTTCCAGGGACAGATCGTGGTTTGCATAAAATATCAATGGCTTCATTTTTTCGTTCGAAATAGT
GGTCGAAAAATTTCCAGTAGTTGCTTGTGATGAATCCATAGGCACCTGACCTGGTTCACAGGTATGCAAAGCTGTCA
GCAGCATGAGAGCCCCGGTACTAGGCATATATAGGTCTCCAAAATGTGTGTTAATCAACTTTGATTTCAAGAACC
TTTCTGTGAGGTAGCTGATGAAGTCCGGATGTAGCAGCTTGAATTTACTGGCAGAGGCTTCTGGTCCAAAAATAGG
CGTGCGGCCTGTCCCTTTATCTAGGCCCTCAGGGACAGGCACGCCAGAATGGCCGATCTCAGCATCACATAGT
CGCGGATGTCTGAGGGGATGAAGATATACTGCAGGTCTGTCTTGTGGCACGGAGGTGAAGCCAGATTCCAGT
AGGAGACGAGGGAGTTCTTCATCGTGTTACAGTGAAACCATAGAAGGAAGTCTTGGTGCCACATCGCGCTCGA
AGCCTTTGATCACAGCTCCATTGAGTCTGAATACATAGTCATGGGCATCGATGTTGGGACCCCTGGCGGGACCCAT
TCAGAATGCCCTCCGTTGCCCACACGGCACACCGGATACACTTTGGAGGGGTGTCCCTGGGCGGGGCAAACAGCT
TGGCACTCTCTGAGCCGTTTCAAAGGCTCAGGGTGGAGGCGATGACTTGGTGAGAGAGCCCCGCCAGCCATACG
GGGCTTTGTGTTGGCTCAGGCGGTCCCAGAGCGCTGGGGTGAAGAGGTCCCCCACAGCAGCACTGGAATGGAGA
GATTGAACAGGCCACGGAAGTGGGGGTGCCGCTGAATGGCCAGGTGAAGCAGGTGTCCGCAGGCCTGGCCCTTC
CTGTCCAAGAATTCGATGCCTTGATTGAAAGAATGCTTCAAATGATGTGGTGTCCCTGGCTCCGGCCGCTGGCC
CCGGGTACCGCTGCACCGCCGAGAAGTACAGGGCAAAGAGGAGCCCCGAGCAGGCAGCCGTGAGCAGGAGCAGCA
GCCAGAAGAACGACCCGCGCGGGAGCCCCATACAGCCCCGCGCGAGCGCCCCGTCCGACTGACGTCCAGGGC
AGAAGGGAGAGAACC GGTTGGGCCGGGTGGCACTTGCGGAG

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FIGURE 1244

RFLILKLGGVSICYPAGLELPDLSPLPSPLPVSGFFTKRSLPFFLLSAAM

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FIGURE 1245A

GTGGACCCAGGGTGGGGAACCTACCTCTTCTCTCCACGCGGTTGAGAAGACCGGTCGGCCTGGGCAACCTGCGCT
GAAGATGCCGGGAAAACCTCCGTAGTGACGCTGGTTTGAATCAGACACCGCAATGAAAAAGGGGAGACACTGCG
AAAGCAAACCGAGGAGAAAGAGAAAAAAGAGAAGCCAAAATCTGATAAGACTGAAGAGATAGCAGAAGAGGAAGA
AACTGTTTTCCCAAAGCTAAACAAGTTAAAAAGAAAGCAGAGCCTTCTGAAGTTGACATGAATTCTCCTAAATC
CAAAAAGGCCAAAAAGAAAGAGGAGCCATCTCAAAATGACATTTCTCCTAAAACCAAAAGTTTGAGAAAGAAAA
GGAGCCCATTTGAAAAGAAAGTGGTTTCTTCTAAAACCAAAAAAGTGACAAAAATGAGGAGCCTTCTGAGGAAGA
AATAGATGCTCCTAAGCCCAAGAAGATGAAGAAAGAAAAGGAAATGAATGGAGAACTAGAGAGAAAAGCCCCAA
ACTGAAGAATGGATTTCTCATCTCTGAACCGGACTGTAACCCCAAGTGAAGCTGCCAGTGAAGAAAGTAACAGTGA
GATAGAGCAGGAAATACCTGTGGAACAAAAAGAAGGCGCTTTCTCTAATTTTCCCATATCTGAAGAACTATTAA
ACTTCTCAAAAGCCGAGGAGTGACCTTCTATTTCTTATACAAAGCAAAGACATTCCATCATGTTTACAGCGGGAA
GGACTTAATTGCACAGGCACGGACAGGAACCTGGGAAGACATTCTCCTTTGCCATCCCTTTGATTGAGAAACTTCA
TGGGGAACCTGCAAGACAGGAAGAGAGGCCGCTGCCCCCTCAGGTACTGGTTCTTGCACCTACAAGAGAGTTGGCAAA
TCAAGTAAGCAAAGACTTCAGTGACATCACAAAAAGCTGTCAAGTGGCTTGTTTTTATGGTGGAACTCCCTATGG
AGGTCAATTTGAACGCATGAGGAATGGGATTGATATCCTGGTTGGAACACCAGGTGCTATCAAGACCACATACA
GAATGGCAAACCTAGATCTCACAACTTAAGCATGTTGTCTGGATGAAGTGGACCAGATGTTGGATATGGGATT
TGCTGATCAAGTGAAGAGATTTTAAGTGTGGCATAACAAGAAAGATTCTGAAGACAATCCCCAACATTGCTTTT
TTCTGCAACTTGCCCTCATTGGGTATTTAATGTTGCCAAGAAATACATGAAATCTACATATGAACAGGTGGACCT
GATTGGTAAAAAGACTCAGAAAACGGCAATAACTGTGGAGCATCTGGCTATTAAGTGCCACTGGACTCAGAGGGC
AGCAGTTATTGGGGATGTCATCCGAGTATATAGTGGTCATCAAGGACGCACTATCATCTTTTGTGAAACCAAGAA
AGAAGCCCAGGAGCTGTCCAGAATTCAGCTATAAAGCAGGATGCTCAGTCCTTGCATGGAGACATTCCACAGAA
GCAAAGGGAAATCACCTGAAAGTTTTAGAAATGGTAGTTTTGGAGTTTTGGTGGCAACCAATGTTGCTGCACG
TGGGTTAGACATCCCTGAGGTTGATTTGGTTATACAAAGCTCTCCACCAAGGATGTAGAGTCTACATTCATCG
ATCCGGGCGGACAGGCAGAGCTGGAAGGACGGGGGTGTGCATCTGCTTTTATCAGCACAAGGAAGAATATCAGTT
AGTACAAGTGGAGCAAAAAGCGGGAATTAAGTTCAAACGAATAGGTGTTCTTCTGCAACAGAAATAATAAAAGC
TTCCAGCAAAGATGCCATCAGGCTTTTGGATTCCGTGCTCCCACTGCCATTAGTCACTTCAAACAATCAGCTGA
GAAGCTGATAGAGGAGAAGGGAGCTGTGGAAGCTCTGGCAGCAGCACTGGCCCATATTTTCAAGGTGCCACGTCCGT
AGACCAGCGCTCCTTGATCAACTCAAATGTGGGTTTTGTGACCATGATCTTGAGTGCTCAATTGAAATGCCAAA
TATTAGTTATGCTTGGAAGAAGCTTAAAGAGCAGCTGGGCGAGGAGATTGATTCCAAAGTGAAGGGAATGGTTTT
TCTCAAAGGAAAGCTGGGTGTTTGCTTTGATGTACCTACCGCATCAGTAACAGAAATACAGGAGAAATGGCATGA
TTCACGACGCTGGCAGCTCTCTGTGGCCACAGAGCAACCAGAACTGGAAGGACCAGGGAAGGATATGGAGGCTT
CAGGGGACAGCGGGAAGGCAGTCGAGGCTTCAGGGGACAGCGGGACGGAAACAGAAGATTCAGAGGACAGCGGGA
AGGCAGTAGAGGCCCGAGAGGACAGCGATCAGGAGGTGGCAACAAAAGTAACAGATCCCAAAACAAAGGCCAGAA
GCGGAGTTTCAGTAAAGCATTGGTCAATAGAAATAGAAGATTTATATAGCAAAAAGAGAATGATGTTTGG
CAATATAGAACTGAACATTATTTTTCATGCAAAGTTAAAAGCACATTGTGCCTCCTTTTGACCACTTGCCAAGTC
CCTGTCTCTTTCAGACACAGACAAGCTTCATTTAAATTATTTTCATCTGATCATTATCATTATATACTTTATTGTT
ACTTCTTCATCAGTTTTTCTTTTGAAAGGTGTATGAATTCATTACATTTTTATTCTAATGTATTATCTGTAGAT
TAGAAGATAAAATCAAGCATGTATCTGCCTATACTTTGTGAGTTACCTGTCTTTATACTCAAAAGTGTCCTTA
ATAGTGTCTTCCCTGAAATAAATACCTAAGGGAGTGAACAGTCTCTGGAGGACCCTTTGAGCCTTTGGAAGT
TAAGGTTTTCTCAGCCACCTGCCGAACAGTTTCTCATGTGGTCCTATTATTGTCTACTGAGACTTAATACTGAG
CAATGTTTTGAAACAAGATTTCAAATAATCTGGGTTGTAATACAGTTTATACCAGTGTATGCTCTAGACTTGGA
AGATGTAGTATGTTTGATGTGGATTACCTATACTTATGTTTCGTTTTGATACATTTTTAGCTTCTCATTATAAGGT
GATTCATGCTTTAGTGAATTTCTCATAGATAGTATATATAAAAGTACATTTTAATAGAAAGCCAGGGTTTTAAGG
AATTCACATGTATAAGGTGGCTCCATAGCTTTATTTGTAAGTAGGCTGGATAAATGGTGTCTAAATGGTAATGT
ACTCCACTTCTTCTTATTGGAAGATTAACATTATTTACCAAGAAGGACTTAAGGGAGTAAGGGGCGCAGATTAGC
ATTGCTCAAGAGTATGTAAAAAAGAGAAAGAAACCAACCACTGGAAATAATCAAATGCAAAAAGGTA
ACAAATTCATAACTGGAAGCAAAGAGAAGAACAAGTATGATTGGATGATAAAGCATTGTTTTAATGGTGAAAA
CTTCACAGATCACTAATGTTTCTAGAGGTTAACTTCAAGTGGGCAAGCTGGGGTTTTTAGGTAGTCAGTGGCCTA
GTTCTTAAAGCCACAGTATAGGATCTGTAAACTGAATGTCTGTTGAAAGTTTGTTTTAGCTGCTTGGAGGCTTC

FIGURE 1245B

CTTTTAAGACAAACTGTATGTGATTAAGTTGTTTTGAGGGAACCTGAAGAACCTGATGTAGCCCCTGGCCAGATAA
CTGCCTGATTTCTCAGATATTATTTCTCTGGGAAACATTCTACATAGCACAGGAGCTTAAGAGTGGCATTATCTT
CTCGCCTTAATTTCCAGAGATTATTTCTGTACTGAGAATCCTGGAACCTACTATGCTAGGAAATTTAAAGCTGCAT
GGTCTGTCTTGTTTTCAATTAATTATTGTGAATACCTAGAATCTTTCTTGCTCCTGATTTCTCTTGCTTAATCCA
GTCTTTATCTCTAACTGCCCCTTATTTGATCACCATGTACTAGGAGCTCTGATAGCCAGCTCAGCTCCTAATCCT
TGAGGCAACATTCTTTTTCTATTTGAACTTCAGTTCTGTCTTGAATCCCGACTAGATATTTCTTGCCCTCTGGT
CTCAGAATTCTCTTGCTTTTTATTCCTTGATCCACTTGCCAGTTTTATCACTTTACCCTTGTTCCCTCATGGCTTC
CCATCAAGCCATGGGTATTAGGTGACAGTGTAATTTATTAGATTCTGGTTTTGCCCAAATACTGGGCATGCTTTA
ATAATAACTGAACCATTTTCATTATTTGGATAGGCATGGGTACCTTATCAAGCAGATTAAAAGGATATGGTACCCG
TCCTTTAGAAAAGAACAGCTAAAACCTTGTTGTGGATTATGGATTTAGCCTAAAGAAAAATAATCTGGCATAAAT
TAAGAGTAAGAGAGAAGATTAATAGAAATTTCACTTCACATAACTTAAAACATGGCTATTTCAATAAAGGACTAA
AGTTTCTCCTGGATCCCAGAATTCACCTGTATTTATAAATGTATAATGTATTTAGCTACTTTTTGGTTTTAAATG
AACTTGTTGGGTTAGCTTGGTAAATGTTATAATTTTTACTGTTTTCTACAAAGAAAATATTTTCTAATTTAAGTT
GGAGCTATCTGTGCAGCAGTTTCTCTACAGTTGTGCATAAATGTTTTTACTATAAAATGAGCTAATGTATAAAAT
ACTGCTGTATACCATAATAAAGATAGTAATACCTTGAAAAAA

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FIGURE 1246

WTQGGELPLPLHAVEKTGRPGQPALKMPGKLRSDAGLESDTAMKKGETLRKQTEEEKKKEPKSDKTEEIAEEEE
TVFPKAKQVKKKAEPSEVDMNSPKSKKAKKKEEPSQNDISPKTKSLRKKKEPIEKVVSSKTKKVTKNEEPSEEE
IDAPKPKMKKEKEMNGETREKSPKLKNGFPHPEPDCNPSEAASEESNSEIEQEIPVEQKEGAFSNFPISEETIK
LLKGRGVTFLLPIQAKTFHHVYSGKDLIAQARTGTGKTFSAIPLIEKLHGELQDRKRGRAPQVLVLAPTRELAN
QVSKDFSDITKKLSVACFYGGTPYGGQFERMRNGIDILVGTPGRIKDHQNGKLDLTKLKHVVLDQMLDMGF
ADQVEEILSVAYKKDSEDNPQTLLFSATCPHWVFNVAKKYMKSTYEQVDLIGKKTQKTAITVEHLAIKCHWTQRA
AVIGDVIRVYSGHQGRTIIFCETKKEAQELSONSAIKQDAQSLHGDIPQKQREITLKGFRNGSFGVLVATNVAAR
GLDIPVDLVIQSSPPKDVESYIHRSGRTGRAGRTGVCICFYQHKEEYQLVQVEQKAGIKFKRIGVPSATEI IKA
SSKDAIRLLDSVPPTAISHFQSAEKLIEEKGAVEALAAALAHISGATSVDQSLINSNVGFVTMILQCSIEMP
ISYAWKELKEQLGEEIDSKVKGMVFLKGKLGVCDFVPTASVTEIQEKWHSRRWQLSVATEQPELEGPREGYGGF
RGQREGSRGFRGQRDGNRRFRGQREGSRGPRGQRSGGGNKSNRSQNGQKRSESKAFGQ

FIGURE 1247A

CGCGGGGGCTGAGCGCCCGGATACAGCGCGAGCACCCAGCCGCCCTCGGCCGGGAGGGCCTGAGAACCCCGGGG
CGGTGCTGAGCGTGGAGCTGCCCGGGCTGCTGGCGCAGCTGGCGCGGAGCTTCGCGCTGCTGCTGCCCGTGTACG
CGCTGGGCTACCTGGGGCTCAGCTTCAGCTGGGTCTCTCTCGCGCTCGCGCTGCTCGCCTGGTGTGCGCGCAGCC
GCGGCCTCAAGGCCCTGCGCCTGTGCCGCGCGCTGGCGCTGCTGGAAGACGAGGAGCGCGCTGCTGCGCCTGGGGG
TGCGCGCCTGCGACCTGCCCGCCTGGGTTCATTTTCCAGACACTGAAAGAGCAGAATGGCTAAATAAGACTGTAA
AACACATGTGGCCTTTTCATTTGCCAATTTATAGAGAAGTTGTTTTCGAGAAACTATAGAACCAGCCGTGCGGGGAG
CAAACACCCACCTTAGCACCTTTAGTTTCACGAAGGTCGACGTGGGCCAGCAGCCCCCTCAGGATCAATGGTGTTA
AGGTATACACTGAAAATGTAGACAAAAGGCAAATTATTTGGACCTTCAGATTAGTTTTGTAGGAAATTGTGAGA
TTGATTTGGAGATCAAACGATATTTTTGTAGAGCTGGTGTGAAAAGTATCCAGATTTCATGGTACCATGCGGGTGA
TCCTGGAACCGTTGATTGGAGATATGCCCTTAGTTGGAGCTTTGTCTATCTTCTTCCTTAGGAAACCACCTTTAG
AAATTAACCTGGACAGGACTGACGAATCTTCTGGATGTCCCTGGATTGAATGGTTTATCAGATACTATCATTTTGG
ATATAATATCAAACATCTGGTGTCTCCCAATCGAATCACCGTTCCTACTTGTCTAGTGAAGTTCAAATAGCTCAGT
TGCGGTTTTCTGTACCAAAGGGTGTCTAAGGATACATTTTATTGAAGCTCAGGATCTTCAGGGGAAAGACACTT
ACCTTAAGGGACTTGTCAAGGGAAAGTCAGACCCCTATGGAATCATTAGAGTTGGCAACCAAATCTTCCAAAGCA
GAGTCATCAAGGAGAACCTCAGTCCAAAGTGAATGAAGTCTATGAGGCTTTAGTGTATGAACATCCTGGACAAG
AATTAGAGATTGAGCTCTTTGATGAAGACCCAGACAAGGATGACTTTTTAGGAAGTCTTATGATTGACCTCATTG
AAGTTGAAAAGGAGCGCCTTTTAGATGAATGGTTCACTCTGGACGAGGTTCCCAAGGGGAAGCTACACTTGAGAC
TGGAGTGGCTCACGTTAATGCCAAATGCGTCAAACCTCGACAAGGTGCTAACAGACATCAAAGCTGACAAAGACC
AAGCCAACGATGGTCTTTTCTCTGCATTGCTGATCTTGTACTTGGATTTCAGCAAGGAACCTTCCGTCAGGGGAAGA
AAATAAGCAGCAACCCAAATCCTGTTGTGCCAGATGTCAGTTGGGCACAAGGCCCAGGAGAGCAAGATTCGATACA
AAACCAATGAACCTGTGTGGGAGGAAAACCTTCACTTTCTTCATTACAAATCCCAAGCGCCAGGACCTTGAAGTTG
AGGTTCAGAGACGAGCAGCACCAAGTGTTCCTTGGGGAACCTGAAGGTCCCCCTCAGCCAGCTGCTCACCAAGTGAGG
ACATGACTGTGAGCCAGCGCTTCCAGCTCAGTAACTCGGGTCCAAACAGCACCATCAAGATGAAGATTGCCCTGC
GGGTGCTCCATCTCGAAAAGCGAGAAAAGGCCCTCCAGACCACCAACACTCAGCTCAAGTCAAACGTCCCTCTGTGT
CCAAAGAGGGGAGGAAAACATCCATCAAATCTCATATGTCTGGGTCTCCAGGCCCTGGTGGCAGCAACACAGCTC
CATCCACACCAGTCATTGGGGGCAGTGATAAGCCTGGTATGGAAGAAAAGGCCCAGCCCCCTGAGGCCGGCCCTC
AGGGGCTGCACGACCTGGGCAGAAGCTCCTCCAGCCTCCTGGCCTCCCCAGGCCACATCTCAGTCAAGGAGCCGA
CCCCCAGCATCGCCTCGGACATCTCGCTGCCCATCGCCACCAGGAGCTGCGGCAAAGGCTGAGGCAGCTGGAAA
ACGGGACGACCCTGGGACAGTCTCCACTGGGGCAGATCCAGCTGACCATCCGGCACAGCTCGCAGAGAAAACAAGC
TTATCGTGGTCTGTGCATGCCTGCAGAAACCTCATTGCCTTCTCTGAAGACGGCTCTGACCCCTATGTCCGCATGT
ATTTATTACCAGACAAGAGGCGGTTCAGGAAGGAGGAAAACACACGTGTCAAAGAAAACATTAAATCCAGTGTTTG
ATCAAAGCTTTGATTTTCAGTGTTCGTTACCAAGAGTCCAGAGGAGAACGCTTGACGTTGCCGTGAAGAACAGTG
GCGGCTTCTGTCCAAAGACAAAGGGCTCCTTGGCAAAGTATTGGTTGCTCTGGCATCTGAAGAACTTGCCAAAG
GCTGGACCCAGTGGTATGACCTCACGGAAGATGGGACGAGGCCTCAGGCGATGACATAGCCGCAGCAGGCAGGAG
GCGTCTCTTTCAGCGTAGCTCTCCACCTCTACCCGGAACACACCCTCTCACAGACGTACCAATGTTATTTTTATA
ATTTTCATGGATTTAGTTATACATACCTTAATAGTTTTATAAAATTGTTGACATTTTCAGGCAAATTTGGCCAATAT
TATCATTGAATTTTCTGTGTTGGATTTCTCTAGGATTTCCGCAGTTCTTACAACGTGCAGTAGGGCGGCGGTAG
CTCTTGTGCTGTGTGGACTCTGCTCAGCTGTGTCCGTAGGAGTCGGATGTGTCTGTGCTTTATTATGGCCTTGTTT
ATATATCACTGAGGTATACTATGCCATGTAAATAGACTATTTTTTATAATCTTTACATGCTGGTTTTAAATTCAGA
AGGAAATAGATCAAGGAAATATATATATTTTTCTTCTAAAACCTTATTAATTCGTGTGACAAATAATCATTTTCAT
CTTGGCAGCAAAGTTCTCAGTGACCTATTTTGTGGTGTCTTTTTTGAAGAAAAGCTGAAATATTATTAAAT
GCTAGTATGTTTCTGCCATTATGAAAGATGAAATAAAGTATTCAAATATTAACATTTTCATAAATATAAGGAT
GTATTATTGAGAAGTAAGTTGAAGGGCTTATAAGGAAAAATGTTTTATAACTGAGTAATATATTAAGAGAATTGT
CATGGTTTCATAAATCAGATTATGCTAATCTGAAATTTCTTACATAAAAAATGAAGTGTCTTATGTTTTATTTTAATT
GCTGTTGTAACCTTACTCATGAAACAGTATACAGACACCTTGTACTTTTCTCAACTGTAAGAGCAGACTTTCAAT
GTTAGCAATTAAGCTGTTGTCAAACAATCAGTCATGAGCTTTGTTAATTTTCAATGTTTTCCAGCCTATAAAAA
AAGGAAGGTACACGTTGTCTTTTTAAAGGTTGTGAGGTAGATTGGAGTGAGTAGACAGGATATTGCATTAAAAAT
TGAAAGCTCGATCTCATTATTGTTCAGGAACCCCCAGTGTGACCTCACACATAGGATGTGGGACCTTTGAGCCGAT

FIGURE 1247B

GTGCACTGGCCACCACCAGGTTGGGGGCGCCACAGCTGCGAGCCCGGCCCTGCTGTTCTCAGCAGCCACTTCC
CAGGCTGCCTCACTTTATGCCATGACTGACCTTAATATTGGGATATTGTTATGCAATTTTTATCCTGTTTAGACT
GTTAAAAGCAGGTTTCTGTACTTAAGAGTCCCCAGACCTCCTGTGAGGTGAGGCTCTGTTGCAGTGTCTAGGC
TGTGTGTGTCTGTAAAGAAAGAATGCACATATGTAGACGATTAAGTGTATATTATAAGCTATATGCTGAAAATGG
CTTCCATAGCCATGAGAACATCTTAAACTATGTGTAAATATATTAAGGAAAGTATAGCTTTGTAATTTAAATTG
GAGCTTTTAGCTTGTTTCATGGAACATAACAACCTGTGGGTAACCTCACATGACCAAACAAACAAAGTGCCTGTG
ACGGGGCGGGTGGCGTCTACCCACCCTCCCTTCTAGCAGATTCTTATTTGTTTGAATTTATAAACAAGGCTGGT
GGCTGTCTACCCACCCTCCCTTCTAGCAGATTTTGATTTTGTTCATTTATAACTTACACTTTGAACCATGGGT
TTACTTATAATGGAGTCTGTAGCTTCACAGCATATTTTATGTAAATCATAAAGACCAGTATATTCCTCCTGCTGA
ATGACATGCGACTGTAAAGCCTCTTTATAAACCATTTCCTAATGTTAGTATATAGGATTATTTGGGAAGCGTATCA
ATACCTTTATAGACAAATACGAACATGTATGCACACAAAACATTTAACTATGGTATTTATGGAAGACAGGTAACA
ACATTAAATCTAGTTGCTTTCCCTTAGTATTAGATTTGTTGAGGGTTTTTTAAAAATCAGGTCTGTTGAAAGTCT
TCTGTCATAATCTATAAAGCAGCAGCACTCATGGAAATTGTAGCATGCCAGTAATTTTTACCAACATCCCATACA
TCTGAGTTCTGCAGTCCAGTGTGTAATCCGCTCCATGTGTATTTTGCTTAATGGAATGCTTTATTTAAGCACTTA
GGCAGAGTAGACACAATTAAAGGTACAAAGCCCAGAGGAAGTGGTAGAGCAGCACCGTGCCTGCCCTGAGGCAGT
GGAGTCAGTAGCGCTGTCCCCAGGGCCTTGAGTGCCTGGAGGTGCTTGGCCTCCAGTAGCTGCCTCCATTCTCTT
TTAAAAAAGGGGGTGATTCTGAGGCACTGAAGTGCCTCCAGATGTGGAGGAGTGAAGCCACCATCGAGGCCAC
ACTCAGCACTCCAGGATCCAGCGATGTCAGACACTCTTGAGTTGTCAAACGTTAATTTTTCAGTTTTAAATAAT
CAGTTTATCTAAGAAAAGGGAATTTTAACTTTTCTACCTTGAGCCAAGCCAATGAAGGGAAAATTAATTAACCTA
GTAAATTTGAAGTGCAGCTCTGTTAGCTCGTACATGTGGGTCTTATCCTGATCCTGTGCCTTAAAGTAGGAAGG
TGTTTCCAAGTTCAGATTAAATAGAAGCAGCTGGCCGGGTGCGGTGGCTCACGCCTGTAATCCAGCACTTTGG
GAGGCCGAGGCGGGCGGATGACCTGAGGTGAGGAGTTCAAGACCAGCCTGGCCAACATGGAGAAACCCCATCTTT
ACTAAAAATACAAAAATTAGCCGGGCGTGGTGGTGGAGCGCACGCCTGTAGTCCAGCTACTCGGGAGGCTGAGG
CAGGAGAATTGCTTGAACCCAGGAGGCGGAGGTTGCAGTGAGCCAAGATCGCACCCTGCACTCCAGCCTGGGCA
ACAGAGTGAGACTCCGTCTCAAAAAATAAATAAATAAGAAGCAGCCTTGTAACCTGTATTTACCATGATAATATAT
TCTGCACGGTAAGAATTCCTTTTACAGACATTCTTTATCAAGAGGTGCGCCCTTCTTTTTTCAGGCACATAAGCCA
AATGCAGGCCTGTGTGTAGCTGTGTGTTTTTCTGTGGTTGCCGCATTTATTCCACCTCCAGCTGGACCCCCAC
TGCAAAATAGAGAACAGCGGTGGGGGATGGGGGTAAAAAGTAGAGAACCTCCTTTCTGTTCAACTAATTTACGCT
GACAGTGCATGTATTTATTCAATAAAACCTTTATGTTAGCTC

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FIGURE 1248

AGCGGGTTTGCGGGAGCGCCGCGTGGTTAGCGTCGGCGGCTTTTGGC**ATG**GCGACTTTTTCTGGCCCGGCTGGGC
CAATCCTGTCGCTTAATCCGCAGGAAGATGTCGAGTTTCAAAAGGAGGTGGCGCAGGTTGCAAGCGCATAAACC
AGCGAAAAAACAAGAACAACCTTACTCCTGGAGTAGTCTATGTGCGCCACCTACCTAACCTACTTGACGAAACCC
AGATCTTTTCATATTTCTCCAGTTTGGCACTGTGACACGGTTCAGGCTGTCCAGAAGTAAAAGGACTGGAAATA
GCAAAGGCTATGCATTTGTGGAGTTTGAGTCTGAGGATGTTGCCAAAATAGTTGCTGAAACAATGAACAACCTACC
TGTTTGGTGAAAGACTCTTGGAGTGTCAATTTATGCCACCTGAAAAAGTACATAAAGAACCTTTTAAAGACTGGA
ATATTCCATTTAAGCAGCCATCATATCAATCAGTGAAACGGTATAATCGGAATCGGACACTAACACAAAAGCTAC
GGATGGAGGAGCGATTTAAAAAGAAAGAAAGATTACTCAGGAAGAAATTAGCTAAAAAAGGAATTGACTATGATT
TTCCTTCTTTGATTTTACAGAAAACGGAAAGTATTTCAAAAACCTAATCGTCAGACGTCTACAAAAGGCCAGGTTT
TACGTAAGAAGAAGAAAAAGTTTTCAGGTACTCTTGACACTCCTGAGAAGACTGTGGATAGCCAGGGCCCCACAC
CAGTTTGTACACCAACATTTTTGGAGAGGCGAAAATCTCAAGTGGCTGAACTGAATGATGATGATAAAGATGATG
AAATAGTTTTTCAACAGCCCATATCCTGTGTAAAAGAAGAAATACAAGAGACTCAAACACCTACACATTCACGGA
AAAAAGACGAAGAAGCAGCAATCAG**TGA**TTTTTCAATGTATTATATTTCTTTTGAAAAATATAATATTTTTATGA
GAGTGGACTTTGTATTTCACTAGGTACAATGGAATACAACCTTTGACAAGATTTTCAGAGGAAAAATACACTGTT
TGGTCAAGTTAAGGAAAGCAGTGTGTAATTTTGATTGCCTGCCCTTGGCTGAAATACAGGGGTGCATACCATCT
TGCAGTGGCTTGGCTGACATTGCCTCTTTGTCTGGCCTCTAGTTTTCTTTTGATATTTTCATAGCTCTCCTTAGT
TTACTCTGCCTGGATAGAAAGTTGACCACTAACTGCAGGTTTAAAGTACTAACTGCAGCCTTTTTCTGTGCGCCAGC
AATTAAAGACCACCAATCTTGTGTGTCATCTACATGGTTTGTGCGGGACATTTAACTCATGGAGGTGCTTTAGA
TTTCAACATCAGATGGTTGAAGCTGGAAGTTTAATTATATGTAGAGTGAGAAGGCAGTTCCAGTTTTAGCACAGA
TTTGTATATGTGTTTCAATTTAATAGAGATTCAAAAATGACTCATTTTTTACCAATAATGTTAAATTAGTTTTGG
TTGTGCTAGCATGAATTAATAACCACCATTTTATACCAGTATCATCAGTGAAGAATTGATTTTCAAGATTCAAAC
AATAACCAGCAATTAAACTTTTTTCTACAATGTATTTGTTTGCAGTAGGACTTGGGAGTCATTGGAAAAAAA
ATAATAAATTTTCCCCTTCATTAACAAAAA

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FIGURE 1249

MATFSGPAGEILSLNPQEDVEFQKEVAQVRKRITQRKKQEQLTPGVVYVRHLPNLLDETQIFSYFSQFGTVTRFR
LSRSKRTGNSKGYAFVEFESEDAKIVAETMNNYLFGERLLECHFMPPEKVKELFKDOWNIPFKQPSYQSVKRYN
RNRTLQKLMEERFKKKERLLRKKLAKKGIDYDFPSLILQKTESISKTNRQTSTKGQVLRKKKKKVSGTLDTP
KTVD SQGPTPVCTPTFLERRKSQVAELNDDDKDDEIVFKQPI SCVKEEIQETQTPTHSRKKRRRSSNQ

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FIGURE 1250

GGCGCTCCGCCTGCTGCGCGTCTACGCGGTCCCCGCGGGCCTTCCGGGCCCACTGCGCCGCGCGGACCGCCTCGG
GCTCGGACGGCCCGGTGTCCCCGGCGCGCCGCTCGCCCGGATCGGCCGCGGCTTCGGCGCCTGGGGCTCGGGGCTC
CGGGGAGGCCGTGCCCCGCGATGCTGCTCTCCAAGTTCGGCTCCCTGGCGCACCTCTGCGGGCCCGGCGGCGTGG
ACCACCTCCCGGTGAAGATCCTGCAGCCAGCCAAGGCGGACAAGGAGAGCTTCGAGAAGGCGTACCAGGTGGGCG
CCGTGCTGGGTAGCGGCGGCTTCGGCACGGTCTACGCGGGTAGCCGCATCGCCGACGGGCTCCCGGTGGCTGTGA
AGCACGTGGTGAAGGAGCGGGTGACCGAGTGGGGCAGCCTGGGCGGCGCGACCGTGCCCTGGAGGTGGTGTGCTGC
TGGCAAGGTGGGCGCGGCGGGCGGCGCGCGCGCGTCAATCCGCTGCTGGACTGGTTCGAGCGGCCCGACGGCT
TCCTGCTGGTGTGGAGCGGCCGAGCCGGCGCAGGACCTCTTCGACTTTATCACGGAGCGCGGCGCCCTGGACG
AGCCGCTGGCGCGCCGCTTCTTCGCGCAGGTGCTGGCCGCGCTGCGCCACTGCCACAGCTGCGGGGTGCTGCACC
GCGACATTAAGGACGAAAATCTGCTTGTGGACCTGCGCTCCGGAGAGCTCAAGCTCATCGACTTCGGTTCCGGGTG
CGCTGCTCAAGGACACGGTCTACACCGACTTCGACGGCACCCGAGTGACAGCCCCCGGAGTGGATCCGCTACC
ACCGCTACCACGGGCGCTCGGCCACCGTGTGGTTCGCTGGGCGTGCTTCTCTACGATATGGTGTGTGGGGACATCC
CCTTCGAGCAGGACGAGGAGATCCTCCGAGGCCGCGCTGCTCTTCCGGAGGAGGGTCTCTCCAGAGTGCCAGCAGC
TGATCCGGTGGTGCCTGTCCCTGCGGCCCTCAGAGCGGCCGTCGCTGGATCAGATTGCGGGCCATCCCTGGATGC
TGGGGGCTGACGGGGGCGCCCCGGAGAGCTGTGACCTGCGGCTGTGCACCCTCGACCCTGATGACGTGGCCAGCA
CCACGTCCAGCAGCGAGAGCTTGTGAGGAGCTGCACCTGACTGGGAGCTAGGGGACCACCTGCCTTGGCCAGACC
TGGGACGCCCCCAGACCCTGACTTTTTCTGCGTGGGCGGTCTCCTCCTGCGGAAGCAGTGACCTCTGACCCCTG
GTGACCTTCGCTTTGAGTGCCTTTTGAACGCTGGTCCCGCGGGACTTGGTTTTCTCAAGCTCTGTCTGTCCAAAG
ACGCTCCGGTCGAGGTCCCGCCTGCCCTGGGTGGATACTTGAACCCAGACGCCCCCTCTGTGCTGCTGTGTCCGG
AGGCGGCCTTCCCATCTGCCTGCCACCCGGAGCTCTTCCGCGGCGCAGGGTCCCAAGCCACCTCCCGCCCT
CAGTCTGCGGTGTGCGTCTGGGCACGTCTGACACACAATGCAAGTCTGGCYTCCGCGCCCCGCCCCACG
CGAGCCGTACCCGCCGCCAACTCTGTTATTTATGGTGTGACCCCTGGAGGTGCCCTCGGCCCACCGGGGCTATT
TATTGTTTAATTTATTTGTTGAGGTATTTCTCTGAGCAGTCTGCCTCTCCCAAGCCCCAGGGGACAGTGGGGA
GGCAGGGGAGGGGGTGGCTGTGGTCCAGGGACCCAGGCCCTGATTCTGTGCCTGGCGTCTGTCTGGCCCCGC
CTGTGAGAAAGATGAACATGTATAGTGGCTAACTTAAGGGGAGTGGGTGACCCTGACACTTCCAGGCACTGTGCCC
AGGGTTTGGGTTTTAAATTATTGACTTTGTACAGTCTGCTTGTGGGCTCTGAAAGCTGGGGTGGGGCCAGAGCCT
GAGCGTTTAATTTATTCAGTACCTGTGTTTGTGTGAATGCGGTGTGTGCAGGCATCGCAGATGGGGGTCTTTTCA
GTTCAAAAGTGAGATGTCTGGAGATCATATTTTTTTATACAGGTATTTCAATTAAAATGTTTTTGTACATAGAAA
AAAAAAAAAAAAAAAAAAAAAGGGCGG

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FIGURE 1251

RSACCASTRSPRAHCAARTASGSDGRCPRRAARPDRPRLRRLGLGAPGRPSPAMLLSKFGSLAHLGPGGVD
HLPVKILQPAKADKESFEKAYQVGAVLGSGGFGTVYAGSRIADGLPVAVKHVVKERVTEWGS LGGATVPLEVVLL
RKVGAAGGARGVIRLLDWFERPDGFLLVLERPEPAQDLDFITERGALDEPLARRFFAQVLA AVRHCHSCGVVHR
DIKDENLLVDLRSGELKLIDFGSGALLKDTVYTDFDGT RVYSPPEWIRYHRYHGRSATVWSLGVLLYDMVCGDIP
FEQDEEILRGRLLFRRRVSPECQQLIRWCLSLRP SERPSLDQIAAHPWMLGADGGAPESCDLRLCTLD PDDVAST
TSSSESL

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FIGURE 1252A

GACCGCGGCTGCAGGAACGGAGGCGGAAGGGGCCCTGCGGCGACGACGTCGTCGACGGGGGTGGCCGTGGGAGCT
GAGCACGGAGAAGACTCCCTCTCTCGGAAGCCGGATCCCGAGCCGGGCAGGATGGATCACCACCAGCCGGGGACT
GGGCGCTACCAGGTGCTTCTTAATGAAGAGGATAAATCAGAATCATCGGCTATAGAGCAGCCACCTACTTCAAAC
CCAGCACCGCAGATTGTGCAGGCTGTGTCTTCAGCACCAGCACTTGAAACTGACTCTTCCCTCCACCATATAGT
AGTATTACTGTGGAAGTACCTACAACCTCAGATACAGAAGTTTACGGTGAGTTTTATCCCGTGCCACCTCCCTAT
AGCGTTGCTACCTCTCTTCTACATACGATGAAGCTGAGAAGGCTAAAGCTGCTGCAATGGCAGCTGCAGCAGCA
GAAACATCTCAAAGAATTGAGGAGGAAGAGTGTCCACCAAGAGATGACTTCAGTGATGCAGACCAGCTCAGAGTG
GGGAATGATGGCATTTCATGCTGGCATTTCATGGCATTATTTTCAACTGGCTTGGATTTTGTATCCTTC
TGTATACCAATACCATAGCTGGAAGGTATGGTGCTATCTGCGGATTTGGCCTTTCCTTGATCAAATGGATCCTT
ATTGTCAGGTTTTCTGATTATTTTACTGGATATTTCAATGGACAGTATTGGCTTTGGTGGATATTTCTTGACTT
GGCCTGCTCCTTTTCTTCAGAGGATTGTTAATTATCTAAAAGTCAGAAACATGTCTGAAAGTATGGCAGCTGCT
CATAGAACAAGGTATTTCTTCTTATTGTAGAGACTGCATCAACCCGACATTCCTTTCTTATACCAATGTGAAATT
TCCAGATCATCTGTAAACCTACAACCTTTAATAGAAGACTACTAATAACAGAAGACAAATTAGTGAAGAAAAGACG
GAGTTTTCGAAATTGAATGGCAGGGTGGTTTTTGCTTACAAGCCATTTCTGTTTCATTCTTTAAGTATCTATATTTT
ATTTGTTTTGCACATATGCATATGTGCCATTTAAGATATTTGCATATACTTGATAGAAACCATAAAGTTGTAGC
AGTTAAGTCCAGTCACATTTGGTTAATCAGTGTTTGATATAATTGAAAGAGTTGAGTGGATAAACAGTCTTCCAG
CTTGTAATGCCATTGACTTCTGACCTGACATTTAGTATAATAAAATGAAATTCCTAACCATGTCAAATGATTT
AGTTTCTGGCTCTTAGACTCATCTGGCAGTTCTACACATGAAACATCTTTTGTATATAAGGTGTATTGAAACCT
GCAGTGCTGATTATTAGAAAGGATTTGTCGGATTTTGAACATGATATTTACATTATTATTTAGGAAAACCTTTC
CTGTAAATAACCATGCATAACTTACTTTCTGCAATGTTTTCTTAGAAATTGTGTCCAGATAGCTTTCACTAATTT
TAAATTAAGTGAACATAATATATATGTGTATATGTATACACATATATATACACACACATATATATATTTAGAA
ACGTGAGTGTTAAAGATAGAATTTGTTTTAGGACAAATTTAAGAAAATGTGGGAATACCAAATGTCCTTTATAA
GAAAAATAAATTTTGTTTTAAGGGACATACCAGTTTTAGGGATTTTCAGATGGGAAGCTGCATTTTTAGGATTGC
CCATCTTAAGAGATCTTGCAAGGAAGAGATTGTATTAGATATTATATTTATTTTCATTTAAGATAATTTTCAAAGTT
AATTTTCTAAATAAGATAATTTCTCATTGTGTTGTCTTTTAAAGGCCAATAAAATATCTTTCAGTATCATTGT
AATAATTTTTTAGAGTTTAATTTGTAAAGCTTAGCAAATAAAATCTTGACTATGAATAGCTTCTTGCTTTATGA
CTTTAGGATTAACCTTGTAATAAACATATCCTGAACTGAGATATGCAAAATACTCATTTCAGTTATGGAAATGT
GTTTGTGGCATATAGGACTGTGGGCTGTGTGTGTAGTGAGAGTGTGTAGCCACTATTATAACTGGAATTTAAT
TTACATTATAAACTACTATATTTCCCATCTTGCAATCATTTTATGTCTCATCTGTTTTTCTTTTCGGTTATAT
CTTTGGTTTTGAATACCAACATTTAAATGATGGTATTTTATCTTTTAACTTAAAAATTATTTAATACAGCTAT
ATGGACCTTATAAAATTGATTTCTTATTTATTATTAGACATTACTACTAAAAGGTACATCTAACTATTCAGGGAC
ATTTTCCATTTCCAAAAATAAAATTTATTATGCTTTATAACCTCTCTGTATTTTCTAATTTTTTCATTGTCT
TTGATAAATAAAACAGTTTTGTTTTGCTAATATAGCCTATTTTTGTTTTGTCTCATTACAGTTTACTTTCTGCG
TAGAATTTTTATTGTTATATTAATAATTTTATTGTTGTATTAAAGTACCTGTGTTACACCCCTTGAAGTAAGACA
GTAGCATGGGGTAAAGAAAAAATATTTAGTTTATGTTGCCTAATTTGGAAGTTAATTAATAAATACTGTAAT
AACATATTCAACTCATGCTGGATCTCTTTCATATTAATTTCTTATAGACCTGTACTTTATCTTTCAATAATTT
TTAAATGAAATTAAGCTTTGCTACATGGTAATTAATAAATTACTAGGAAGCTTAGCTATCAAACATCGACTTACT
AAAATTTCAATTTTAGCTTTTATGGTATATGTGCTTGTCTTGAATATGGATACATGTTACTTTTGATCCAGCAT
CAAACTTCATTTTGTGTTTACTTTTCCCCCAATCTGTAAGGTTCAAGTATACATATTACTGAATCCTCTA
TAATTTGGCATAATTCATGGTAGCCTTAAATCTCATCATGTAAGCAGGGGAATCAGAATGTTATTTTCAAGAACT
TAATGTTCCCTTCAGATATATAAAATCCTGCATCTTCATTTCTGTGAGCTTGAACAGCTGCTGTTGTGTTTTG
GGGATGCTTGATCATCTTTGCACTCTGCCTTAAAGATTGAAAAATCAAACTCTTGTTAGGGTATCTAAACATTT
TTGAGTGTGAAGTGGGGATTGGAAGTTAATACAAAAAATTTCAAATTATTTCTATTGTAAATGAATAAGCTAGT
CATGGCTAGGATAATCCATTTTCATGTATTTATGCAATAAACTGAATTTTAAAGGCAAAAACAACACTTTTCTATA
TAGTGTATGCAGGACAGATTTTAGAACTTAGATTAAATACAAATCCCATTACATTTGGTTAAATGAATCTCT
GCTTAATGAAAAAATACTAATCTTTAGCCTATTTTGAGTCTATAAGATATATTTCAATTTAGACATGCCTTCTA
AGTTGTTACAGATTTTACCTGCTAAAACAATATTATTTCCAGTAAACCTCTCCTAACAGGAAAAGTGGAGTT
CAAAATATCCAATTGGAGAAAAATTCAGAGTTCCTTCATTAAATATAATTTTTTTCATCTAGTATGTACTATTTT

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FIGURE 1252B

AAGAAGTGCAAAAAGTAATGATAGTGAATGTGATACCATACTTAAGGTAATATATATCCTTAGTTTGCTCA
AAAGAGTCCTGGTTATTCCTGTTTTCTCAGCTTAATAGTGCCTCATCGTACTCTCAAAGTGTTCTAATTTGGAG
GATAAGTTATATGATCATCCTGTGTATAATTGTAGACTGTACCAAGAAGCAACTACCTTAGCTCCACTGCCCTTT
GAGGGATGGAAGTGGGGTAAGGGCAGGAGCCAGTTATTATTGCCACAGTGTTTTCTAATGAACCATTTGGCCTGT
AGAAGAGGAATAGTATTTTTTTTTTAATAGTTGTATTTGAATGATTCCAGCTTATCGTAAATACTAAACTGAATGGC
TTTTATATTTTTAACTGCTGTTAAATGTTATTTTAGCATTATATTAGTTGTTTATTATTTAATTCTTCAAATAGTC
ATATGAAAACATATATTTGATAAAGGTCAATTGTTAGATGATAATGTGCCATTCAATTATCATAGGAATGTCCTTG
CCCATATATAAAACATGCTGGCATGTATTTTACTTGTTAATAAAGTTGTATAGATGTGGAAGTGGAACCTGTGA
TGCATCCTTTTCAAATCAGTTTAAGATTTCGCATATTATCATGACTGTGACCTCACTAAACTGTTTATGTGACAA
ACCTTTCAAGATTGGAGATGAAAACAACACTTGTGAAATTAGGTTGGGGTTGCAACATCTTTTAACTTCTCAGTT
ATTTGTATGTCAGGAAACAGATTGTGGTTTAATTTTAATAAACAAAATATCATCTTTTTTGAAAAT

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FIGURE 1253

DRGCRNGGGRGPAATTSSSTGVAVGAEHGEDSLSRKPDPEPGRMDHHQPGTGRYQVLLNEEDNSESSAIEQPPTSN
PAPQIVQAVSSAPALETDSSPPPYSSITVEVPTTSDTEVYGEFYVPPPYSVATSLPTYDEAEKAKAAAMAAAAA
ETSQRIQEECPPRDDFSDADQLRVGNDGIFMLAFFMAFIFNWLGFCLSFCTINTIAGRYGAICGFGLSLIKWIL
IVRFSDYFTGYFNGQYWLWWIFLVLGLLLFFRGFVNYLKVRNMSESMAAAHRTRYFFLL

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FIGURE 1254A

GACCGCGGCTGCAGGAACGGAGGCGGAAGGGGCCCTGCGGCGACGACGTCGTCGACGGGGGTGGCCGTGGGAGCT
GAGCACGGAGAAGACTCCCTCTCTCGGAAGCCGGATCCCGAGCCGGGCGAGGATGGATCACCACCAGCCGGGGACT
GGGCGCTACCAGGTGCTTCTTAATGAAGAGGATAACTCAGAATCATCGGCTATAGAGCAGCCACCTACTTCAAAC
CCAGCACCGCAGATTGTGCAGGCTGTGTCTTCAGCACCAGCACTTGAAACTGACTCTTCCCCTCCACCATATAGT
AGTATTACTGTGGAAGTACCTACAACCTCAGATACAGAAGTTTACGGTGAGTTTATCCCGTGCCACCTCCCTAT
AGCGTTGCTACCTCTCTTCTACATACGATGAAGCTGAGAAGGCTAAAGCTGCTGCAATGGCAGCTGCAGCAGCA
GAAACATCTCAAAGAATTGAGGAGGAAGAGTGTCCACCAAGAGATGACTTCAGTGATGCAGACCAGCTCAGAGTG
GGGAATGATGGCATTTCATGCTGGCATTTCATGGCATTATTTTCAACTGGCTTGGATTTTGTATCCTTC
TGTATACCAATACCATAGCTGGAAGGTATGGTGCTATCTGCGGATTGGCCTTCCCTTGATCAAATGGATCCTT
ATTGTCAGGTTTTCTGATTATTTTACTGGATATTTCAATGGACAGTATTGGCTTGGTGATATTTCTTGACTT
GGCCTGCTCCTTTTCTTCAGAGGATTGTTAATTATCTAAAAGTCAGAAACATGTCTGAAAGTATGGCAGCTGCT
CATAGAACAAGGTATTTCTTCTTATTGTAGAGACTGCATCAACCCGACATTCCCTTCTTATACCAATGTGAAATT
TCCAGATCATCTGTAAACCTACAACCTTTAATAGAAGACTACTAATAACAGAAGACAAATTAGTGAAGAAAAGACG
GAGTTTCGAAATTGAATGGCAGGGTGGTTTTTGCTTACAAGCCATTCTGTTCATTCTTTAAGTATCTATATTTT
ATTTGTTTTGCACATATGCATATGTGCCATTTAAGATATTTGCATATACTTGATAGAAACCATAAAGTTGTAGC
AGTTAAGTCCAGTCACATTTGGTTAATCAGTGTTTGATATAATTGAAAGAGTTGAGTGGATAAACAGTCTTCCAG
CTTGTAATGCCATTGACTTCTGACCTGACATTTAGTATAATAAAATGAAATCTTAACCATGTCAAATGATTT
AGTTTCTGGCTCTTAGACTCATCTGGCAGTTCTACACATGAAACATCTTTTGTATATAAGGTGTATTGAAACCT
GCAGTGCTGATTATTAGAAAGGATTTGTCGGATTTTGAACATGATATTACATTATTATTTAGGAAAACCTCTTC
CTGTAAATAACCATGCATAACTTACTTTCTGCAATGTTTTCTTAGAAATTGTGTCCAGATAGCTTTCATAATTT
TAAATTAAGTGAACATAATATATATGTGTATATGTATACACATATATATACACACACATATATATATTTAGAA
ACGTGAGTGTTAAAGATAGAATTTGTTTTAGGACAAATTTTAAAGAAATGTGGGAATACCAAATGTCCTTTATAA
GAAAAATAAATTTTGTTTTAAAGGGACATACCAGTTTTAGGGATTTTCAGATGGGAAGCTGCATTTTLAGGATTGC
CCATCTTAAGAGATCTTGCAGGAAGAGATTGTATTAGATATTATATTTATTTTCAATTTAAGATAATTTTCAAAGTT
AATTTTCTAAATAAGATAATTCTCATTTGTGTTGTCTTTTAAAGGCCAATAAAATATCTTTCAGTATCATTGT
AATAATTTTTTAGAGTTTAAATTTGTAAAGCTTAGCAAATAAAATCTTGACTATGAATAGCTTCTTGCTTTATGA
CTTTAGGATTAACCTTGTAATAAACATATCCTGAACCTGAGATATGCAAAATACTCATTTTCAAGTTATGGAAATGT
GTTTGTGGCATATAGGACTGTGGGTCTGTGTGTGTAGTGAGAGTGTGTAGCCACTATTATAACTGGAATTTAAT
TTACATTCATAAACTACTATATTTCCCATCTTGCAATCATTTTATGTCTCATCTGTTTTTCTTTTCGGTTATAT
CTTTGGTTTTGAATACCAACATTTAAATGATGGTATTTTATCTTTTAAACTTAAATATTTTAAATACAGCTAT
ATGGACCTTATAAAATGATTTCTTATTTATTATTAGACATTACTACTAAAAGGTACATCTAACTATTTCAGGGAC
ATTTTTCCATTTCCAAAAATAAAATTTATTATGCTTTATAACCTCTTCTGTATTTTCTAATTTTTTTCATTGTCT
TTGATAAATAAAACAGTTTTGTTTTGCTAATATAGCCTATTTTTTGTGTTGCTCATTTCAGTTTACTTTCTGCG
TAGAATTTTTATTGTTATATTAAATTTTTATTGTTGTATTAAAGTACCTGTGTTACACCCCTTGAAGTAAGACA
GTAGCATGGGGTAAAGAAAAATATTTAGTTTAGTTGCCTAATTTGGAAGTTAATTTAAATTTAACTGTACTAAT
AACATATTCAAACCTCATGCTGGATCTCTTTCATATTAATTTCTTATAGACCTGTACTTTATCTTTCAATAATTT
TTAAATGAAATTAAGCTTTTGCTACATGGTAATTAATAATTTACTAGGAAGCTTAGCTATCAAACATCGACTTACT
AAAATTTTCAATTTTATGCTTTTATGGTATATGTGCTTGTCTTCTGAATATGGATACATGTTACTTTTGATCCAGCAT
CAAACTTTCATTTTGTGTTTACTTTTCCCCCAATCTGTAAGGTTCAAGTATACATATTACTGAATCCTCTA
TAATTTGGCATAATTCATGGTAGCCTTAAATCTCATCATGTAAGCAGGGGAATCAGAATGTTATTTTCAAGAACT
TAATGTTCCCTTCAGATATATAAAATCCTGCATACTTCATTTTCTGTGAGCTTGAACAGCTGCTGTTGTGTTTTG
GGGATGCTTGATCATCTTTCAGCTCTGCCTTAAAGATTGAAAAATCAAACTCTTGTTAGGGTATCTAAACATTT
TTGAGTGTGAACCTGGGATTGGAAGTTAATACAAAAAATTTCAAATTTATTTCTATTGTAAATGAATAAGCTAGT
CATGGCTAGGATAATCCATTTTCATGTATTTATGCAATAAACTGAATTTTAAAGGCAAAACAACACTTTTCTATA
TAGTGTATGCAGGACAGATTTTAGAACTTAGATTAAATACAAATCCCATTACATTTGGTTAAATGAATCTCT
GCTTAATGAAAAAATACTAATCTTTAGCCTATTTTGAGTCTATAAGATATATTTTCAATTTTAGACATGCCTTCTA
AGTTGTTACAGATTTTACCTGCTAAACAATATTATTTCCAGTAAACCTCTCCTAACAGGAAAAGTGGAGTT
CAAAATATCCAATTGGAGAAAAATTCAGAGTTCTTTCATTAAATATAATTTTTTTCATCTAGTATGTACTATTTT

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FIGURE 1254B

AAGAAGTGCAAAAAGTAATGATAGTGAATGTGATACCATACTTAACTAAGGTAATATATATCCTTAGTTTGCTCA
AAAGAGTCCTGGTTATTCCIGTTTTCTCAGCTTAATAGTGCCTCATCGTACTCTCAAAGTGTTCTAATTTGGAG
GATAAGTTATATGATCATCCTGTGTATAATTGTAGACTGTACCAAGAAGCAACTACCTTAGCTCCACTGCCCTTT
GAGGGATGGAAGTGGGGTAAGGGCAGGAGCCAGTTATTATTGCCACAGTGTTTTCTAATGAACCATTGCGCTGT
AGAAGAGGAATAGTATTTTTTTAATAGTTGTATTTGAATGATTCCAGCTTATCGTAAATACTAACTGAATGGC
TTTTATATTTTAACTGCTGTAAATGTTATTTTAGCATTATTTAGTTGTTTATTATTTAATTCTTCAAATAGTC
ATATGAAAACATATATTTGATAAAGGTCAATTGTTAGATGATAATGTGCCATTCAATTATCATAGGAATGTCCTTG
CCCATATATAAAACATGCTGGCATGTATTTTACTTGTTAATAAAGTTGTATAGATGTGGAAGTGTGAACCTGTGA
TGCATCCTTTTCAAATCAGTTTAAGATTTCGCATATTATCATGACTGTGACCTCACTAACTGTTTATGTGACAA
ACCTTTCAAGATTGGAGATGAAAACAACACTTGTGAAATTAGGTTGGGGTTGCAACATCTTTAACTTCTCAGTT
ATTTGTATGTCAGGAAACAGATTGTGGTTTAATTTTAATAAACAAAATATCATCTTTTTGAAAAT

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FIGURE 1255

ACAGGAAGTGAAGAGCTTCCGCCGGGAGACCGCGGCTGCAGGAACGGAGGCGGAAGGGGCCCTGCGGCGACGACG
TCGTCGACGGGGGTGGCCGTGGGAGCTGAGCACGGAGAAGACTCCCTCTCTCGGAAGCCGGATCCCCAGCCGGGC
AGG**ATG**GATCACCACCAGCCGGGGACTGGGCGCTACCAGGTGCTTCTTAATGAAGAGGATAACTCAGAATCATCG
GCTATAGAGCAGCCACCTACTTCAAACCCAGCACCGCAGATTGTGCAGGCTGCGTCTTCAGCACCAGCACTTGAA
ACTGACTCTTCCCCCTCCACCATATAGTAGTATTACTGTGGAAGTACCTACAACCTCAGATACAGAAGTTTACGGT
GAGTTTTATCCCGTGCCACCTCCCTATAGCGTTGCTACCTCTCTTCTACATACGATGAAGCTGAGAAGGCTAAA
GCTGCTGCAATGGCAGCTGCAGCAGCAGAAACATCTCAAAGAATTGAGGAGGAAGAGTGTCACCAAGAGATGAC
TTCAGTGATGCAGACCAGCTCAGAGTGGGGAATGATGGCATTTCATGCTGGCATTTCATGGCATTATTTTC
AACTGGCTTGGAATTTGTTTATCCTTCTGTATCACCAATACCATAGCTGGAAGGTATGGTGCTATCTGCGGATTT
GGCCTTTCCTTGATCAAAATGGATCCTTATTGTGAGTTTTCTGATTATTTTACTGGATATTTCAATGGACAGTAT
TGGCTTTGGTGGATATTTCTTGTACTTGGCCTGCTCCTTTTCTTCAGAGGATTTGTTAATTATCTAAAAGTCAGA
AACATGTCTGAAAGTATGGCAGCTGCTCATAGAACAAAGGTATTTCTTCTTATTG**TAG**AGACTGCATCAACCCGAC
ATTCTTTTCTTATACCAATGTGAAATTTCCAGATCATCTGTAAACCTACAACCTTTAATAGAAGACTACTAATAAC
AGAAGACAAATTAGTGAAGAAAAGACGGAGTTTTCGAAATTGAATGGCAGGGTGGTTTTTGCTTACAAGCCATTTT
TGTTCAATCTTTAAGTATCTATATTTCAATTTGTTTTGCACATATGCATATGTGCCCATTTAAGATATTTGCATAT
ACTTGATAGAAACCATAAAGTTGTAGCAGTTAAGTCCAGTCACATTTGGTTAATCAGTGTTTGATATAATTGAAA
GAGTTGAGTGGATAAACAGTCTTCCAGCTTGTAATGCCATTGACTTCTGACCTGACATTTAGTATAATAAAAT
GAAATCTTAACCATGTCAAATGATTTAGTTTCTGGCTCTTAGACTCATCTGGCAGTTCTACACATGAAACATCT
TTTGTTATATAAGGTGTATTGAAACCTGCAGTGCTGATTATTAGAAAGGATTTGTCAGATTTTGAACATGATAT
TTACATTATTATTTAGGAAAACCTCTTCTGTAAATAACCATGCATAACTTACTTTCTGCAATGTTTTCTTAGAAA
TTGTGTCCAGATAGCTTTCCTAATTTTAAATTAAGTGAACATAATATATATGTGTATATGTATACTCATATATA
TACACACACACACATATATATATCTAGAAACGTGAGTGTTAAAGATAGAATTTGTTTTAGGACAAATTTTAAGAA
AATGTGGGAATACCAAATGTCCTTTATAAGAAAAATAAATTTTATTTTAAGGGACATACTAGTTTTAGGGATTTT
CAGATGGGAAGCTGCATTTTTAGGATTGCCATCTTAAGAGATCTTGCAAGGAAGAGATTGTATTAGATATTATAT
TTATTTTCAATTAAGATAATTTTCAAAGTTAATTTTCTAAATAAGATAATTCTCATTGTGTTTGTCTTTTAAAG
GCCAATAAAATATCTTTCAGTATCATTGTAATAATTTTTTAGAGTTTAATTTGTAAAGCTTAGCAAATAAAATCT
TGTACTATGAATAGCTTCTTGCTTTATGACTTTAGGATTAACCTTGTAACCAACATATCCTGAACTGAGATATGCA
AAATACTCATTTCAGTTATGGAATGTGTTTGTGGCATATAGGACTGTGGGGTCTGTGTGTGTAGTGAGAGTG
TGTAGCCACTATTATAACTGGAATTTAATTTACATTCAATAAACTACTATATTTCCCATCTTGCAATCATTTTAT
GTCTCATCTGTTTTTCCCTTCGGTTATATCTTTGGTTTTGAATACCAACATTTAAATGATGGTATTTTATCTTT
TAACTTAAAAATTATTTAATACAGCTATATGGACCTTATAAAATGATTTCTTATTTATTATTAGACATTACTA
CTAAAAGGTACATCTAACTATTCAGGGACATTTTCCATTTCCAAAAATAAAATTTATTATGCTTTATAACCTC
TTCTGTATTTTCTAATTTTTTTCATTGTCTTTGATAAATAAAACAGTTTTGTTTTGCT

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FIGURE 1256

MDHHQPGTGRIQVLLNEEDNSESSAIEQPPTSNPAPQIVQAASSAPALETDSPPPYSSITVEVPTTSDTEVYGE
FYPVPPPYSVATSLPTYDEAEKAKAAAAAETTSQRIQEECPPRDDFSDADQLRVGNDGIFMLAFFMAFIFN
WLGFLSFCITNTIAGRYGAICGFLSLIKWILIVRFSYFTGYFNGQYWLWWIFLVLGLLLFFRGFVNYLKVRN
MSESMAAAHRTRYFFLL

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FIGURE 1257A

GCCTTATAAGTGGTTTAGTGCTCAGTTGGCTCTAGTAACCAGAGGACACAGAAAGTATCTTTTGAAAGTTTAGC
CACCTGTGCTTTCTGACTCAGAGTGCATGCAACAGTTAGATCATGCAACAGTTAGATTATGTTTAGGGTTAGGAT
TTTCAAAGAATGGAGGTTGCTGCACTCAGAAAATAATTCAGATCATGTTTATGCATTATTAAGTTGTAAGTGAATT
CTTTGCAGCTTAATGTGATATATGACTATCTTGAACAAGAGAAAAAACTAGGAGATGTTTCTCCTGAAGAGCTTT
TGGGGTTGGGAAGTATTCTTTTTTAATTGCTGTACTACTTAACATTGTTCTAATTCAGTAGCTTGAGGAACAGGA
ACATTGTTTTCTAGAGCAAGATAATAAAGGAGATGGGCCATACAAATGTTTTCTACTTTCTGTTGTGACAACATTG
ATTAGGTGTTGTCAGTACTATAAATGCTTGAGATATAATGAATCCACAGCATTCAAGGTCAGGCTACTCAAAGT
CTCACATGGAAAAGTGAGTTCTGCCTTTCTTTTGATCGAGGGTCAAAAATACAAAGACATTTTTTGCTAGGGCCTAC
AAATTGAATTTAAAACTCACTGCCTGATTTCATCTGAGCTTTTGTTAGTATTTCATGGCTAGAGTGAACATAGC
TTTAGTTTTGCTGTGTAAGTGTTCATAAGTTCACTCAAGAAAAATGCAGCTGTTCTGAACTGGAATTTTT
CAGCATTCTTTAGAATTTTAAATGAGTAGAGAGCTCAACTTTTTATTCTAGCATCTGCTTTTGACTCATTTCTAG
GCAGTGCTTATGAAGAAAAATTAAAGCACAAACATTCTGGCATTCAATCGTTGGCAGATTATCTTCTGATGACAC
AGAATGAAAGGGCATCTCAGCCTCTCTGAAGTTGTAAGAACTGTGTCCCGAGTTCTTCCATCGGTGTAGTTGTTGC
ATTTGAGTGAATACTCTCTGATTTATGTATTTTATGTCCAGATTCGCCATTTCTGAAATCCAGATCCAACACAA
GCAGTCTTGCCGTTAGGGCATTGTAAGCAGATAGTAGAGTAAGAACTTAGTGACTACAGCTTATTCTTCTGTAA
CATATGGTTTTCAAACATCTTTGCCAAAAGCTAAGCAGTGGTGAAGTGAAGGAGGATATTGCCCCAAGGTTACAC
TGAAGCAGCTCATAGCAAGTTAAATATTGTGACAGATTTGAAATCATGTTTGAATTTCATAGTAGGACCAGTAC
AAGAATGTCCCTGCTAGTTTCTGTTTGATGTTTGGTTCTGGCGGCTCAGGCATTTTGGGAAGTGTGACAGGGT
GGAGTCAAAACAACCTACATATAAAAAGAGAAAAAGAGAACTTGTCATTTAGCTTTTATAAGAAATCCCATGG
CAAAGGGTAATAAAAAGGACCTAATCTTAAAAATACAATTTCTAAGCACTTGTAAGAAGGAGTGGGTTGGAGCC
TCCCACCTTTGTCCCTCCTTTGAAGTGGATGGGAAGTCAAGGTGCAAGAACCTGTTTGGGAAGAAAGCTTGGGGC
CATTTAGCCCCCTGTATTCTCATGATTTTCTCTCAGGAAGCACACACTGTGAATGGCAGACTTTTCATTTAGCC
CCAGGTGACTTACTAAAAATAGTTGAAATATTTCACCTAAGAATAGAATCTCAGCATTGTGTTAAATAAAAAATG
AAAGCTTTAGAAGGCATGAGATGTTCTATCTTAAATAAAGCATGTTTCTTTTCTATAGAGAAATGTATAGTTTG
ACTCTCCAGAATGTACTATCCATCTTGATGAGAAAACCTCTTAAATAGTACCAAACATTTTGAAGCTTTAAATTATG
TATTTAAAGTGAGTGTAAAGAACTGTAGCTGCTTCTTTTACAAGTGGTGCCTATTAAAGTCAGTAATGGCCAT
TATTGTTCCATTGTGGAAATTAAATTATGTAAGCTTCTTAATATCATAAACATATTAAATTTCTTCTAAAATATT
GCTTTTCTTTTAAAGTGACAATTTGACTATTCTTATGATAAGCACATGAGAGTGTCTTACATTTTCCAAAAGCAGG
CTTTAATTGCATAGTTGAGTCTAGGAAAAATAATGTTAAAGTGAATATGCCACCATAATTACTTAATTATGTT
AGTATAGAACTACAGAAATTTTACCCTGGAAAGAAAATATTGGAATGTTATTATAAACTCTTAGATATTTATAT
AATTCAAAAGAATGCATGTTTCACATTGTGACAGATAAAGATGTATGATTTCTAAGGCTTTAAAAATTATTTCATA
AAACAGTGGGCAATAGATAAAGGAAATCTGGAGAAAATGAAGGTATTTAAAGGGTAGTTTCAAAGCTATATATA
TTTTGAAGGATATATTCTTTATGAACAAATATATTGTAAGAAATTTATACTAAGGTATCTGGTAACTGTGGGATT
AATATGGTTCGAAAACAAATGTTATGGAGAAGCTGTCCCAAGCAAACTAAATTACCTGTACTTTTTTCCCATTTCA
AGGGAAGAGGCAACCACATGAAGCAATACTTCTTACACATGCCTAAGAAGGTTTATTGAAAAATAAATTTTTAA
AAGGCATGTGTTTCTATGCCACCAATACTTTTGAAAAATTGTGAACCTTACCCAAAACCATTTATCATGTCCAT
TAAGTATATTTGGGTATATAATTAGGAAGATATTTACATGTTCCATCTCCACAGTGGAAAAACTTATTGAGGCTA
CCAAAGTGTGCCAAGAAATGTAAGTCTTAGAGTAATTAGAAATGCTGTTTCTCCTCAAAAGCATGAGAACTAGC
ATTTTCATTTCTTATTTACTCCCTTTCTATATCAATGCAATTCACAACCCCAATTTTAAATACATCCCTATATCTCA
AGCATTTCTATCTTGTACTTTTTTCAGAAAATAAACCAAAAATAATCCTTGGTCTCTCTATCTTCTGACCTTGTA
GCAACAGAAATGTAAAAACAGAAGGGGTCCAATTTTTTACACGTTTTTTTCTCAAGTAGCCTTTCTGGGGATTTTT
ATTTTCTTAATGAAGTGCCAAATCAGCTTTTCAAATGTTTTCTATTTCTCAGCATTTCAGGAAGTGATAACGTT
TAGCTAAATGAGTAGAAGTGGACTTCTTCAACATATTGTTACCTTGCTAGCCTTAGGAAGAAAACAAGAGCCA
CCTGAAAATAAATACAGGCTCTTTTCGAGCATCTGCTGAAATACTGTTACAGCAATTTGAAGTTGATGTGGTAGG
AAAGGAAGGTGACTTTTCTTGCAAAGTCTTTCTAAACATTCACACTGCTTAAGAGATGAGCTTTCTTGTTTTA
TTCCGGTATATTCCACAAGGTGGCACTTTTAGAGAAAAACAATCTGATGAAGACTAAAGAGGTACTTCTAAAAG
AGATTTCAATTCTAAGTTTATTTTTCTGCGCATATTTAACTCTTCTAGCACTTGTTTTTTGGGATGATTAATAG
TCTCTATAATGTTCTGTAAGTTCAATATTTTACTTGTTACCTAGGTTCTGAACAATTGTCTGCAATAAATTGTT

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FIGURE 1257B

CTTAAGGATGGATAATACACCCATTTTGATCATTAAAGTAAAGAAAGCCTAGTCATTTCATTTCAGTCAAGAAAAA
 TTTTGAAGTACCCAGTTACCTTACTTTTCTAGATTAAAAACAGGCTTAGTTACTAAAAAGGCAGTCCTCATCTGT
 GAACAGGATAGTTTCGTTAGAAGTATAAACTCCTTTAGTGCCCCAGTTAAACACACATACCCTCTCTGCTGC
 TTTCAAATTCCTTAGCATGGTGGCCTTTCAACATTGATTAAATTTTAAATCCTAATTTAAAGATCAGGTGAGCA
 AATGAGTAGCACATCAGTAATTCAGTAGACAAAACCTTTGTCTGAAAAATTGCTGTATTGAAACAGAGCCCTAA
 AATACCAAAAGACCAGGTAATTTTAACATTTGTGGAATCACAAATGTAAATTCATAAGAAGCTCTAATTAAGAAA
 AAAAAGTCTGAAGTATATGAGCATAACAACCTTAGGAGTGTGTCTACATACTTAACCTTTGAAGTTTTTGGCAAC
 TTTATATACTTTTTTTAAATTTACAAGTCTACTTAAAGACTTCTTATACCCCAAATGATTAAAGTTAATTTAGAG
 GTCACCTTTCTCACAGCAGTGTCACTTGAAATTTAGTAGGGAAGGATATTGCAGTATTTTTCAGTTTCCTTAGCA
 CAGCACCACAGAAAGCAGCTTATTCCTTTTGAAGTGGCAGACACTCGACGGTGCCTGCCCAACTTTCTCTCTGAGT
 GGCAAGCAGATGAGTCTCAGTAATTCATACTGAACCAAAATGCCACATACACTAGGGGCAGTCAGAACTGGCTG
 AGAAATCCCCCGCCTCATTGCCCCCTCTGCTCCCAGGAACTAGAGTCCAGTTAAAGCCCCCTATGCGAAAGGCCGA
 ATTCCACCCCAGGGTTTGTATAACAGTGGCCAGTCTGAACCCCATTTGCTCGTGTCTCAAACTTGATTCCCCT
 TGAAAGCCTTCCGGGCGCGCTGCCTCGTTGCCCCGCCCTTTGGCAGGAGAGAGGCAGTGGGCGAGGCCGGGCTG
 GGGCCCCGCCTCCCACTCACCTGCCGGTGCCTGAAATTATGTGCGGCCCGCGGGCTGCTTTCCGAGGTGAGAGT
 GCCCTGCTGTCTCTCAGAGGCATCTGTTCTGCAAATCTTAGGAAGAAAAATGTCCCTAGTAGCAAACGGGTGTC
 TTCTGTGCATAAATAAGTACAACACAATTTCTCCGAAAGTTCGGGTAAAAAGAGATGCGGTAGCAGCTGCCCTGTG
 TGAAGCTGTCTACCCCGCATCTCTCAGGCGCTAAGCTCAGTTTTTGTGTTTTGTTTTGTTTTTAAAGAAAAGA
 TGTATAATGCAGGAATTTTTTTTTTATTTTTTATTTTCCATCATTCTATATATGTGATGGTGAAAGATATGCCT
 GGAAAAGTTTTGTTTTGAAAAGTTTATTTTCTGCTTCGTCTTCAGTTGGCAAAGCTCTCAATTCCTTAGCTTCC
 AGTTTCTTTTCTCTCTTTTTCTTTGTTAGGTAATTAAGGTATGTAAACAAATTATCTCATGTAGCAGGGGATT
 TCATGTTGAGAGGAATCTTCCGTGTGAGTTGTTTGGTCACACAAATAACCCTTTCTCAATTTTAGGAGTTGGAT
 TGTCAAATGTAGTTTTTTCTCAAAGGGGGCATATACTACATATTGACTGCCAAGAACTATGACTGTAGCACTAA
 TCAGCACACATAGAGCCACACAATTATTTAATTTCTAACTCTCTGTGGTCCCTAGAAAAATTCGGTTGATGTGCT
 TAGGTTAAAGTTCTGAAGATA^ΔCCGTTGTACCCTTACTTGAAAGTTTCTAATCTTAAGTTTTATGAAATGCAATA
 ATATGTATCAGCTAGCAATATTTCTGTGATCACCAACAACCTCTCAGTTTGATCTTAAAGTCTGAATAATAAAACA
 AATCCCAGCAGTAATACATTTCTTAAACCTCACAGTGCATGATATATCTTTTCTATTCTGATCCTGTGTTTGCAAA
 AATATACACATGTATATCATAGTTTCTCACTTTTTATTTCATTTGTTTTCTATTACCTGTAGTAAATATATTAGT
 TAGTACATGGAATTTATAGCATCAGCTACCCCCAGGAACAGCACCTGACAGGCGGGGATTTTTTTTTCAAGTTGT
 TCTACATTTGCATAAATTATTTCTATTATTATTTCATGTATGTTATTTATTTCTGAATCACACTAGTCCTGTGAAA
 GTACAACTGAAGGCAGAAAGTGTTAGGATTTTGCATCTAATGTTTCATTATCATGGTATTGATGGACCTAAGAAAA
 TAAAAATTAGACTAAGCCCCCAAATAAGCTGCATGCATTTGTAACATGATTAGTAGATTGAAATATATAGATGTA
 GTATTTGGGTATCTAGGTGTTTTATCATTATGTAAAGGAATTAAAGTAAAGGACTTTGTAGTTGTTTTATTAA
 ATATGCATATAGTAGAGTGCAAAAATATAGCAAAAATAAAACTAAAGGTAGAAAAGCATTTTAGATATGCCTTA
 ATTTAGAACTGTGCCAGGTGGCCCTCGGAATAGATGCCAGGCAGAGACCAGTGCCCTGGGTGGTGCCTCCTCTTG
 TCTGCCCTCATGAAGAAGCTTCCCTCACGTGATGTAGTGCCCTCGTAGGTGTCATGTGGAGTAGTGGAACAGGC
 AGTACTGTTGAGAGGAGAGCAGTGTGAGAGTTTTTCTGTAGAAGCAGAACTGTCAGCTTGTGCCTTGAGGCTTCC
 AGAACGTGTCAGATGGAGAAGTCCAAGTTTCCATGCTTCAGGCAACTTAGCTGTGTACAGAAGCAATCCAGTGTG
 GTAATAAAAAAGCAAGGATTGCCTGTATAATTTATTATAAAATAAAAGGGATTTTAAACAACCAACAATCCCAACA
 CCTCAAAAAGCTTGTTGCATTTTTTGGTATTTGAGGTTTTTATCTGAAGGTTAAAGGGCAAGTGTTTGGTATAGAA
 GAGCAGTATGTGTTAAGAAAAGAAAAATATTGGTTCGCGTAGAGTGCAAATTAGAACTAGAAAGTTTTATACGAT
 TATCATTTTGAAGATGTGTTAAAGTAGGTTTTCTACTGTAAATGTATTAGTGTCTGCATTGCCATAGGGCCTGG
 TTAACAACTTTCTCTTAGGTTTCAGGAAGACTGTCACATACAGTAAGCTTTTTTCTCTGACTTATAATAGAAAA
 TGTTTTGAAAGTAAAAAATAAATCTAATTTGGAAATTTGACTTGTTAGTTTCTGTGTTTGAAATCATGGTTC
 TAGAAATGTAGAAATTGTGTATATCAGATACTCATCTAGGCTGTGTGAACCAGCCCAAGATGACCAACATCCCCA
 CACCTCTACATCTCTGTCCCTGTATCTCTTCTTCTACCCTAAAGTGTTCCCTGCTACCCTCCTGGCTTGTG
 CACATGGTGTCTCCATCTTCTCCACATCATGGACCACAGGTGTGCCTGTCTAGGCCTGGCCACCCTCCCAAC
 TTGACCTAGCCACATTCATCTAGAGATGGTTCCTGATGCTGGGCACAGACTGTGCTCATGGCACCCATTAGAAAT

FIGURE 1257C

GCCTCTAGCATCTTTGTATGCATCTTGATTTTTAAACCAAGTCATTGTACAGAGCATTTCAGTTTTGGCTGTGGTA
CCAAGAGAAAACTAATCAAGAATATAAACACATTCCAGGCTGCTGTTTTCTCTCCATCTACAGGCCACACTTT
TACTGTATTTCTTCATACTTGAAATTCATTCTGCTATTTTCATATCAGGTACAGACTTATAAGGGTGCATGTTT
CTTAAAGGTGCATAATTATTCTTATTCCGTTTGCTTATATTGCTACAGAATGCTCTGTTTTGGTGCTTTGAGTTC
TGCAGACCCAAGAAGCAGTGTGGAAATTCAGTGCCTGGGACACAGTCTTATAAGAATGTTGGCAGGTGACTTTGT
ATCAGATGTTGCTTCTCTTTTTCTCTGTACACAGATTGAGAGTTACCACAGTGGCCTGTCGGGTCCACCCTGTGGG
TGCAGCACAGCTCTCTGAAAGCAAGAACCTTCCTACCTATTCTAACGTTTTTGCCCTCTAAGAAAAATGGCCTCA
GGTATGGTATAGACATAGCAAGAGGGGAAGGGCTGTCTCACTCTAGCAACCATCCCTCCATTACACACAGAAAGC
CCTCTTGAAGCAAAAGAAGAAGAAAGAAAGCTTATCTCTAAGGCTACTGTCTTCAGAATGCTCTGAGCTGA
ATGCTCTTGCTCCTTTCCCAAGAGGCAGATGAAAATATAGCCAGTTTATCTATACCCTTCCTATCTGAGGAGGAG
AATAGAAAAGTAGGGTAAATATGTAACGTAAAATATGTCAATTCAAGGACCACCAAACTTTAAGTACCCTATCAT
TAAAAATCTGGTTTTTAAAAGTAGCTCAAGTAAGGGATGCTTTGTGACCCAGGGTTTTCTGAAGTCAGATAGCCATT
CTTACCTGCCCCTTACTCTGACTTATTGGGAAAGGGAGAAGTGCAGTGGTGTCTGTTGTCAGTGGCAAAGGTAA
CATGTCAGAAAATTCAGAGGGTTGCATACCAATAATCCTTTGGAAACTGGATGTCTTACTGGGTGCTAGAATGAA
AATGTAGGTATTTATTGTCAGATGATGAAGTTCATTGTTTTTTTCAAAATTGGTGTGAAATATCACTGTCCAAT
GTGTTCACTTATGTGAAAGCTAAATTGAATGAGGCAAAAAGAGCAAATAGTTTGTATATTTGTAATACCTTTTGT
ATTTCTTACAATAAAAAATATTGGTAGCAAATAAAAAATAAAAAACAATAACTTTAACTGCTTTCTGGAGATGA
ATTACTCTCCTGGCTATTTTCTTTTTTACTTTAATGTAAAATGAGTATAACTGTAGTGAGTAAAATTCATTAAAT
TCCAAGTTTTAGCAGAAAAA

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FIGURE 1258

PYKWFSAQLALVTRGHRKYLLESLATCAF

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FIGURE 1259

GGGGCGGAGAGAGGCGAGCACCGGGAAGGGGAGCGTGGGGCCGCTGGAATGGGTGAATTTAAGGTCCATCGAGTA
CGTTTCTTTAATTATGTTCCATCAGGAATCCGCTGTGTGGCTTACAATAACCAGTCAAACAGATTGGCTGTTTCA
CGAACAGATGGCACTGTGGAAATTTATAACTTGTGAGCAAACTACTTTCAGGAGAAATTTTCCAGGTCATGAG
TCTCGGGCTACAGAAGCTTTGTGCTGGGCAGAAAGGACAGCGACTCTTAGTGCTGGGCTCAATGGCGAGATTATG
GAGTATGATTTACAGGCGTTAAACATCAAGTATGCTATGGATGCCTTTGGAGGACCTATTTGGAGCATGGCTGCC
AGCCCCAGTGGCTCTCAACTTTTGGTTGGTTGTGAAGATGGATCTGTGAAACTATTTCAAATTACCCAGACAAA
ATCCAGTTTGAAAGAAATTTTGATCGGCAGAAAAGTCGCATCCTGAGTCTCAGCTGGCATCCCTCTGGTACCCAC
ATTGCAGCTGGTTCCATAGACTACATTAGTGTGTTTGTATGTCAAATCAGGCAGCGCTGTTTCATAAGATGATTGTG
GACAGGCAGTATATGGGCGTGTCTAAGCGGAAGTGCATCGTGTGGGGTGTGCGCTTCTGTCCGATGGCACTATC
ATAAGTGTGGACTCTGCTGGGAAGGTGCGATTCTGGGACTCAGCCACTGGGACGCTTGTGAAGAGCCATCTCATC
GCTAATGCTGACGTGCAGTCCATTGCTGTAGCTGACCAAGAAGACAGTTTCGTGGTGGGCACAGCCGAGGGAACA
GTCTTCCATTTTCAGCTGGTCCCTGTGACATCTAACAGCAGTGAGAAGCAGTGGGTGCGGACAAAACCGTTCCAG
CATCACACTCATGACATGCGCACTGTGGCCACAGCCCAACAGCGCTGATATCTGGAGGCACTGACACCCACTTA
GTCTTTTCGTCCTCTCATGGAGAAGGTGGAAGTAAAGAATTACGATGCCGCTCTCCGAAAAATCACCTTTCCCCAC
CGATGTCTCATCTCCTGTTCTAAAAAGAGGCAGCTTCTCCTCTCCAGTTTGCTCATCACTTAGAACCTTTGGCGA
CTGGGATCCACAGTTGCAACAGGCAAGAATGGGGATACTCTTCCACTCTCTAAAAATGCAGATCATTTACTGCAC
CTAAAGACAAAGGGTCCTGAGAACATTATCTGTAGCTGTATCTCCCCATGTGGAAGTTGGATAGCCTATTCTACA
GTTTCTCGGTTTTTTCTCTATCGGCTGAATTATGAACATGACAACATAAGCCTCAAAGGGTTTTCCAAATGCCA
GCATTCTTCGCTCTGCCCTTCAGATTTTGTCTTCTGAAGATTCAACAAAGCTCTTTGTAGCATCAAATCAAGGA
GCTCTGCATATTGTTTCAGCTGTCAGGAGGAAGCTTCAAGCACCTGCATGCTTTCCAGCCTCAGTCAGGAACAGTG
GAGGCCATGTGTCTTTTGGCAGTCAGTCCAGATGGGAATTGGCTAGCTGCATCAGGTACCAGTGCTGGAGTCCAT
GTCTACAACGTAAAAACAGCTAAAGCTTCACTGCACGGTGCCTGCTTACAATTTCCCAGTGAAGTGTATGGCTATT
GCCCCCAATACCAACAACCTTGTCTATCGCTCATTTCGGACCAGCAGGTATTTGAGTACAGCATCCCAGACAAACAG
TATACAGATTGGAGCCGACTGTCCAGAAGCAGGGCTTTACCACCTTTGGCTCCAAAGGGATACTCCTATCACA
CACATCAGTTTTCATCCCAAGAGACCGATGCACATCCTTCTCCATGATGCCTACATGTTCTGCATCATTGACAAG
TCATTGCCCCCTTCCAAATGACAAAACCTTACTCTACAATCCATTTCTCCACGAATGAATCAGATGTATCCGG
AGGCGCACAGCTCATGCTTTTAAATTTCTAAGATATATAAGCCTCTACTCTTCATGGATCTTTTGGATGAAAGA
ACACTCGTGGCAGTAGAACGGCCTCTGGATGACATCATTGCTCAGCTCCCACCACCCATTAAAAAGAAGAAATTT
GGAACCTTAAACAGGGCACTGTCTGTGTCCTTCTTGAAGTGTCTACCCTGTTGCTTTTACAAATCATGGTAAT
AAAACAAGTTATTCTTG

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FIGURE 1260

MGEFKVHRVRFFNYVPSGIRCVAYNNQSNRLAVSRDGTVEIYNLSANYFQEKFFPGHESRATEALCWAEGQRLF
SAGLNGEIMEYDLQALNIKYAMDAFGGPIWSMAASPSGSQLLVGCEDGSVKLFQITPDKIQFERNFDRQKSRLS
LSWHPSTHIAAGSIDYISVFDVKSGSAVHKMIVDRQYMGVSKRKCIVWGVAFLSDGTIISVDSAGKVQFWD SAT
GTLVKSHLIANADVQSI AVADQEDSFVVGTAEGTVFHFQLVPVTSNSSEKQWVRTKPFQHHTHDMRTVAHSPTAL
ISGGTDTHLVFRPLMEKVEVKNYDAALRKITFPHRCLISCSKKRQLLLFQFAHHLELWRLGSTVATGKNGDTLPL
SKNADHLLHLKTKGPENIICSCISPCGSWIAYSTVSRFFLYRLNYEHDNISLKRVS KMPAFLRSALQILFSEDST
KLFVASNQALHIVQLSGGSFKHLHAFQPQSGTVEAMCLLAVSPDGNWLAASGTSAGVHVYNVKQLKLHCTVPAY
NFPVTAMAIAPNTNNLVIAHSDQQVFEYSIPDKQYTDWSRTVQKQGFHHLWLQRDTPITHISFHPKRPMHILLHD
AYMFCIIDKSLPLPNDKTLLYNPFPPTNESDVIRRTAHAFKISKIYKPLLMDLLDERTLVAVERPLDDIIAQL
PPPIKKKKFGT

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FIGURE 1261

GAATTCGGCACGAGAATGAGCCCCACAGAATAAAGGTTTTCTCTTGCTGTGGCCTACTGGAAGCCTTCCTAAC
TCTATAGCTGGTAAAGTAGAGCAGAAAGGGCCAGAATGGCTTAAGATGGAGCTAAATCCCTATAGCATTCCATTT
TCTGCTCTTGCCCTCTTGAACCTAGAAAGGCTTGCCCATATATCCTAACAATCTGTTCTCTGAGCTGTTAGGCCAAT
CCCTGGTCTCAAACCTCCTGACCTCAGGTGATCCACCCACTATGGCCTCCCAAGGTGCTGGGATTGCAGATGTGAG
CCACCGTGCCCTGGCCAGAAAATCTGGATTCTTATTCCTAGTTCTTCATTCTGTGCACATGCACCTTAGTTGACATT
ACATCTACATATATTAGCTTTTTCTACATGAGCCATCTATTTACTTAGTAACCAAGTGTCTTAATGAAGTATTT
AGTCTTGGGTTTTCTTGTAATAATTTCTCTGCATTCTCTTAGACAGTGTACTATACATGAAATATTCTTGTTGACCTA
GTAATTTATATTATTCCATTTAATTCTTAAACCTATGGCCTTTTTATTGAGCACACTCTTAAATCATTATTTGGC
TTGTAAACATTTCATCTGAATTGTGGCTACAATCCTCTTTAAATAATCTAGGAAAAAAGAAAGATAAAGCTTACAT
TTTCACAGTTTTGGCTCTTAAACACATTCCACAAATGCCATTAAGAATTTATTTTGTGTTTTAGGCCAGTCATGGTG
GCTCATGCCTGTAATCCCAGCAATTTGGGAGGCTGAGGCAAGAACTGCTTGAGCCCAGGAGTTTGAGACTAGCCT
GGGCAACATAGCAAGACCCTGTCTCTACCAAAAAAAAAAAGTTTTATTTTGTGTTTTAGAGTCATTTAATGTGTTTT
TATGCACAATAATAGTGGGAGGTTGTTTTGTGTCATTTGTTTGTGTTTTGTTTTGTTTTGTTTTGTTTTGCCAT
GTGGGAAAAGTTAACATTGGAAGTGTCTTAGTAAAAGATTTTTTTCAGGCTGGGCACGGTGGCTCATGCCTGTG
ATCCCAACACTTTGGGAGACCGAGGGAGCTGGATCACCTGAGGTCAGGAGTTCGAGACCAGCCTGGCCAACATGG
AAAACTCCATCTCCACTAGAAATACAAAAGTAGCCTGGTGTGGTGGCACATGCCTGTAATCCCAGCTACTTGGG
AAGCTGAGGCAGGAGAATCACTTGAACCTGGGAGGTGGAGGTTGCAGTGAGCCAAGATCACGCCATTGCACTCCA
GCCTGGGCAACAAGAGTGAACTCCGTCTCAAAAAAAAAAAAAAAAAAAGATGTTTTTCATTTTTTCATGTTATC
TATCCAAGCACTGTTCCATGGTCAGCAAGTCATATTTTATAATGTGGATTTTCCAAAATAATTATTGAATACAGC
TATTCTATGGCTACTTTTAGTGTTTTTGTGGTATGTGGTGTGGGAGTGTGTTATGGAATTACCAGTATCTTAAATT
TTCAAAGGAACCTTGGAAGTCTATCACTCTAAATGAAAGTCTGTCACTCTACATGAATTATGTGCTCAAATTTGA
CCAACCTCAGTTTAAAGACACAAAACAGTAATTTGAAGAAGGAAAAATGAAGAGAGTTTCTAGTTTAAATGGGTAA
TTTTTGTGTTGCAATAGTAAGTTTAGTCTTCTTATAATATTTCTAAATGAAAAATCATAGGTATTTGTTACCAT
GTGTGAAGATTACTTTGTGTTAAAGCAAAAGTGGTCTGTGTGATATGCTAAATGTGTAATTACTGATTTTATATGTTT
AAATCACGCCAAACAAATTATGTCTGTGCCATCCAGGGTCTGTTGTTAATCTTTTTCTGAGTACTTGGATTGGGA
TAAAGGGCTTGTAATATGCACTTTTTTATTAATGAATAAATAGAAAACGTTAGTAACACTTTGTGTTTTCTGTTTG
GCTTTTTGTGGGAAGAGAAGCAAGCATCTTTTGCCTAGTAGATGTTAACATTGTGTATTAAACAGTTTCTTTGTAA
GACCTAACTAAAGACATTCTTAAGAGAGAAGTAAAGTTTTAAGAAAAGTTGTGAGAAAAATATTCATAAAATATG
CAGTATGGGGCCAGTATTCAGAAGTAGAGTTTCTCTCTTGGAATTAGATTGCAGTCACATTTCTTTGGTTATTT
TCTTTCTCTCTCTCTTCTAGAAATACCAGGTAAATAGACATTTACTTTGAGGGACTAATATCCAATAGTGTTAA
TTATTTAAGCAGATATATCTAGCTCAAAAGGAACCAGACATGTCACTGTACCAAAAACACACAAAAGTGAAAATT
TGCTTCTGTTCTGTGACCTAGAATGTGTCCAGACATTAAAGATCATGAATACTCATATACATGTAAAAATAGTAA
CACTGCTCTGGCATGATTTTGACGTCAGTGTGTTATGTAATAACTTCAGTGTATATTTAAATAGATAAATTTGT
GAAATAACAATTTCTTGAGACAGTCAACTTTTTATGATTTAATCTAAAGATTGTGATGTACATGTCAACGGATA
TCTGAATCCTCAGTGAACTGTTAAGTTTTCAITAAATGACTCTGCTGCAATACTAGTTTTCTTCTCAGAAAATG
GAATTCAAATAAAATAAGTTTTTGGTCTTGGAIAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 1262

MHLVDITSTYISFFLHEPSIYLVTSVLNEVFSLGFLVKFLCIP

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FIGURE 1263A

AGCGGCCGCCAACGCCGCCGGACTGGAGCCCTGACATTGCTGCGCTCGGGGGGCTCCAGGCAGCCCGTATCGGG
 GCCTTTATTTCTCGTCGGCGGCGCCCTGCACCGCGCCTCGCAAAGCCAAACACCAGAGCACCCCTAGAAGGTTTAA
 CTAAGAAGATGCTCATGTTTGACCCAGTTCTGTCAAGCAAGAGGCCATGGACCCTGTCTCAGTGTCATACCCAT
 CTAATTACATGGAATCCATGAAGCCTAACAAGTATGGGGTCATCTACTCCACACCATTGCCTGAGAAGTTCTTTC
 AGACCCCAAGGTTCTGTGCGACGGAATACAGATGGAGCCAGTGGACCTCACGGTGAACAAGCGGAGTTTACCCC
 CTTGGGCTGGGAATTCGCCCTCCTCTCTGAAGTTCCCGTCTCACACCGGAGAGCCTCGCCTGGGTTGAGCATGC
 CTTCTTCCAGCCACCGATAAAAAAATACTACCCCTTCTCCAGGCGTGCAGCCCTTCGGCGTGCCGCTGTCCA
 TGCCACCAGTGATGGCAGCTGCCCTCTCGCGGCATGGAATACGGAGCCCCGGGGATCCTGCCCGTCATCCAGCCGG
 TGGTGGTGAGCCCCGTCCCCTTTATGTACACAAGTCACCTCCAGCAGCCTCTCATGGTCTCCTTATCGGAGGAGA
 TGGAAAATTCCAGTAGTAGCATGCAAGTACCTGTAATTGAATCATATGAGAAGCCTATATCACAGAAAAAATTA
 AAATAGAACCTGGGATCGAACCACAGAGGACAGATTATTATCTGAAAGAAATGTCACCCCCCTTAATGAACCTAG
 TGTCCCCCCCCGCAAGCATTGTTGCAAGAGAATCACCTTCGGTCATCGTGCAGCCTGGGAAGAGACCTTTACCTG
 TGAATCCCCGGATACTCAAAGGAAGCGGAGGATACACAGATGTGATTATGATGGATGCAACAAAGTGACACTA
 AAAGCTCCCCTTGAAAGCACACAGAAGAACACACACAGGAGAAAAACCCTACAAATGTACATGGGAAGGGTGCA
 CATGGAAGTTTGCTCGGTCTGATGAACTAACAAGACATTTCCGAAAACATACTGGAATCAAACCTTTCCAGTGCC
 CGGACTGTGACCGCAGCTTCTCCCGTTCTGACCATCTTGCCCTCCATAGGAAACGCCACATGCTAGTCTGATTGTC
 CTCTGTGCTCCTGCCTCAGCGTGACTCCCACTCACCTGGCTCTCTCTGTCTGCTGCCCTCCATTATCTAACACAT
 TTTTACATGTACATTTTAATTTGATTGAGCTGGTCTGAATCTCTGAATTTATATCATCCAAAACCTCCATATGG
 TCAGTAGTAGATGTTCTCTAATCCTCCCTCTCCTTACCACGGGTGAGACCTAAAGAATGTGAACACTTTTTTTT
 TTTTCTGGGGATGCTAAGCAAACCTTCTTACAGATACGTTTAATGTAATAAGAACAAGGGAACATGTAAACTA
 ACATAACCAATTGTCAGTTCTCCATGTATTCTCAAAGAATGTCAGAGTAAATGTATTAGAAATACAGTATCCA
 GACTGCTAGTCTTGCCAGAGACATTCTTACCTCTGCCCTGTGATAATTTTTATGCTTGACAGTGAAAACAAGT
 GTGGCCCTTGACCGGTTAGCTAGAAGTACAGCCAGATTTCAAGCTAGTGCAGTCACCTCTTCCGTCATTCTTC
 ACAAATCTTGTCACCTGGATCTTAGACTTCATCTGAATCGAGTTCTTTGCCCTCCTTTGTGCTGCAGCTCATA
 TGGAGGTCTTTGCCACCAATGGGAGATGAGCCCAAACCTTCGATCTAGGTGGGTGATGTGTAGCAGTTCAAGGGA
 AGGGTGCTGTGTTTTTCATAGCATGGAGTGGAGGAGAGGGCCATTTAGCAGGGGGAGCAGAAGAGGCAATTCCTC
 CTGGGCTAGGGGTGTGTAATGAGGTTTCAACATTTTGTAGCTGTGTGCAGCATTCCCAGAGCTTCAGTCTCTGT
 GCATACTCAGCTTTGTAGAACCATGCTGCAAAGCCATATACCGATGGGGTTATCCATGCAACTATCTCCATTCTT
 ACAATGTCCTTAATATGAGATCATCAAACATTGATAGTAGGGACTCCATGGAATATTTGCCAGTAATGGTAAGA
 AATCTTTCCGGTAAGAGTATGGATGGTTCTTCTTTTACCCAATCTGCTTATAGCTTTTTTTGTAAACAGGGAAAT
 GTTGAGTGGTACTTGTATTCCCTTATCAAATTAATCACATAGCTTTTATACAGAACTCTTCTGTGTGAGCTGT
 TAAGGTGCCAAATTTGGCTGTCAATTTGTATTATGACACATACCATAAAGCATCTGCTAATGCTTTAATGGATTGA
 TTCAATTAAGACCTGAGTGACACTATTTGTAAATATAACTAGTTGTGAAGCACACATACCTTTATTTTGGGAATT
 TATGAGAAAATATAGAAAACCACAGATCAGGGATTATATATGTAGCTCAAAAATTTCCAAAAGTTTACTGTTAG
 AGTTGGCAATTTCTATCACTATTTTCAAGTGTGAGAACAACTGAAAATAATGGCTCGTGTATGTTGAAGATAA
 ATAGCACCATTATTGGGGGAAGTTATTTCAAAGCAGGCTTTTGAGCACCATAGTCTAAATGCCAATAAAAAATAAT
 TCATACATAGAAATGTCATTGGTCTGAATTTGAAGAAAGTGAGCAACAGTAGTTAAATGTGGGTGCATATAACC
 AAATTCCCCTTATCAAGAATGGAGGAGAAGAGAGAAGAAATGAAATCCTGAAGATTATCCCAGCCGCAACTCAG
 GATCCAACACAACCTTTAACTGGGAGGAATACATTGTTTGATCATTTTTTAAACATCTGTGAATGAGTGATTCCGG
 AGGCCTGTGAATTTGTGTTGGGAGCTTGCTTTGATGGCACTGTGTTAATAAAAGTTGTAGGGACTGTGCACCTAAG
 AGGCTAAGAGGTCCCCTCATCCGCCCTGTGAACCAGCTGTAAAGAAATGTAGTTAAGAAATGCAAAGAAATGTG
 TTATCTTGGCACTTGGGTTTGAATTTTCTTTTTTAAAGCACTGCAAAAACCTTCTTTAGGATACTAAAACATCCTA
 ATTGGGCTGTTTTTTTGTGTTTTGTTTTTTCAGCTAAAGGCAAGATAATTTTTTTTTCAGCTGAAGTTTTTC
 TTTTTTGCAACTATGACATGAATTGAGTGATAAAATGGCTCTTTGAAAAGTAGATATTGTCTGTATTGTAAATGC
 TTAGTCATATTATGCAAGTGTTCATTTCTTGAGATGGTTCTTTCACAACACACAAGAAATCAAGATGGAACGC
 AAGGAAATCTTTTTGTTTTGACCGAGGTAACAGTTTATGTGTGTTCCAATCCATAGAGAAGTGGGGGAAAGGG
 CGAGAAAGGATCAGATTGATCTGGGATCAGCTTTGAGCCTGAGTTCAAGTGAATAGCCTCATGGGCATCTCATGGA
 ATTGATGCATTGCTGTGGCATATTTAAATTTTGTTCAAAAGATTGAAGCAAGACCTTGCAAAGACTCTTAACA

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FIGURE 1263B

TTACTGTTTCAGCTTGCTTAGATTGTGTTAACAGTTCATTTAACAAAGATCCGTTTTAACTCTGAACAAAAGCAAC
CCAGAGCGGCCATTCTCTATTCCCATGCTGGTCAATACGCTTTCATTACCAATTGGCCCTTACCAAACTTTTCTT
ATATATATATTTGTATTTTACTATGATAGTTGAGAAATTTAGCCTCTTAGTCATTTTTAGCTGTTATTGTGGAAG
ACCTCAAATACAAGATTAGATGCCCTTGAACATGTTTTAATGATGTGTGTCATGTTACTATCAATGGTGATTTC
ATCGCAATATTTTAAATTGATGAGAATGATTTGTAAACATGAAGTTACTATTACGTAAATTCTGTTTGTTATAGA
GTTTCTTCAGTTGTTACCCAAGTGTCATCCTAGAGAAGTCAGAAGAATCAGAATCCATCGTATTTTAGAGTTATG
TGAATCTACATCATAAATGGGCATTAACATTCTAAATTGCTTGGTTTGGAGAATGTGTTAGCAGCATAGCTATAT
TCAACTAGGGAGATGCTAAATACACAGAAGTTTCAAGAGCCTTGGAACAGAATTACAGGGGAAGTATATATGTAT
ATGTATATTTTATTAAACACCCATCTGCACTATCAGTATTGCACTAATGTGGAATTTGAAAGACTATTTTGCTGA
TACTGTATATATGCGCATCATTCTGATTAGATTGTTGTAAAGACAATCTGAAAGATCTAAGGTTTTAAATAAT
TTGGTTTGAAAATATACAGTTGTCTTGAAGGAATTGCTGTACATGAAGTTGCTCCGAGCTGTCTTTATTCTC
TTCTTGGTCAAGGTTAACAATTGCTAAATGATCGCAAATTCACCTAAACAATACATTTACAAAGCCATCTTTACA
TGCATTAAACGAGGGCTACAACAATATTGTTTTACAAATACTAGCACTTTTTTTTCTGTTATGTACTTAGTGTTA
GAGGGTCAAATAATCTTTCTGCTTAGCATCTCTTAAACCATACTGCAAATATAGCAGGATTATTACATTTACA
GTACTTTAATACTTGTATAAACTATGCAGAAATTTTAAATAAAGTGTAATATATTTTATAAGCTAATAAGACTGA
ATGGGTAAAGGTTTTTAGCATGCGTTAGTATACTTGCAGATACTGAAACATTTTGGTAATCTTTCTTACTAAAGA
TGTGAATGTTAATGTACCTTCTCTGTTTCTACTCTGTAGTCCAATGGGAATTCAGTAATGACATTTTGTCTATGT
CAAATGTGAACATAAATTTGTACTGTACAGTCCTCATATACTATATACAGTATGCAATATATATTATATACTTG
TTAATAAAACCATCAGAATATTAAAAAAATCTATGTCGGGTGCGGAGAAAGAGGTAATGAAATGGCAGGAATTC
GATATCAGC

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FIGURE 1264

MLMFDPVPVKQEAMDPVSVSYPSNYMESMKPNKYGVIYSTPLPEKFFQTPEGLSHGIQMEPVDLTVNKRSSPPSA
GNSPSSLKFPSSHRRASPGLSMPSSSPPIKKYSPPSPGVQPFQVPLSMPPVMAAALSRHGIRSPGILPVIQPVVV
QVPVPMYTSHLQQPLMVSLSEEMENSSSSMQVPVIESYEKPI SQKKIKIEPGIEPQRTDYYPEEMSPPLMNSVSP
PQALLQENHPSVIVQPGKRPLPVESPD TQRKRRIHRCDYDGCNKVYTKSSHLKAHRRTH TGEKPYKCTWEGCTWK
FARSDDELTRHFRKHTGIKPFQCPDCDRSFSRSDHLALHRKRHMLV

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FIGURE 1265

GGCACGAGGCCTTCGGCCACCCCGCTGACCATGGCAGTGTTTCATGACGAGGTGGAAATCGAGGACTTCCAATA
TGACGAGGACTCGGAGACGTATTTCTATCCCTGCCCATGTGGAGATAACTTCTCCATCACCAAGGAAGATTTGGA
GAATGGGGAAGACGTGGCAACGTGTCCTAGCTGCTCTCTCATTATAAAAAGTGATTTATGACAAAGATCAGTTTGT
GTGTGGAGAAACAGTCCCAGCCCCTTCAGCCAACAAAGAATTAGTTAAATGCTTGAAGAAGCCTTCAGGAATCCAA
ATCCTGAACATTTGGAATGAGCCCAGATAGAAATATCGAATGCAAAGCTACTGGCTTCACAGAGACAACCATTTA
TGATTTGCTGTTCTGTAAGAGTGTGGATTCTTTCTATCAACTGCTGATATCATCTTCAGGAAGCAAGTCCATAAC
ATGACATATCTGGATTTTGTGCTTAGAACCTTAAATTGGAAGCATTCTTAATTATGCATCTAAATTTAAAAGAAG
ATAATTTCAAAACAGTAAAAAAAAAAAAAAAAA

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FIGURE 1266

MAVFHDEVEIEDFQYDEDESETYFYPCPCGDNFSITKEDLENGEDVATCPSCSLIIKVIYDKDQFVCGETVPAPSA
NKELVKC

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FIGURE 1267

GGCACGAGGCCAGATACTACTGGCCATCAAGGGACAGAAGAAAAAGGCGCTCATTGTGGGGCACTGCATGCCTGG
CCCCCGAATGACCCCCAGATTCGACTCCAACAACGTGGTCCTCATTGAGGACAACGGGAACCCTGTGGGGACACG
AATTAAGACACCCATCCCCACCAGCCTGCGCAAGCGGGAAGGCGAGTATTCCAAGGTGCTGGCCATTGCTCAGAA
CTTTGTGTGAGTTGAGCCCAGGCCTCTGGTTGCAGGACTCGTGAATGGAGCAGTTCTGAGAACCACCCTTTTGCT
AAGGGAGCTTGGGAGCCACATGGCTGCTCCCTTCACACTGGGTAACAGTGTAGTATCCTGTGAGAGAATAAATGT
ATTCATTTAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 1268

TCATGGCCGGCTCCTACCCTGAAGGTGCACCTGCAATCCTCGCCGATAAGAGGCAGCAGTTCGGAAGCCGGTTCC
TGAGCGATCCGGCGCGGGTCTTCCACCACAATGCCTGTTGATTATGAGATCAATGCCACAAATACTGGAATGAC
TTCTACAAATCCACGAAAATGGGTTTTTCAAGGATAGACATTGGCTTTTTTACCGAATTCCTGAGCTGGCACCT
AGCCAAAATCAAAATCATTGAAGGATTGGTTCTTGGAGAACAAGAGTGAAGTATGTGAATGTAGAAACAATGAG
GATGGACCTGGTTTAATAATGGAAGAACAGCACAAAGTGTTCTTTCGAAGAGCCTTGAACATAAAACACAGACACCT
CCTGTGGAGGAGAATGTAACCTCAGAAAATTAGTGACCTGGAAATTTGTGCTGATGAGTTTCCTGGATCCTCAGCC
ACCTACCGAATACTGGAGGTTGGCTGTGGTGTGGGAAACACAGTCTTTCCAATTTTACAAACGAACAATGACCCA
GGACTCTTTGTTTATTGCTGTGATTTTTCTTCCACAGCTATAGAACTGGTCCAGACAAATTCAGAATATGATCCT
TCTCGGTGTTTTGCCTTTGTTTCACGACCTGTGTGATGAAGAGAAGAGTTACCCAGTGCCCAAGGGCAGTCTTGAT
ATTATCATTCTCATATTTGTTCTTTTCAGCAATTGTTCCAGACAAGATGCAGAAGGCTATCAACAGGCTGAGCAGG
CTTCTGAAACCTGGGGGGATGGTACTTCTGCGAGATTACGGCCGCTATGACATGGCTCAGCTTCGGTTTTAAAAA
GGTCAGTGTCTATCTGAAAATTTCTATGTGAGAGGTGATGGAACCAGAGTTTACTTCTTCACACAAGAGGAACTG
GACACGCTTTTACCACCTGCTGGACTGGAAAAAGTTTCAAGACCTGGTGGACCGCCGACTGCAGGTGAACCGAGGG
AAGCAACTGACAATGTACCGGGTTTGGATTCAAGTCAAAATACTGCAAGCCCCTTCTGTCCAGCACCAGCTAAGAG
GCACCTGCTGCCAACACGATGCAAGCCCGTTGTGTTTCCGAGCTTTTTTAAAAAAAATTTGTAGCACCAGGGCA
TGGTGCATGCCTGTAATCCCAGCCACTCAGGAGGCTGAGGCAGGGAGGATCCATTGAGCCCAGGAGTCCAGCCTG
GGCAAAATAGCGAGAGACCCTGAATCTGAAAGTAATGATAAAATAAAAAGAATATAAATGAGGTCTCGTTGATGC
TGGACAATTCAAGAATTCAGACTTGAACCTTAAACCTAGGAAAAGTTACTTTGTATCAGGATTCTAACAATTATG
CTTCATATTTGTGAAGTCCTTTAAACATAATTTTCTCAAGTTCTTTCTTTGAGACCTCAATCTGTCTTAGCATT
TTGTAATAATAACTGAAATTTTATTCAAAGGAATTGTAAACCTTAAACCACCAATTTATTTCCATGTGAAAAAG
TGTTATATATGACAAGTGTTTTTTGATTGTAATTGCGTTAAATCTTTGAGAGTGTAATGCCGGGCTAGGCAAT
TGCAGTTAATACATACAGGGGTTAGTGAAGGGCTTATTAAGTTGTAGGGGAAGCAAGCTGGGAAGAATCAGATCA
GATATTTTCTGAC

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FIGURE 1269

MPVDYEINAHKYWNDFYKIHENGFFKDRHWLFTEFPELAPSQNQNHLDWFLENKSEVCECRNNEDGPGLIMEEQ
HKCSSKSLEHKTQTPPVEENVTKISDLEICADEFPGSSATYRILEVGCVGNTVFPILQTNNDPGLFVYCCDFS
STAIELVQTNSEYDPSRCFAFVHDLCDDEKSYVPKGSLDIIILIFVLSAIVPDKMQKAINRLSRLLKPGGMVLL
RDYGRYDMAQLRFKKGQCLSGNFYVRGDGTRVYFFTQEELDTLFTTAGLEKVQNLVDRRLQVNRGKQLTMYRVWI
QCKYCKPLLSSTS

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FIGURE 1270

GC GCGGACCTTTCAACAAGGGCTTTATTAATTCTCAGCTGCGGCCCTGGAAAGCGATGGAGGTGGCGGCTAATT
GCTCCCTACGGGTGAAGAGACCTCTGTTGGATCCCCGCTTCGAGGGTTACAAGCTCTCTCTTGAGCCGCTGCCTT
GTTACCAGCTGGAGCTTGACGCAGCTGTGGCAGAGGTAAAACTTCGAGATGATCAATATACACTGGAACACATGC
ATGCTTTTGGAAATGTATAATTACCTGCACTGTGATTTCATGGTATCAAGACAGTGTCTACTATATTGATACCCCTTG
GAAGAATTATGAATTTAACAGTAATGCTGGACACTGCCTTAGGAAAACCACGAGAGGTGTTTCGACTTCCTACAG
ATTTGACAGCATGTGACAACCGTCTTTGTGCATCTATCCATTTCTCATCTTCTACCTGGGTACCTTGTCAGATG
GAACTGGAAGATTGTATGTCATTGGAACAGGTGAACGTGGAAATAGCGCTTCTGAAAAATGGGAGATTATGTTTA
ATGAAGAACTTGGGGATCCTTTTATTATAATTACAGTATCTCACTGCTAAATGCTGAAGAACATTCTATAGCTA
CCCTACTTCTTCGAATAGAGAAAGAGGAATTGGATATGAAAGGAAGTGGTTTCTATGTTTCTCTGGAGTGGGTCA
CTATCAGTAAGAAAAATCAAGATAATAAAAAATATGAAATTATTAAGCGTGATATTCTCCGTGGAAAGTCAGTGC
CACATTATGCTGCTATTGAGCCTGATGGAAATGGTCTAATGATTGTATCCTACAAGTCTTTCACATTTGTTTCAGG
CTGGTCAAGATCTTGAAGAAAATATGGATGAAGACATATCAGAGAAAATCAAAGAACCTCTGTATTACTGGCAAC
AGACTGAAGATGATTTGACAGTAACCATACGGCTTCCAGAAGACAGTACTAAGGAGGACATTCAAATACAGTTTT
TGCCTGATCACAATCAACATTGTACTGAAGGATCACCAGTTTTTAGAAGGAAAACCTCTATTCATCTATTGATCATG
AAAGCAGTACATGGATAATTAAAGAGAGTAATAGCTTGGAGATTTCTTGATTAAGAAGAATGAAGGACTGACCT
GGCCAGAGCTAGTAATTGGAGATAAACAAGGGGAACCTTATAAGAGATTTCAGCCCAGTGTGCTGCAATAGCTGAAC
GTTTGATGCATTTGACCTCTGAAGAACTGAATCCAAATCCAGATAAAGAAAAACCACCTTGCAATGCTCAAGAGT
TAGAAGAATGTGATATTTTCTTTGAAGAGAGCTCCAGTTTATGCAGATTTGATGGCAATACATTAAAACTACTC
ATGTGGTGAATCTTGAAGCAACCAGTACCTTTTCTCTGTCATAGTGGATCCTAAAGAAATGCCCTGCTTCTGTT
TGCGCCATGATGTTGATGCCCTACTCTGGCAACCACACTCCAGCAAACAAGATGATATGTGGGAGCACATCGCAA
CTTTCAATGCTTTAGGCTATGTCCAAGCATCAAAGAGAGACAAAAAATTTTTTGCCTGTGCTCCAAATTACTCGT
ATGCAGCCCTTTGTGAGTGCCTTCGTCGAGTATTCATCTATCGTCAGCCTGCTCCCATGTCCACTGTACTTTACA
ACAGAAAGGAAGGCAGGCAAGTAGGACAGGTGCTAAGCAGCAAGTAGCAAGCCTAGAAACCAATGATCCTATTT
TAGGATTTTCAAGCAACAAATGAGAGATTATTTGTTCTTACTACCAAAAACCTCTTTTTAATAAAAGTAAATACAG
AGAATTAAATTATTCTAACATATTGGCCTCTTTGTACTGGAAAAAGTATTCAGTGGTACCTGGAGGTCTGGACAGTT
ATACTGTAAACCTCTTAAGTTTTAATGTGCTAAATATACTTGTATGATTTTTTTATTTTTTAATAACATTGGAAAT
ATATTCAAGAGATTATGATTCTGTAAAGCTGTGGAATGAAGCTGCAGATTTAGAGAACATTGGCTTCTGAAAAAA
AAAAAGAGTGAAGATAGTACTAGCAAGTATACTTATTTTTTAAACAGGCTAGAATCTCATGTTTTATATGAAAG
ATGTACAATTCAGTGTTTAAAAATAAAAAATTTTATTGTGTAAAAAAAAAAAAAAAAA

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FIGURE 1271

ADLSTRALLILTLRPWKAMEVAANCSLRVKRPLLDPRFEGYKLSLEFLPCYQLELDAAVA EVKLRDDQYTLEHMH
AFGMYNYLHCDSWYQDSVYYIDTLGRIMNLTVMLDTALGKPREVFRLPTDLTACDNRLCASIHFSSSTWVTLSDG
TGRLYVIGTGERGNSASEKWEIMFNEELGDPFIIHSISLLNAEEHSIATLLLRIEKEELDMKSGGFYVSLEWVT
ISKKNQDNKKYEIIKRDILRGKSVPHYAAIEPDGNLMIVSYKSFTTFVQAGQDLEENMDEDISEKIKEPLYYWQQ
TEDDLTVTIRLPEDSTKEDIQIQFLPDHINIVLKDHFLEGGKLYSSIDHESSTWIIKESNSLEISLIKNEGLTW
PELVIGDKQGELIRDSAQCAAIAERLMHLTSEELNPNPDKEKPPCNAQELEECDIFFEESSSLCRFDGNTLKTTH
VVNLGSNQYLF SVIVDPKEMPCFCLRHDVDALLWQPHSSKQDDMWEHIATFNALGYVQASKRDKKFFACAPNYSY
AALCECLRRVFIYRQPAPMSTVLYNRKEGRQVGQVAKQQVASLETNDPILGFQATNERLFLVLTTKNLFLIKVNTE
N

FIGURE 1272A

GGGTGGCGGGGGTTGCAAGTGGGAAGCCTGCTGTTTCAGCTGCCCCGGGCTCTCCGCCTCCCCCACCCTGTATTG
AGGCTGGGTCTGGGGAACCTGTGCTCAGCATTCCACCCCCTGGAGCTTGGGCTTGGTCTTCCCTGCGGGTCCCTG
CGCTGACATTCAGGCGGGGAGCCAGGAGGCCTGGGCGCCTCCAGAGCCCCCGGGGGAGCCGGGCGAGGGTTCTG
GGCTCTGACGGCGGGGTCGAGGGTCGCCCCGCTCCTGGACACGTCTGTAGGCCTAGGGAAGCCTGCCGGCCCGG
GAGGTACAGAGTAGGAGAAGCCAGATCCCAGGGCGGACAACGAGAAGTCGTACAGGCTAAGAAATGCGCATTTCAAA
AGGCAGTGAAAGGGACGATTCTTGTGGAGGAGGTGCTCTTGCAACTGTTTTAGGACTTTCTCAGTTTGCTCATT
ACAGAAGGAAACAAATGAACCTGGCCTATGTTAAAGCAGCAGACTGCATTTAGAACCAGTTAACAGGGAGCCTC
CTTCCAGAGAAGCTCAGCTACTGACTTTGCAAAACACATCTGAATTTGATATCCTTGTATTGGAGGAGGAGCAA
CAGGAAGTGGCTGTGCGCTAGATGCTGTACCCAGAGGACTAAAAACAGCCCTTGTAGAAAGAGATGATTTCTCAT
CAGGGACCAGCAGCAGAAGCACTAAATTGATCCATGGTGGTGTGAGATATCTGCAGAAGGCCATCATGAAGTTGG
ATATTGAGCAGTATAGGATGGTAAAAGAAGCCCTTCATGAGCGTGCCAACTGCTAGAAATTGCTCCCCATTTAT
CAGCTCCATTGCCTATAATGCTTCCAGTTTACAAGTGGTGGCAGTTACCTTACTACTGGGTAGGAATCAAGCTGT
ATGATTTGGTTGCAGGAAGCAATTGCCTAAAAAGCAGTTATGTCTCAGCAAATCAAGAGCCCTTGAACATTTCC
CAATGCTCCAGAAGGACAACTGGTAGGAGCAATTGTCTACTATGACGGACAACATAACGATGCACGGATGAACC
TTGCCATTGCTCTGACTGCTGCCAGGTATGGGGCTGCCACAGCCAATTACATGGAGGTAGTGAGCTTGCTCAAGA
AGACAGACCCCCAGACAGGGAAAGTGCATGTGAGCGGCGCACGGTGAAGGATGTCCTCACAGGGCAGGAATTTG
ACGTGAGAGCCAAATGTGTTATCAATGCCACGGGACCTTTCACGGACTCTGTGCGCAAAATGGATGATAAAGACG
CAGCAGCTATCTGCCAGCCAAGTGTGTTGTCATATTGTGATGCCTGGTTATTACAGCCAGAGAGCATGGGAC
TTCTTGACCCAGCGACCAGTGATGGGCGAGTTATTTTCTTCTTACCCTGGCAAAAGATGACGATCGCTGGCACTA
CTGATACTCCAATGATGTTACACACCATCCAATTCCTTCAGAAGAAGATATCAACTTCATTTTGAATGAAGTGC
GTAATTACCTGAGTTGTGATGTTGAAGTGAGAAGAGGGGATGTCCTGGCAGCATGGAGTGAATCCGTCCTCTTG
TTACAGACCCCAATCTGCAGATACTCAGTCTATCTCCCGAAATCATGTTGTTGATATCAGTGAGAGTGGCCTTA
TTACTATAGCAGGTGGAAAGTGGACAACCTTATCGGTCTATGGCAGAAGATACCATAAATGCTGCTGTCAAACTC
ATAATTTAAAAAGCAGGACCAAGTAGAACAGTTGGGCTTTTCTTCAAGGGGGTAAAGATTGGAGCCCCACACTCT
ACATTAGGCTTGTGCAGGATTATGGAAGCGAGGTGGCACAGCATCTTGCCGCCACCTATGGTGATAAGG
CCTTTGAGGTGGCCAAAATGGCAAGTGTGACTGGCAAAAGGTGGCCTATTGTTGGAGTACGTCTTGTGTCAGAA
TTCCATATATTGAAGCAGAGGTGAAATATGGGATTAAGGAGTATGCCTGCACTGCTGTGGATATGATTTACGTC
GTACTCGCCTGGCCTTTCTAAATGTCCAGGCAGCAGAGGAAGCCCTACCCAGGATTGTTGAACTGATGGGCAGGG
AACTGAATTGGGATGATTATAAGAAGCAGGAACAACCTTGAAACAGCCAGGAAGTTTCTATATTATGAAATGGGCT
ATAAATCTCGATCAGAACAGTTAACAGATCGCTCTGAAATTAGCCTACTGCCTTCAGACATTGACAGGTATAAGA
AGAGATTTCAATAAGTTTGATGCAGACCAGAAAGGCTTTATTACCATTGTTGATGTTACAGCGTGATTAGAGAGTA
TCAATGTCCAAATGGATGAAAATACACTCCATGAAATTCTAAATGAAGTTGATTTGAATAAAAAATGGACAGGTTG
AACTCAATGAATTTTTGCAGCTGATGAGTGCTATTCAAAAAGGAAGGTATCTGGAAGCCGGCTTGCTATACTAA
TGAAAATGCAGAAGAGAACCTCGACAGAAGAGTTCCAATTCCAGTGGACCGTAGTTGTGGAGGATTGTCAGTCT
GGGCAGTAAATCCACAGCCAACAACATAGAAACGACAAATCACCATGTAACAACCAGAGATGACTGAAACCACT
CTGAAATAATGAATGTGGATAGCTGCCTTTTTTAACACTAGAAAACATTCCAAAACTTTAAAGGTGTTGGTGATT
TGCCAGCTTTATTTGCTGTACTTTATTTGTATTTGCCATTGCTCTAGCTTTTAAAGTATATTTTTTCTTTTTCT
CATTTTCAATGCACATTAGTTTGTGATCTGTTTTGTGACCTGTTAGATGTGACACATTCTTTTTTGTATTATCC
CTTATTCTAAATGAGTTCTAAAAACATAATATTTTGGCAAAAATTGAAAAAGCTGGAGACATTTTGTGACATGC
ATACAGATAGCATGTGTTATTAATAAAGAGTTGCCTATTGAAATGATCGTGTCTTGGAGAAATTAAGCTTATAGA
CAGCATGTGTTATTAATAAAGAGTTACCTATTGAAATGATAGTGTCTGGAGATTTCTCAGCCCCATCTTCTCC
AGCTTGCTACCTTCCTCATGCAACAATATTCCACATTTTTATATCTAGAGCATGACTGGCTAACTGGAGAGGG
AAGGAAAAGTTTAGATCTGGTTACTGGAGCAAGTCTCAAAGAGAACTCTGAAAGCTTCCAGAATCACAGGTATA
AGATAAGGATAGCATTGACATTTGCTGGGAGTTACAGTGATAGTTTCATCTCAGCAGTTCATTTTTTCTTCAGT
CACTGCTGGTTTTCTTTGACTATTATAGTTGCCAGGAAGATCCTTGCTCTTCTTACTTTTAAACCAGCATTTAAG
TGGCAATTTGGATGTAATAGGATGAGACCAAATTTATCTAATTATTACAGTAGTAATACATTTAAGAGTTAAAA
TGTGTTTTTATATATCCACATATGATAACAAAAGATTCAATTCCTAAGCCTAAATTTTGAAGCATGTGGTATTGT
CAATCTAGCTTACCATCTTTTTTGGGGGTACTTGCAACCATAGTAAAGGAAGATGGAATAGACTTTAGTTAACT

FIGURE 1272B

TTAATTATAATTATATGTTAAATAAGGCACATAACCAGTTTCCAAGGTCATCATGGTTGCTTAAAGTCTTTCCCC
TTCTGTACTCCATGGAAATATTCTCAGTAAACCAAAAACAAAATGGAAAAATAATCACCAACCCCCATCCCGAC
ACACACACACAGTCCAAAGCAAAAGTCAGTGTGATTGAATTTAACAAGTAATGCAGTTTGGGATGCTTTTGCTA
CATTTTGGTGGCATTTTAACTAGTTATCTGAATATTTATTAATCGTACTTCCTCTTGTAAGTTAACTACTTACT
TTTTTGTGTGTGTGTGTTTTAAACATCAGGTTCTGTATCTAATAGGAGATGTAACACTTTATTTCAITGGCAGGTTTT
TATTGCAGAGACTTGAAGTCTTAGTTTTTAACTGGCACATAAAACACTTTTTGCTGTTATTTTTATTTATGTC
AATACTGCAGAGTATCTTTATGCCTTATTCAAGTGGATTCTGAGCCTGTATGTCACAATGTAAACACTGGAGGTT
CACTCACCTACGCACTCACCCACCACCTCTGAAAGAAACAGAACTGCAGAGAAAGACAGCATCTTAGCTCATTT
TGTTTTTAAATGAGGTTTTAGACGCTTGCCACTTCCTAAGGGAAATCCTAAACAGAGCAAGTGATGCTCCCAGG
TATCACTGTGAACTTTTTCTTTCAAAGTGTGAATTTTTACACTGGCTTTTTCATTTTTTTAAAGTAATTGAAGC
TTGTGGCTTTACAACCTTAGTGTTTTTGTCTATCCAGATAACAAGTTTCATTGTTTAGAACCCAGTGACACTTAAT
AGGTAGATAAATTGTCCTTTAAAATATCCAGATGATATACACAATATGGTACATTTGTGCTCTCTCTCTCTGTT
TTTCTCTCTTTCTCTTTCTAGTTAGATCAAGATAACGATGACTTGTACCCTCCCTGATTCTGTTACAGTAGGGCC
CGGGCAGATCTGTGTTTGTAAACAGGCCTTGTTTTGTGTCATGCTTTGCTATGAATGAAGTTCCTTTAAGGACAAA
GAAAAGCACACTTTTCTTCTTTTGAGCATATCTGCTTTTACTTTAAATCTGCTAATTTCTAAAATGTAGAGTCTT
TCACCAATCCCAGAGACTCAATTTGGAAATGAAGTGAATTTCAAGCCGTTACTGTCAATAAAGCACCCCCAGCATTT
TGTATAAGCTCTTAATTAACCTGTACAGCTTCTTTACCTGATTTAAGAAAGGGAGACAAGCAATAGGGGGGAAT
AAGCTTCTTCAAAATTCATTCCAAGCACAAAAGAAATTTTTCCCTTTGCATATAAACTTGACATCAGTTGATTC
TGTTGGGGTCGGGTGGGTATGCAGGGATTGCCTTTTATTATCAAGTGAATTTATTTCAAGAGCCTTTGAGGGGAT
TCAGGTGAAGGAACCCCCATCTGTGCTGGAGAGTTGGATACTCCTTTAAATAGCCCCCACCACAGTCATAACAAT
AATGATAATGCTGGATTATTTGTTAAGCCAAGGTTGTCTGCCTCATATCCATCATGCTGTTTGCAATATTCTTGC
TTTCAATCAATTTATACTGAGTGTAACTTTAGGATTTCTGCTATTAAATGCATGCTCTCTATCCTGCTTCAGTTT
CTGGCTTTGCTTTGTCTGTTTCAAATATGTAGCTTCCTCTTTTGTACAACAAAAAACTCATTCTCACTTTTACT
AAATATACTGTAGGAGTCATCATTGATGTTATTTTTCTCTTATGTATCTGTAAAGATTTTTGGCATATGAATGTA
ATATTAAAGTCAATGATGCTATAAAGTTCAGTGTGCTAGAGTGGATATACACACCGCATGTTTTCATATGTGGCACT
CTATGTTTTTAAATAGCAAGTGTAAAGCTCAGTGTAGAGTGGATATACACACCGCATGTTTTCATATGTGGCACT
TTTATGTATCATGTTGGGTTATTGTTCTAGACTGGACTGTTAAATACTATGTTTGAGGCTGGGTTGTCAATTTTTA
TAACTGTCTTGGTGTTTTATGGCCATTATTTATTACTTTTGATACACAGAATGAGCTGCATGCAATTTATAGAGCA
ATAAGAGGATGTATTTAATGTGCCTTGTTTTTAACTGAATAAGAACTGGAAGCATGAATCAATAAACTGATTAA
AATGGTCTATTTGCTAGCATTTTGATGTTACTTGCAGTCAGATAACTTTGATTACTGTTGAAGTTTAAAAAAGT
TTGAAAATATTTTACAACTGTGTTTTTGATGACACAAAAGTGAATATCTACAGAGATAGATGTAATTTTATA
AGACTGCCAGAATTATTTGTATTAATTTGTTGCTGTAGCCTTTAGGGCATGACTTCTGTATTTGTGCAATCCTAT
TCTACAATTACATTCATCCTATTACAACCTCAAAGAAAAACAAAAGTCGACGCGG

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FIGURE 1273

MAFQKAVKGTILVGGGALATVLGLSQFAHYRRKQMNLAYVKAADCISEPVNREPPSREAQLLTLQNTSEFDILVI
GGGATGSGCALDAVTRGLKTALVERDDFSSGTSSRSTKLIHGGVRYLQKAIMKLDIEQYRMVKEALHERANLLEI
APHL SAPLPIMLPVYKWWQLPYYWVGKLYDLVAGSNCLKSSYVLSKSRALHFPMQLQDKLVGAIVYYDQGHND
ARMNLAI ALTAARYGAATANYMEVVSLLKKTDPQTGKVHVSGARCKDVL TGQEF DVRAKCVINATGPFTDSVRKM
DDKDAAAICQPSAGVHIVMPGYYSPEMGLLDPATSDGRVIFFLPWQMTIAGTTDPTDVTTHPIPSEEDINFI
LNEVRNYLSCDVEVRRGDVLAWSGIRPLVTDPKSADTQSI SRNHVVDISESGLITIAGGKWTTYRSM AEDTINA
AVKTHNLKAGPSRTVGLFLQGGKDWSP TLYIRLVQDYGLESEVAQH LAATYGDKA FEVAKMASVTGKRWP IVGVR
LVSEFPYIEAEVKYGIKEYACTAVDMISRRLAFLNVQAAEEALPRIVELMGRELNWDDYKKQE QLETARKFLY
YEMGYKSRSEQLTDRSEISLLPSDIDRYKKRFHKFDADQKGFITIVDVQRVLESINVQMDENTLHEILNEVDLNK
NGQVELNEFLQLMSAIQKGRVSGSRLAILMKTAENLDRRVP IPVDRSCGGL

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FIGURE 1274

TTTTTTTTATCATTGACAAIGTTTATTATCAAGAACTTTAGGTTTTTTAAAAGAATGCTCGTTTTAGAAATACAC
CAAGAGGACACTCTGTGACAGGACATATACAAACAAGGATAATTTAAATATTAAATACTATCTAAATTTAAAAGAC
CATAATTCAAATTGCTAATTATAATATTTGTGTCGGTAGAAATAACTATAGTTCCCCTTCATGAAATTCACCCCC
ACGTTCTCATGAAGACTATGACGTCTCACCACAATTTTCAGTTATTTAATTTACAATAATCAATGCTGAGTTTTCT
GTGCTGAAGCATGCACTGTTACAGAAAGCACAAAATCCTATTTACAGGGATTTTTAGTTTTCTTTAAAATGTATC
TCAAGCATCTTTTAAAGTGCAGCTACAAATAGGTTGTATCCTTAATGAAAAAGGCTTCTTTCTAAAAGAAGTAT
GAGATAGCTATCCAATACTGCAGGAACAGTTATATAACTAACCGAAGGAACCAGCAGCACTCTGCTAACTCTGTT
TTAGTGTAGCAACCTCCTTCTTGGTGTTCTACTACCAGCCAXACATGTACTCCATTGCTTTGGATACCAGACTTT
CATCTTTTTTTGGCGTTTGTCTGTCAGAAATACCCTGATAATCACTAGTAGAGGC

FIGURE 1275B

CACATATAAGCCATAGTTACAGTACAGGTGGCAGTATTTAGAGCACTCAGATTTTCAGTTCTGTTAAATGTGAAAG
AGGGATCGACTGACGTTTCATTGCTGTTCCATAACTAGTGTAATAATGTATATGTTTATCTTTATTTTATAATA
TGCAAATACATTTAAATTTATACAGTTTGAAGCTTCTAGCGTTAGTTCACACTGGGTGCAATATTCTGCATGAGA
ACTGTGCCAAGATGGGGCTGATTTCTTATTTTAGTATAAGACTTTTTTGTTTTTCTTTATTCTTTAATCCTCTT
CACATTAATAAAAAAAAAATCTCTCTGTTAGCCCATGGATTAAGTGTGTTTCATAGAGATTGCCAATAATCAGAA
AGAACCTTAAATGTGCATTTAAGACAGTGTCCCTTCCCTTCTTTTCAATGAAGGTCCCTGCCTATATAAATCATC
TGGCAGCTGGTGGGAAATCCTTTGCTCTTCCAACGTGTTATTAGTGCTGGGCAGAGATGGGGCACACTCAGGGG
CCAAAGAGGACAAAAAGTCCATGCAAACTTGAGTCTTTAATGGCTTAAGATAATCAGGAGTCAGTTCTGAATC
TTACAAAGTGCTCTGCTTAATAAGTACCTTACTTAGCAGAGCACTTTGCAAACATATTACTTATTAGCAGAGCTC
TTTGTAGACCTTCCACATCTGGCTGTCAGATCTTAAGGTGTGAATTTAGGCTCCAGTTACATTCAGTGGAGAGC
ATAATCCACACCGGTTATTTATAAATACAGAGCCTCTGATTGGACGGTCTCCTGCCAAGAACTAGTAATACCTT
TGTTTTTAAATCTTCACAAGGTAAACTTTAAAAAGCCAAACAAATGCTCTCCATTCTACTTTTAATTGGG
CCAAACAGCATATGCTACAGTAGTAACATGTTTTTCGGAGAGTGTAATAAACTCTGTTTACATTTGCCTCCTCCG
TGGGTTGATCGAAAATGTATAAACTGACTGCTTCTCGCCAGCCTCAGACAAGAAGAGTGAGTTGCTGGTACTCG
CTACTCTTTTACTTCTTTTGTAAGTATTGACTCTTGGAAGGCTACAGTATACAAAGTCTCAACATGTTTTTTAA
AAGAAATAAGGAGCAAGCGACTGCCCTGCTAGAAATCACAAACCGATTTTTGTAGAATATTTTGTGCCCCAGGCA
TTAATTTCACTGACTCCAGAACCTGCAGTTCAGAGAATGATTTCTTATGATGATAAAAATCGAATGGGATCAGAC
GATGTTTGCATTTTTTTAATACTTGAATAGGACACCTCAAGTTTGAGATTTTCATTTTCTTTTAGAACACAGTCAC
AAGATTAATCTGGTGAATCCTTTTGTACAGTTCCTGTGTGTGTGTGCGCTCTCCNNNNNNNNNNNNNNNNNN
NNNNNAAACTGAATGGTCACATTTAATTGCTTTTTGGACCATTGAATAGTTGGGAAGTAAGAATTTTTTAATTG
GCATGAGACGGTTCCTCAACTGTTAAATTAACCAACTTTGACCTGTCTTTAGAAAAAGGCTTATTTGTATGATTT
TGGGCTAACTCCCCGGGGACCATATTAAATGACAAAAATGCTCCTTTGGGTGACACACCCTACAAAGTATTTGCT
GTTACGAACATAAACGCCACATTCTTAATATCTAATATTTTTGACCAGTGATGTTTTATGCTGTCATCTGAACC
CTAGAGAAGCAGTGTGAGAGGAAACCTTGGTGTACATGTGTCTTAGCAAAAGGGTTACCATGATCGAGGGTCAT
GTGACCAAAAGATGCTCCAGAGAAGCTTGAGAATTTGTTTCAAGTTGGGAGGAGGGTTGGAGATACAAAAATCAC
TCTGCTCTACAGGACTCTTCAGCTGTCTATGCAAGAAATTCGTTTTCTCTTTTACGACCTGGAAAGACACAGCA
GCCCACCGAGGCGATAGGTGATTCATAAGCACAAAGAGGAATGTTTTCTAAGCAAGGCGTCCCTTGCTCTCAAA
CAAATGCCCTCCAAGTTTGTTAGGGTTTCTATTCTGCAACTTGTAGTATCAAACCCTTCTGGAATTGTCAA
AGCACTGCCAAAATAAATGTTTTTCCCCCTTCTAAGAAAAAATGACAGTGCTCATATTTGACACTTGTGTA
TTGGACTCTCTTTGAATGAATAAAAGGAAAAGGGGTTTGGTGTAAATTCCTGATGGGGTGCGTGTGTTTTCA
TGCCATGGTTTGTGAATTTTAATTGTGGTTTCCCATTTTCGTTGTTGTAAGTGGGCAGAAATTAATAAAGAAAAAT
CAATAAAAAATACAAAGAAATGGTTAAAAA

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FIGURE 1276

AAGRRAREGRQGQEPEGPGRGAACSCGLPRRVRLSARGPAMAGMDSGNLKTARLWRDAALRARKLRSNLRQLTLT
AAGACPGAGADALESPASPQLVLPANLGDIEALNLGNNGLEEVPEGLGSALGSLRVLVLRRNRFARLPPAVAELG
HHLTELDVSHNRLTALGAEVVSALRELRLNLNLSHNQLPALPAQLGALAHLEELDVSFNRLAHLPDLSLSLSRLRT
LDVDHNQLTAFPRQLQLVALEELDSSNRLRGLPEDISALRALKILWLSGAELGTLPAAGFCELASLESMLDNN
GLQALPAQFSCQLRLKMLNLSSNLFEEFPAALLPLAGLEELYLSSQPAHLGAIRLSRAWAGFLTTLWLDNNRIRYL
PDSIVELTGLEELVLQGNQIAVLDPDHFGQLSRVGLWKIKDNPLIQPPYEVCMKGIPYIAAYQKELAHSQPAVQPR
LKLLLMGHKAAGKTLLRHCLTEERVEGCPGGGDKEKCYPPSPPPVSKGIEVTSWTADASRGLRFIVYDLAGDESY
EVIQPFFLSPGALYVLVNLATYEPHFPTTVGSFLHRVGARVPHAVVCIVGTHADLCGERELEEKCLDIHRQIA
LQEKHDAEGLSRLAKVVDEALARDFELRSASPHAAYYGVSDKNLRRRKAHFQYLLNHLRLQILSPVLPVSCRDPH
LRRLRDKLLSVAEHREIFPNLHRVLPERSQVLEELHFQPPQAQRLWLSWWD SARLGLQAGLTEDRLQSALSYLHE
SGKLLYFEDSPALKEHVFNHLTRLIDILNVFFQRDPSLLLHKLLLTSGEGKAEGESSPPMARSTPSQELLRATQ
LHQYVEGFLLHGLLPAHVIRLLLKPHVQAQODLQLLLELLEKMGLCYCLNKPKGKPLNGSTAWYKFPCYVQNEVP
HAEAWINGTNLAGQSFVAEQLQIEYSFPFTFPPGLFARYSVQINSHVVHRSDGKFQIFAYRGKVPVVVSYPARG
VLQPDTLISIASHASLPNIWTAWQAITPLVEELNVLLQEWPLHYTVHILCSKCLKRGSPPNPHAFPGELLSQPRPE
GVAEIIICPKNGSERVNVALVYPPTPTVISPCSKKNVGEKHRNQ

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FIGURE 1277

GCAGCCCCGGCGGCCGAACGCCCGCGGGCGGGACTCCATCGTCAGAGAAGTCATTTCAGAATTCAAAAGAAGTTC
TAAGTTTATTGCAAGAAAAAACCTGCCTTCAAGCCGGTTCTTGCAATTATCCAGGCAGGTGACGACAACTTGA
TGCAGGAAATCAACCAGAATTTGGCTGAGGAGGCTGGTCTGAACATCACTCACATTTGCCTCCCTCCAGATAGCA
GTGAAGCCGAGATTATAGATGAAATCTTAAAGATCAATGAAGATACCAGAGTACATGGCCTTGCCCTTCAGATCT
CTGAGAACTTGTTTAGCAACAAAGTCCTCAATGCCTTGAAACCAGAAAAAGATGTGGATGGAGTAACAGACATAA
ACCTGGGGAAGCTGGTGCAGGGGATGCCCATGAATGTTTTGTTTACCTGTTGCCAAAGCTGTAATTGAACTTC
TTGAAAAATCAGGTGTCAACCTAGATGGAAAGAAGATTTTGGTAGTGGGGGCCATGGGTCTTTGGAAGCTGCTC
TACAATGCCTGTTCCAGAGAAAAGGGTCCATGACAATGAGCATCCAGTGGAAAACACGCCAGCTTCAAAGCAAGC
TTCACGAGGCTGACATTGTGGTCCTAGGCTCACCTAAGCCAGAAGAGATTCCCCTTACTTGGATACAACCAGGAA
CTACTGTTCTCAACTGCTCCCATGACTTCCTGTGAGGGAAGGTTGGGTGTGGCTCTCCAAGAATACATTTTGGTG
GACTCATTGAGGAAGATGATGTGATTCTCCTTGCTGCAGCTCTGCGAATTTCAGAACATGGTCAGTAGTGGAAGGA
GATGGCTTCGTGAACAGCAGCACAGGCGGTGGAGACTTCACTGCTTGAAACTTCAGCCTCTCTCCCCTGTGCCAA
GTGACATTGAGATTTCAAGAGGACAAACTCCAAAAGCTGTGGATGTCCTTGCCAAGGAGATTGGATTGCTTGCA
ATGAAATTGAAATCTATGGCAAAGCAAAGCCAAAAGTACGTTTGTCCGTGCTAGAAAAGGTTAAAGGATCAAGCAG
ATGGAAAATACGTCTTAGTTGCTGGGATCACACCCACCCCTCTTGGAGAAGGGAAGAGCACAGTCACCATCGGGC
TTGTGCAGGCTCTGACCGCACACCTGAATGTCAACTCCTTTGCCTGCTTGAGGCAGCCTTCCCAAGGACCGACGT
TTGGAGTGAAAGGAGGAGCCGCGGGTGGTGGATATGCCCAGGTCATCCCATGGAGGAGTTCAACCTTCACTTGA
CTGGAGACATCCACGCCATCACCGCTGCCAATAACTTGCTGGCTGCCGCCATCGACACGAGGATTCTTCATGAAA
ACACGCAAACAGATAAGGCTCTGTATAATCGGCTGGTTCCTTTAGTGAATGGTGTGAGAGAATTTTCAGAAATTC
AGCTTGCTCGGCTAAAAAACTGGGAATAAATAAGACTGATCCGAGCACACTGACAGAAGAGGAAGTGAGTAAAT
TTGCCCCTCTCGACATCGACCCATCTACCATCACGTGGCAGAGAGTATTGGATACAAATGACCGATTCTACGAA
AAATAACCATCGGGCAGGGAACACAGAGAAGGGCCATTACCGGCAGGCGCAGTTTGACATCGCAGTGGCCAGCG
AGATCATGGCGGTGCTGGCCCTGACGGACAGCCTCGCAGACATGAAGGCACGGCTGGGAAGGATGGTGGTGGCCA
GTGACAAAAGCGGGCAGCCTGTGACAGCAGATGATTTGGGGGTGACAGGTGCTTTGACAGTTTGTAGTAAAGATG
CAATAAAACCAAACCTGATGCAAGACCCTGGAAGGGACACCTGTGTTCTGTCATGCGGGCCCTTTTGCTAACATTG
CTCACGGCAACTCTTCAGTGTTGGCTGATAAAATTGCCCTGAAACTGGTTGGTGAAGAAGGATTTGTAGTGACCG
AAGCTGGCTTTGGTGCTGACATCGGAATGGAGAAAATCTTCAACATCAAGTGCCGAGCTTCCGGCTTGGTGCCCA
ACGTGGTTGTGTTAGTGGCAACGGTGCGAGCTCTGAAGATGCATGGAGGCGGGCCAAGTGTAACGGCTGGTGTTT
CTCTTAAGAAAGAATATACAGAGGAGAATCCAGCTGGTGGCAGACGGCTGCTGTAACCTCCAGAAGCAAATTC
AGATCACTCAGCTCTTTGGGGTTCCCGTTGTGGTGGCTCTGAATGTCTTCAAGACCGACACCCGCGCTGAGATTG
ACTTGGTGTGTGAGCTTGCAAAGCGGGCTGGTGCCTTTGATGCAGTCCCCTGCTATCACTGGTCCGTTGGTGGAA
AAGGATCGGTGGACTTGGCTCGGGCTGTGAGAGAGGCTGCGAGTAAAAGAAGCCGATTCCAGTTCCTGTATGATG
TTCAGGTTCCAATTGTGGACAAGATAAGGACCATTGCTCAGGCTGTCTATGGAGCCAAAGATATTGAACTCTCTC
CTGAGGCACAAGCCAAAATAGATCGTTACACTCAACAGGGTTTTGGAAATTTGCCCATCTGCATGGCAAAGACCC
ACCTTTCTCTATCTCACCAACCTGACAAAAAAGGTGTGCCAAGGGACTTCATCTTACCTATCAGTGACGTCCGGG
CCAGCATAGGCGCTGGGTTCAATTTACCTTTGGTCGGAACGATGAGCACCATGCCAGGACTGCCACCCGCCCCCT
GCTTTTATGACATAGATCTTGATACCGAAACAGAAACAAGTTAAAGGCTTGTCTAAGTGGACAAGGCTCTCACAG
GACCCGATGCAGACTCCTGAAACAGACTACTCTTTGCCTTTTTGCTGCAGTTGGAGAAGAACTGAATTTGAAAA
ATGTCTGTTATGCAATGCTGGAGACGTGGTGAATAGGCCAAAGATTTCTTCTCGTTCAAGATGAATTTCTGTTC
ACAGTGGAGTATGGTGTTCGGCAAAGGACCTCCACCAAGACTGAAAGAACTAATTTATTTCTGTTTCTGTGGA
GTTTCCATTATTTCTACTGCTTACACTTTAGAATGTTTATTTTATGGGGACTAAGGGATTAGGAGTGTGAACTAA
AAGGTAACATTTTCCACTCTCAAGTTTTCTACTTTGTCTTTGAACTGAAAATAAACATGGATCTAGAAAACCAA
AAAAAAAAAAAAAA

FIGURE 1278A

CGGGGCCGCTGAATGAGATCCTCATCTGCGGGAAGTGTGGCCTGGGTTACCACCAGCAGTGCCACATCCCCATAG
CGGGCAGTGCTGACCAGCCCCTGCTCACACCTTGTTCTGCCGACGCTGCATCTTCGCACTGGCTGTGCGGAAAG
GCGGCGCGCTGAAGAAGGGCGCCATCGCCAGGACGCTGCAGGCCGTGAAGATGGTGCTGTCTACCAGCCCGAGG
AGCTCGAGTGGGACTCGCCCCATCGCACCAACCAGCAGCAATGCTACTGCTACTGCGGCGGGCCCGGAGAATGGT
ACCTGCGGATGCTGCAATGTTACCGGTGCAGGCAGTGGTTCCACGAGGCCTGCACCCAGTGCCTCAATGAGCCCA
TGATGTTTGGAGACCGGTTTTACCTGTTCTTCTGCTCCGTGTGTAACCAGGGCCAGAGTACATCGAGAGGCTGC
CCCTGCGATGGGTGGATGTGGTTCACCTGGCCCTCTATAATCTGGGGGTACAGAGCAAGAAGAAGTACTTTGACT
TTGAGGAGATTCTGGCCTTTGTCAACCACCACTGGGAGCTCCTGCAGCTTGGCAAGCTCACCAGCACCCCACTGA
CAGATCGAGGACCACATCTCCTCAACGCTCTGAACAGTTATAAAAGCCGGTTCCTCTGCGGCAAGGAGATCAAGA
AGAAGAAGTGCACTTTCGCGCTGCGCATCCGCGTCCCACCCAAACCGCCAGGGAAGCTGCTGCCTGACAAAGGAC
TGCTGCCAAATGAGAACAGCGCCTCCTCTGAGCTGCGTAAGAGAGGAAAGAGCAAGCCTGGTTTTGTTGCCTCACG
AATTCCAGCAGCAGAAAAGGCGAGTTTTATAGAAGAAAAAGATCAAAGTTTTTGCTGGAAGATGCTATTCCAGTA
GTGACTTCACCTCAGCCTGGAGCACCAACCACCACTGGCTAGCATATTTGACTTCACGCTGGATGAAATTCAAA
GTTTAAAAAGTGCCAGCTCAGGCCAGACCTTCTTCTCAGATGTGACTCCACCGACGCTGCCAGCACCTCTGGCT
CTGCCTCCACCAGCCTCTCCTATGACTCCAGATGGACAGTGGGCAGCCGAAAGAGGAAGCTGGCAGCCAAGGCAT
ACATGCCCCCTGCGGGCAAAGCGGTGGGCAGCTGAGCTGGATGGACGCTGCCCCCTCGGACAGCAGTGCAGAGGGGG
CTTCAGTCCCCGAGCGGCCAGACGAAGGCATTGACAGCCACACATTTGAGAGCATCAGTGAAGATGACTCATCCC
TGTCCACCTCAAGTCATCTATACCAACTACTTTGGTGCAGCTGGGCGGTTGGCCTGTGGGGAGAAGTACCAGG
TGTTGGCTCGGAGGGTACACCTGAGGGCAAGGTTAGTACCTGGTGGAGTGGGAAGGGACCACCCCTTACTGAC
TAGCCCCCGGGGTGCCAGGGTCTGAAAACCAAAGGAGGAGCAGCAGAAGCCATAGGCTCCCCAGCTTTCTCC
AGGCTGGGGTGGGAGAAGGAAGCAGGACAGAGCTGCAAGTGCTGGCAGAATGCCCTGCCTGCCTGCCTGCCTGC
CAGGCCAAGGCCCTGCGTCTCTCTGCTGTACCAGCTCTGTTCCAGGGCCTCCTCAGGCTCGTTACCCCTGTGCCTG
TGTCTCTACACACTCCACACCCCCCTCAAACCTCTGTTTATCTGTTCTCTGACCTTGTGTCCCTGCGCTGGGACCC
TTCTCCTGAGGCCCAGGTCCTTTGTCCCCAGTTGTGTGCCTTGACCTCTCTCGCCCCCTTTCTGGGTGTGTTTCGA
CATCCTGTGTGTGCACAGCTGTCCCTCCACTGGATCCCCCTCACACGTGACCCGTGGGGCAGCCAGTCCCTCCAG
GGACTACATAACAGGCACCTTTGAGAGAGCATGGGAGAAGGTGGATAAGAGGATGCTGCTCAGTGCTTTTCTCTT
CCACTTTCCTGCCACTCCCCACTACCCTCGGAGAGAGGTGGTGGGATGGGAGAGAGCCCTGTGAAAGCCTGTGA
GGATCTGAAGAGTAAAGGGCTGGGTCTGCCTCAGAAGGCACCAGCACCAGGGCCAGGTATTAAGGCTGAGAGTG
AAGGCTGCCAATGTGAGCTTTGGAGGTCCAGAAGTCTTCTGTTCTCTGGCCTCACCCCTCAGTCGCCATAGAG
CTGGGCCTGGCCTTGCTGGAATGGAGGCATCCTTCAAACCTGGGGGACGGGGGTGGGGGTGGTAGTGGTGGGA
GGGAAACCATGTCTTGCTAAACCTGTTTCTGGTGCCTCCCATCCCCAGACCCACCAGACACCACACAGCAGACAA
TACACACCACTCGCACAAAGCTTCCATCCACATGTGTTGTACTTTCAGCTCTAGGCATGCAGACAACCCACACG
GCCACACCACCATGCCCCAAGTGTACACACACAGAGCCACACCGTCCCTCTGGGCCTGCTGGCTCCTCCCTTGG
CTTTCCCTTGGCCCACTTCCAGGGCCCAGGTGCTGCAACTAAATGTGAAAGCTCAGTGGCCGCTCCTTCTTTCAG
CCCATCAACCAGCATTGGTCCCATAGGGAAGCACAGGGGACTCACCCCTTTTCATATCCCTTGCCCTGCCCTGAA
ATGGACAATCACTTTTTTGGGATAGGTTGAAATTTTTTAAAGAGCCTGCATCATTGCGTTCCCTCAAAGGGAAGCCC
TTGCTAGTGGGGGTTTGAAGAGAATTTTTTGAACCAACATTCAAATTCGCTCATCTGGAGGGAAACCAAAAT
TGGGAGGGGGAAGAGGACCCCTGATGTTTTGCTGCTTCCAGAGATATTAGAACTGACTCACTTGATTGGAAAAT
GGACAAAAGTGCCCTTGACGTGGAGGGTGGGCACCAGATGGGGACCAGCCTTGCCAACTGCTGCTGTGGCCTCCAG
CTTGGCTGGTTTTTGACAGGCCGCCAGCAGGAAGGCGAAGGTGGTAGTACAGCAAGAGGCACTGGCGGGGCAGCAGG
CCTGCAGGAGCTGTTTTTCCATTGCTAGGCCTGACCCCTCTCTACCTGTGAGCGTTTCAGGGGGTCCCTGAGATAG
TTTAGATGCCCCCCCCATCTTAGACCTCAGCTCCCACAGTGCCTTTTTAAGGGGGACCTCACCTCCTGTGCACAGC
CCACCCACTTTCCTCTGCTTCCCTGGCACAGCCAGGCATAGACGAGCTGGCGTTGGACCCAGTTCTTCCCCCTT
TTCAGCCCCACAGCTGCTGCCACAGGGGCCAACTAGGGCCAGGTGGAAGGGGAGCTGAGAAGCCAACCCCTAGCC
CAGGGGTGCTGTGGGAACTGGGATCCAATTTGTAGCTTCCGCGCTGGCTTCAGAGAGCCAGCAACCTTCTAGGC
CTGCTTTCAGACTTCTGAGATAGCCTGGGATGAGCAATCCTGTTACAGTACATCTGGACCTTCCCTACCTGGGC
TCTGGGGAGGCTGTGGGCCTGGAGAGGGAAAAGGAGGGAGGGGGTGTCTGCACCACCTGGGAAGATAGCACAAAG
CCTAATGAGGTCACCCTGACTCCCCACCCAGCATTTCATTCATACCAGATAATAGCTGCATTACTGCCAACTGA

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FIGURE 1278B

CCTTATAACCCCTCTGCACCTTCAAAAAGATTCATGGTTTTTAATTGCTGCTTTTAATAACATTTGTAAAGTTAAA
AAAAAAA

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FIGURE 1279

GPLNEILICGKCGLYHQCHPIAGSADQPLLTPWFCRRCIFALAVRKGGALKKGAIARTLQAVKMLSYQPEE
LEWDSPHRTNQQCICYCGGPGEWYLRMLQCYRCRQWFHEACTQCLNEPMMFGDRFYLFCSVCNQGPYIERLP
LRWVDVVHLALYNLGVQSKKKYFDFEILAFVNHHWELLQLGKLTSTPVTDRGPHLLNALNSYKSRFLCGKEIKK
KKCIFRLRIRVPPNPPGKLLPDKGLLPNENSASSELRKRGKSKPGLLPHEFQQQKRRVYRRKRSKFLEDAIPSS
DFTSAWSTNHHLASIFDFTLDEIQSLKSASSGQTFSDVDSTDAASTSGSASTLSYDSRWTVGSRKRKLAAKAY
MPLRAKRWAAELDGRCPSDSSAEGASVPERPDEGIDSHTFESISEDDSSLHLKSSITNYFGAAGRLACGEKYQV
LARRVTPEGKVQYLVWEGETTPY

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FIGURE 1280

CTGTTTATAGATAATGTCTGCAGTTTCTGTTTGAGAGAGATAATTATGACACTTAGCATTGGAAAATAAGAAGA
ACGTAAGCAGGTCAGCTATCAGAAGTCTTCAGACTGGAGAGATTCTTGAGGGGGAGTGGCCCTTTAATCCATCA
GCTGAAGCCATCTGGTAGGACGCTCGTTGCAGAAATGGTTAGTTCTGAAATGTTGTAGCTCAGCAACATCACTGA
ATGTCACAGAATTGACAGGCACGGAGCTAAAAGGGCCTCTAGCCACCCCACAACCTCCGCTCTACCTCTGTCTCC
CTAACACATGACTTGGAAACAAATACACTCTAGGTACAAAGATGGCTACCTGAAGTTTATGATCCCTACTCATGGA
GCTGCTTGAGGACTTCACATTTTTTAAAAAGCTGCTTTGGGCACCCCATTCCTGAGGAGTTTGTAGCTTGGTT
TCTCTTTGCCACATTACGTTTGTAAAGCTAACATTTTATAACCATAAGCAGTTAGGCCTTTTTATTTTGAGAAAT
TTATCTGTAGCTTCCTTTTTATTTTACACTTGGGGACTATTTTAAAGTAACCGATTGAAATATTTTTGTTTCTCCAT
TGCAAGTGAAATCCTTGTTGCTAATCTTTTGCCACATGTAAATTTGTTCACTTGTTATCAAGCAGGTAGTTCAAT
ATCTGTAATTCTTGAGTTCTTTTCAACTAGCATGATGCTAGGTGTCACTCACTGTTTTTTAATTGTGGGAGATTG
ATGCGTCAGTGCATGAAGTGGGGGGTGGTCAACAGCATCTAACTCAAAGTGTGATTATAGCTATCTTACCACATT
TTTTTTTCTTTCTCACTCTGTCAACCCAGGCTGGAGTGCAGTGGTGTAACTCTCAGCTCACTGCAGCCTCGACCTC
CTGGGCTCAAGCGATCCTCCTACCTCAGCCTCCCAAATAGCTGGGACCACAGGCGCATGCCACCCCACTAAGCTA
ATTTTTCTATTTTTTGCAGAGACAGGGTTTTGCCGTGTTGCCTAGGTTGTTCTCAAACCTCCTGAGCTCAAGCCTG
CCTCAGCCTCCCAAAGTGCTGGGATTACATGTGTGAGCCACCATGCCTGGCCGTCACCTAATCTTCAAGGTTAATA
TTTGGAGGACCCATCCAGAGTCCAAAGGTGGTCTTCGAGGGATAGCACGAGGTGGTCTGACAGGACTAACACTTA
CCAGCCTCTATGCACTATATAATAACTGGGAGCACATGAAAGGCTCCTTGCTCCAACAGTCACTCTGAAGATTTT
GCCAACTCATGAATGGAGGACACTTCAGTAGTCATCTAGATCCTTTTATAAGACAGTTTGGAGTTATTCTCTCTC
TTCTACCTACAATTAGTTTGAATAATTGGAGATTTGATTTGCTGTGATGAAATCCTGGATGGCTGACCAAGAC
TGGCACTTGTTCCAGCCATTAGTGAGTTGAAGCCAAAGCCCTTTGGTGACTCACTGAGTACCATGGTTCTGTTCT
CCTCTGGAGATCTTGACGTATCTGTTTTCTCCCCCATGAACTAGAAAACCACTTACTCCCAGAAATTCAGGTGCG
TGCTTGTTAGTACTATATACCAAGTCCATTCAATTAATGATCCAAACTGTAATGTTGCACTGTATTCCAAATA
AAGGGTAAAAACAGAACCAAGGTATAACTCCAAAAAAAAAAAAAAAAA

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FIGURE 1281

GTCCTCTCTGCTCTCGCGGCCGACTCGCAAGATGGCGCCGCAGAAAGACAGGAAGCCCAAGAGGTCAACCTGGAG
GTTTAATTTGGACCTTACTCATCCAGTAGAAGATGGAATTTTGGATTCTGGAAATTTTGAGCAATTTCTACGGGA
GAAGGTTAAAGTCAATGGCAAACTGGAAATCTCGGGAATGTTGTTTACATTGAACGCTTCAAGAATAAAATCAC
AGTTGTTTCTGAGAAACAGTTCTCTAAAAGGTATTTGAAATACCTTACCAAGAAATACCTTAAGAAGAACAATCT
TCGTGATTGGCTTCGAGTGGTTGCATCTGACAAGGAGACCTACGAACCTCGTTACTTCCAGATTAGTCAAGATGA
AGATGAATCAGAGTCGGAGGACTAGGCAAAGGCTCCCCTTACAGGGCTTTGCTTATTAATAAAATAAATGAAGTA
TACATGAGAAATACCAAGAAATTGGCTTTTAGTTTATCAGTGAATAAAAAATATTATACTCTTG

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FIGURE 1282

SSLLSRPTRKMAPQKDRKPKRSTWRFNLDLTHPVEDGIFDSGNFEQFLREKVKVNGKTGNLGNVVHIERFKNKIT
VVSEKQFSKRYLKYLTKKYLKKNLRLDWLRVVASDKETYELRYFQISQDEDESESED

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FIGURE 1283

CTAACTTTGAGTCAACGCTGACTACAGCACCAGGACTGCTCACTTCCAGCTTCTGCTGACACCTGCCCTCGTTTA
GTCTTTCTTGGTGGCTGCAGGTTGAGTAGAACTCTATGCCAGGCTTTGTCTCCGGGACATAGGAGAGTGCTGGT
GCTCAGTCATGTTTGTGAATGAGTAATAAATGGTAAAGTTGTTGCTGCCCGAGACGCTTCAAGAGGAAGCAG
CCCCCTAACCCAGCTGGGAGGAGGAGGAAGAATCCTGGGCTGGTCAGTTGGGGAAGGAGCTGAGCAGGCCGGGC
CACCTGGGCTGACACAGCACGAGCACCACGTGGATGGGATGCCTGCAGTCAGCTGCAGGAGGGCCTCGTCGGGAG
GCCACAGGGCCCCCTCTTTTGTCTTGAATGGAGACCTCCAAGGCTCCAGGACATAAAGGGCCTTGGCCAAGCTGTT
CCTGGCCACCTGGCCACATCTCCAGCTGCACCACTTCTCACCTCCATTCCCCACGGCCCCAGCTGTGAGGTTTAA
GGGTGGCAGAGAGCTCCATGCACCCCTGGCCTTGGCCTCTTCTGGGGCTTAGAGCTCCAGGACTTTTGGGCCTG
TGCACCCCTCAGCGTCCCTCTTACGACTCCGGCGAGGACGGCCAGGTGCCTGGTGGACTCTTGCACGTGCTCAGC
CACGAGACCTCATGTGCGCTGTCTGAGCCACCTGTGTCTCAGATGTTCCAGGTCATCCAGCCAGAGCGTGCG
CTGTACATCCAGGCCAACAACTGCGTGGAGGCCAAGGACTGGATCGACATTCTCACCAAAGTGAGCCAGTGCAAC
CAGAAGCGCTCACCGTCTACCACCCGTCCGCCTACCTGAGCGGCCACTGGCTGTGCTGTAGGGCGCCATCCGAC
TCGGCTCCGGGCTGCTCGCCCTGCACTGGCGGCCTCCAGCCAACATCCAGCTGGACATTGATGGGGACCGTGAG
ACGGAGCGTATCTACTCCCTCTTCAACTTGTACATGAGCAAGCTGGAGAAGATGCAGGAGGCCTGTGGGAGCAAA
TCTGTGTATGACGGCCCGGAGCAGGAGGAGTATTGACGTTTCGTCATTGACGACCCCCAGGAGACCTACAAGACG
CTAAAGCAAGTCATCGCTGGGGTTGGGGCTTTGGAGCAGGAGCACGCCAGTATAAGAGGGACAAGTTCAAGAAG
ACGAAATATGGAAGCCAGGAGCACCCCATCGGAGACAAGAGCTTCCAGAACTACATCCGGCAGCAGTCCGAGACC
TCCACTCATTCCATTAAAGTCTGCGGGACGCGCCAGTGGCGCCAGCAAGCTGCCCATGCAAAGCCGCAGCCTT
TGGGAGGGAGAAGAGAAGGAAGAGCGCAGAGCCGGCAAAGTGAGATGCACGCCGTCCCGGGCCATAGACAAGTGG
CGCTGGGGTTTCCCTCTCCAGAACCGCTGCCACCACCGCCACGCCCTCCGAGAAAGCCACCTGGCCCTGTGG
AACGTGTGCTCATTGATTCTGTGCTTTTTGCTCCTTGTGTTGTGGGGATCTGGGGATCAGCTGAAGGATCAGGAA
GTGTGGGCTGTGCCCTAGCCACACCACAGCCAGCCTCAGGGAGCCACGGCCCGTCTAGTCGACTGTGACATGCAC
CTCCGGCCGTGTGTGCGTCAGTCTCGTGCACGTCTGTCTTGCCTTGCACGGTGCCTGTGACGCTGGGCTCTGTGG
CTCTGTGCCCCGGGAGGCCCTGTGGCCCCGCTCGGCTTTCGGCTTCATCACATTGGGAGGTTGAGAGCATTACTC
TCCCCTGTGCTGCCATCCAGGCAGCCATGGGAGGCGGCCTCCCTGTTCCACTTTCGAGGTTTCGTTTGATTCTT
GGCTGAGGGGTCAGTTTTATGGCTGGGAGGTGCAGAATTACACAGAAGTCCCAGTCTGAGGATGTCCTTGGTGCT
TGGGGGATACGGGTTCTGTCCACAGAGTCCCTTGGAGGGAAAGGTGTGGGCTCCAGCTTCTCCAGGCGTCTGCGG
AGCCACAGTTGAAGCCACATCGTTTTGCTGTTGAATGGGGTTTAAATCAGAATTAACATTTGCCACCCCCCG
TGGAAGTTTGAAGATTTTAAAAATAGAAATGTACATTTTTCAAGCTGTTTTTCTTTATGTTTTGAAGGACCATT
TTTAATTAGCTCTTTGATACAAAGTAAGTACAGAACGTCAAAACCTATACCCACTAAAGGGAAGGCTGCCGGGAAG
GCAAATGGAACAGGAATGGAGCCTGTCTCAGGAAGGCCAGCTGCAGGTCCTCCAGAAAATCAAAGAAGGGAAGAA
ACTCTGAGTTTGAGGTACAGGGGCTTCGGGGTGACAGCTCCCTCCAGGGCCCATGGTCAGTATTGCACCTGTGT
TATGAACCCCCAGATGCTGTGCAGGGCAGGGCGGGGGCTGCTGTTTTATTGGGGAGGGGAGCATCCTAAAAATG
GGGTCCAGGCAGACCCCTCCAGACCTCACACTGCCGAGGAGGCCTTCCCAAAGGGCGTCTCCCGGGATGCAGA
CGGCAGGTGTGTGGGAAGCGCCGTTTAAATACACAGCACGACGTATCCTTGTACCGACTTCTCCCGGTTCTTGTT
TGAAAATACTGTAGTTCAGGCTCTTGATCTAGATGGCAGATAGGAACCTTCTTGTCACAAAAATACTGGAGGAAA
ATGTTGTAAAAATAGACTTTTGACACACAGCTGTTGGGGCTGCACTGAGCTGCAATTTTTAACATGGATTTATA
ACTTAATGTTTCTGTTTATAAAATACTAATGATTTGCAATGTATTTTACTGGCCAATTTAAACAGATGTTTTATT
CTTTCTGAA

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FIGURE 1284

MFQVIQPERALYIQANNCVEAKDWIDILTKVSQCNQKRLTVYHPSAYLSGHWLCCRAPSDSAPGCSPCTGGLPAN
IQLDIDGDRETERIYSLFNLYMSKLEKMQEACGSKSVYDGPEQEEYSTFVIDDPQETYKTLKQVIAGVGALEQEH
AQYKRDKFKKTKYGSQEHPIGDKSFQNYIRQQSETSTHSI

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FIGURE 1285

GTGCAGTTGCGGCTCCAGGGCC**ATG**GCGGAGGAGCAGGGCCGGGAACGGGACTCGGTTCCCAAGCCGTCGGTGCT
GTTCTCCACCCAGACCTGGGCGTGGGCGGCGCTGAGCGGCTGGTGTGGACGCGGCGCTGGCGCTGCAGGCGCG
CGGGTGTAGCGTGAAGATCTGGACAGCGCACTACGACCCGGGCCACTGTTTCGCCGAGAGCCGCGAGCTACCGGT
GCGCTGTGCCGGGGACTGGCTGCCGCGAGGCCTGGGCTGGGGCGGCCGCGGCGCCGCGCTCTGCGCCTACGTGCG
CATGGTTTTCTTGGCGCTCTACGTGCTGTTCTCGCCGACGAGGAGTTCGACGTGGTAGTGTGCGACCAGGTGTC
TGCCTGTATCCCAAGTGTTCAGGCTGGCTAGACGGCGGAAGAAGATCCTATTTTACTGTCACCTCCCAGATCTGCT
TCTACCAAGAGAGATTCTTTTCTTAAACGACTATACAGGGCCCCAATTGACTGGATAGAGGAATACACCACAGG
CATGGCAGACTGCATCTTAGTCAACAGCCAGTTCACAGCTGCTGTTTTTAAGGAAACATTCAAGTCCCTGTCTCA
CATAGACCCTGATGTCCTCTATCCATCTCTAAATGTCACCAGCTTTGACTCAGTTGTTCTGAAAAGCTGGATGA
CCTAGTCCCCAAGGGGAAAAAATTCTGTGCTCTCCATCAACAGATACGAAAGGAAGAAAAATCTGACTTTGGC
ACTGGAAGCCCTAGTACAGCTGCGTGGAAGATTGACATCCCAAGATTGGGAGAGGGTTCATCTGATCGTGGCAGG
TGGTTATGACGAGAGAGTCCCTGGAGAATGTGGAACATTATCAGGAATTGAAGAAAATGGTCCAACAGTCCGACCT
TGGCCAGTATGTGACCTTCTTGAGGTCTTTCTCAGACAAACAGAAAATCTCCCTCCTCCACAGCTGCACGTGTGT
GCTTTACACACCAAGCAATGAGCACTTTGGCATTGTCCCTCTGGAAGCCATGTACATGCAGTGCCCAGTCATTGC
TGTTAATTCGGGTGGACCCTTGGAGTCCATTGACCACAGTGTACAGGGTTTCTGTGTGAGCCTGACCCGGTGCA
CTTCTCAGAAGCAATAGAAAAGTTCATCCGTGAACCTTCCTTAAAAGCCACCATGGGCCTGGCTGGAAGAGCCAG
AGTGAAGGAAAAATTTTCCCCTGAAGCATTTACAGAACAGCTCTACCGATATGTTACCAAACCTGCTGGTAT**TAATC**
AGATTGTTTTTAAGATCTCCATTAATGTCATTTTTATGGATTGTAGACCCAGTTTTTGAAACCAAAAAAGAAACCT
AGAATCTAATGCAGAAGAGATCTTTTAAAAAATAAACTTGAGTCTTGAATGTGAGCCACTTTCCTATATACCACA
CCTCCCTGTCCACTTTTCAGAAAAACCATGTCTTTTATGCTATAATCATTCCAAATTTTGCCAGTGTTAAGTTAC
AAATGTGGTGTCAATCCATGTTTCAGCAGAGTATTTTAATTATATTTTCTCGGGATTATTGCTCTTCTGTCTATAA
ATTTTGAATGATACTGTGCCTTAATTGGTTTTCATAGTTTAAAGTGTGTATCATTATCAAAGTTGATTAATTTGGC
TTCATAGTATAATGAGAGCAGGGCTATTGTAGTTCCCAGATTCAATCCACCGAAGTGTTCACTGTCTATCTGTAG
GGAAATTTTGTGTTGCTCTTTGCTGATCCATAGCGAGAGTGCTCTGTATTTTTTTTAAGATAATTTGTAT
TTTTGCACACTGAGATATAATAAAAGGTGTTTATC

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FIGURE 1286

MAEEQGRERDSVPKPSVLF LHPDLGVGGAERLV LDAALQARGCSVKI WTAHYDPGHCF AESREL PVR CAGDWL
PRGLGWGGRGA AVCA YVRMVF LALYVLF LADEEFDVV VCDQVSACIPV FRLARRRKKILFYCHFPD LLLTKRDSF
LKRLYRAPIDWIEEYTTGMADCILVNSQFTAAVFKETFKSLSHIDPDVLYPSLNVTSFDSVVPEKLDDLVPKGKK
FLLLSINRYERKKNLTLALEALVQLRGRLTSQDWERVHLIVAGGYDERVLENVEHYQELKKMVQQSDLGQYVTF L
RSFSDKQKISLLHSCTCVLYTPSNEHFGIVPLEAMYMQCPVIAVNSGGPLESIDHSVTGFLCEPDPVHFSEAIEK
FIREPSLKATMGLAGRARVKEKFSPEAFTEQLYRYVT KLLV

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FIGURE 1287

AAGTAAGAATTATAAATCTATCTCAGTTAAAAGTAGGATCTTTGTTTTTATTCAGATATTTTGAAAGTTTAGAAG
CATTTTGTATGCTACTTTGGTATTTCTTAAGTATAGTCAGCAGGAAAGGTAACCTGTTTTATGCAAAATTTTTT
TAATTTGTCAAATGTTTTTAGTGTGTCTACTTTCTGAAATAGTCTCAATATCCTGTCTGTATCCTAGGCAGATAA
CTACACAAGAACAAAACGCTATATAGAAAAGAAAATATTTGAGGAAATCTTAAATCCATAAGAAAGTAATTCTT
GCAAGAATGTTGGCTACATATTTTTTTTTCTGTCTGAATAAATTACATCATTAGGTCTGTTGAAGCTTTTGAAG
CTACCACTATTCTTTCTGGGATAAAGGCTAATTACTGATTTATCTGCCCTCAAAATCCCAGAGTTAATTCTAATT
GAGTACTAAATTAACAGTAAGTAGTTAACACAGAGAACTAAAATTTAACCGCATTATATCACTGTATATATTTCT
CATGATTTTTTGCTAATTAGAGCATTACTTAACCAGTAATAAACTNNNNNNNNNNNNNNNNNNNNNNNNNNNNNN
NNGTGTGTGTGTGTATATACTTGGCTCTGACACAACCTCTGGTGCTTAATTAGGATATGTTCTATTATGTATTTTG
AATGTTTATCCTGCTAGTGCGATGAACTTTTGTTGGAAAAGCAGAATTAGAAGGAACAGTTTTTCAATCAGTTTC
ATTTGGTAATTACAGGAAAACCTTGAGTTGCTCTAATTTAATTTTTCCAATTAATACATTTAGACTTTAAATTGC
ATCCGTAATTTCTCTTGGCTGAAAACAGTGGTATTTTAAGACAGTTTTGTTATACATGTGACTTACTTTTGACTC
AGCCTGAGAGGAGGAAATGTAAAGAGATAAGAGATTTGGCCCAAAGCAGCAAGAGACTAGTAACCTTGAGCCAGG
ACGAAGCCAAGACAACGTGACTCCCAAGTAGCAGGAGCAGAGGTCGGTCACCTGTGGCATTCTGTTTCATTCCCT
TTTAAAATTATGAGACTTTATAGGCAGTGTAACATCAGCAGGCAGCGATGTGATAGGATGTGCGAAAAGCTG
GTCTGATACCATGGCTATAATTACAGAGCTTTAGTTCAATTAGGATTTTGTAATGAGCAAATGACCTTTTTTTC
CAGTGCCCCCTGTAAATAGTTAATATGAGTCCATGCAATCTTGATGCCATTCTCCTGAAGGTGTTGATTTCTGG
TACCCAGCCAGCTTAGCTTTGGCTGCTGGAAGCACAGTAGGTACTGATGATTACTTCTGGAATCTTGACAGGC
TTATTGTACTGTGTAATGGGGAAAAGTTAAAGTATAATGTTTGGTGTTAATAAATGACTGATGTGAAAATAGGAA
CATGTGTCTTTAATATCAAATATGGCTTTATTTGCAGTGAAATCTAAATTCCTTATTCTACAGTAGTATTTCTT
GCCCTGTGTTGTATATTTTCTAAATACATTTTTTCTGACAGTGGCTTTAGGCCAGTTGAACACACTTAGACTGA
AAGTGTTTAACTTAAAGAGATCAGTCCAGAAACCATGATAAATTAGAATCTTTATCTGGAATTACCAAATTA
TTTAAAATCATGGTCCAGAAGAGAACAACATTCATGGTTTTTTTTTATCCTACTGCTCATTTTTTAGGTCTGTGTT
TACATCTAGTCTCTACTATTTGTGAAGTATGTCATTATTTTTTTCAAGTTCTTCTTTGACTTAACTGAAAAATA
TATTCCAAATTTCTAATGTAACATGAAAAGAGAAATACAATTTTTGCTTAAAAGACATTTTTTAAAAGCGTTCA
ATTCAGTAATCATTTCTGTTAATACAGGAAGTTTTTTTGGCTTGCCAGTTATATACTGTGGGTATTTTTTAAAT
GTGCTACCCCTGGGTGTCTCATATCACCTTGCGTAATCATGTATTACAAAGTTGATAATTGTCATTTCTCAGA
TGTCTGTATGTTACATTGGCAGCAGTAAAATGTTTTAATGTTGTACCTTTTAAATAATTGTGTTGATTAACAT
GCCTCATATTTTCTGGGGAACTTGAAATATATCTAAACAAAAAAGGTCTGTTATAAATAGGAATTGGCATTTC
TTGTTAATGTTTTTCTCATAAAAATAGTTACACCAAAAGTGACATATTGTCTATTACATGGGCCCAATCAGTA
TTAAAGTACTCCCTTACTCAAAAATATTAATAAATAATTATGACACTTAGTAGCATTTTCATTGATTGTTTCA
AAAGATCTTCATAATGGTCAAATTGTCCAATTCACAAAAGAGTGAGAAAGTTGTTTTCAGTACTGGGAATTTTA
AACCTTAGTTTTAAGACCAAAAATATCTCTTATTAGCTTGAACATTTTGTGATTACTTTTCCCTCCCGGATCTA
GTCCTTTTAAGGAGTAAGTCTAAAGAATGAGGCCATGAAGTCACTATTCTCCACCTCAGTTTGTCTCCTGGT
ACTTAGCTGGCCTATCGCTTTGTGTGGCAATACCCCTGGGTGCTTCCCCACTCAGCCTTCTGTATCTGCTGTT
ACAGGACATGCCATTATGTCTT

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FIGURE 1288

MKSLFPPTSVCLLVLSWPIALCGNTPGSLPHSAFCICCSQDMPLC

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FIGURE 1289A

TACTGGACAAACATTTCTCTCCAAGGACACAGCTCTCTGCCTCCATGTCAACACCTTTGAAGGACTGACTGATTCC
CTCGGCTGGTGCCAGTGCTGCTCTGCCATGGGGCCCGCGGGAGCCTGCTGGGCAGCGGACAGATGCAGATCA
CCCTGTGGGGAAGTCTGGCAGCTGTCGCCATTTTCTTCGTCATCACCTTCTCATCTTCCCGTGCTCTAGTTGTG
ACAGGGAAGAAGCCGCGACAGCATAGTGGGGACCATGAGAACCTGATGAACGTGCCTTCAGACAAGGAGATGT
TCAGCCGTTTCACTTAGCCTGGCAACAGATGCTCTGCCAGCAGTGAGCAGAATGGGGCACTCACCATGGGG
ACATTCTTTCAGAGGACAGTACTCTGACCTGCATGCAGCATTACGAGGAAGTCCAGACATCGGCCTCGGATCTGC
TGGATTCCCAGGACAGCACAGGGAACCAAAATGTCATCAGAGTCGGGAGCTGCCAGAATCCCTCCCAGAGCG
CAGTGGATACCATGCTCACGGCGAGAAGTGTGGACGGGGACAGGGGCTGGGGATGGAAGGGCCCTATGAAGTGC
TCAAGGACAGCTCTCTCCAAGAAAACATGGTGGAGGACTGCTTGTATGAACTGTGAAGGAGATCAAGGAGGTGG
CTGCAGCTGCACACCTGGAGAAAGGCCACAGTGGCAAGGCAAAATCTACTTCTGCCTCGAAAGAGCTCCCAGGGC
CCCAGACTGAAGGCAAAGCTGAGTTTGCTGAATATGCCTCGGTGGACAGAAACAAAAATGTCGTCAAAGTGTTA
ATGTAGAGAGTATCCTTGGAATTCATGTGATCCAGAAGAGGAGGCCCCACCACCTGTCCCTGTTAAGCTTCTGG
ACGAGAATGAAAACCTTCAGGAGAAGGAAGGGGGAGAGGCGGAAGAGAGTGCCACAGACACGACCAGTGAAACTA
ACAAGAGATTTAGCTCATTGTCATACAAGTCTCGGGAAGAAGACCCCCACTCTCACAGAAGAAGAGATCTCAGCTA
TGTACTCATCAGTAAATAAACCTGGACAGTTAGTGAATAAATCGGGGCAGTCGTTACAGTTCCGGAGTCCACCT
ACACCTCCATTCAAGGGGACCCACAGAGGTACCCTCCTCTGTAATGATCTCTATGCTACTGTTAAAGACTTCG
AAAAAACTCCAAACAGCACACTTCCACCAGCAGGGAGGCCAGCGAGGAGCCAGAGCCTGATTATGAAGCGATAC
AGACTCTCAACAGAGAGGAAGAAAAGGCCACCCTGGGGACCAATGGCCACCACGGTCTCGTCCCAAAGGAGAACG
ACTACGAGAGCATAAGTGACTTGCAGCAAGGCAGAGATATTACCAGGCTCTAGCAACCCAGAAGACAACCCTGGG
TAGCCTGTGATCAGTGTCTGGAGACGTTTCTTCTGTGGAAGAGAAGAAGTGACACAAACCTATACTTCATATGCT
GCTTTAGTCACTGAAGATGGTTGGAGAGGCCCTGTGACTGTTCTCCAGTTGTTTCAGTTTCTGAGACAGAGAG
GTACGGACTAGGCTGCACCTGAGTGTGCCCTGCCTGCCAGATGGACAGGTACACCCAAGCACATCTCCCTGCTG
CACCTCACCACCCACAAAAGATCCAGCTGTGAGTGGTCTCATCTCATTAGTGAGGAAAGCCAAGCTGTATGGA
AAAGCTGCACTCACCAGGACCACAATGCCCCGGCCTAAAGTACTGCCATTTCAGAAAAGCAGGTTTTTCTTCCT
CTCTTTCTTTTCTCTGTCTGTACTGACTTTAAGGCTTTTTCCCCCTTGAAATGTCCAGATTCTGTGGTTTAT
CCCAAGGAAATTTTACACAAAGCTTGGCCTTTGCCCTCAATATAGGTGTTTTAGGATGGTGACAAACCATGGCT
GCTGCTTTCTGCCCAGCTCGCCAGTCTCCCCAAAGAGTTGCGCATCAGCACCTGGGGATCTGGACCCTGCGGGT
GAAGGGATGGGGAGGGACGTCCCTGGAGTCTCTTCTGTCTTTGTTCTTCTTATTTTGGCATTTCGATATCAGCAG
CCTCTCCCCAAAGTACTTGAAGTCAGTTTTAGATGCTTTATTTTATTTTCTAGTCAAAAACGTGTTTCCCCCAG
TGTTTGAAACTCGTCCGAATCTTTTTCAGTATTTTCCATGAGTATTGTGGTACTTCTAGACTTGTTTAAAGCCAG
AACTCATTCTTCAAAACAGAGAGCCTTAATCTTTATGTTGGGACACAGACCACATATTTGGACGGCAGCCATGC
ATCCATCGCTGAAGGGCTGTGGACATGAATGTGTATTTCCCATGGTCTCCGCTGCCACACCAACAGTGTGGCAT
CTCATAAGTTAACTGCTACCCTAAGGTAATCTAAGATTAAATGTAAACATTTATTTTGTATGTAAGTTTATA
AGATGTTTTATGTTCAATGCCTAATTTCTCAAAAGTGCCAGAAAAAATGTATATTAGCTATTTTGATTTTATGT
ACAATGATTTATACTCTCCTTTTGAAAAGATACCATAAAGCACATAAGCTAGATCACTACAAGGAGCTGTTATCT
TTTTTCTAATCAAGTGTTTAAACACTGATGGTTTTTAAAGACTCACCTTTTTAAATGGTACTTGGAGCTCCTGA
TTCAAATTACCTAGACCCCTAGAGAAATAAATGGAATATACATAAATAATCATTTTTCAGTGGTTTATGGTGGGC
AATATTGCAATATTTGAAATGGTAAAAATGGAAGAAGAACAAAATATGATGAGAGGTGGCTGTGAATTATAAAC
CTCATAAAAGTGTCATAATTCCATTAAAGGTTTAAATTATTTTTTCAGAAAACAGTGATGAATTCTGTAGTCCAG
TGCTTGCCAATGCAAATTGCCTATTGGAATCTTCTTCTATATTTTACAAACATCAGTGGCTGAAATAGCTCAGA
GTAAGAGCTCAGCCTGGTTTGAATTTAATCATCTCTTTAGATCTTATAAGGCCAGCATTAGGAACTTGTTCACT
TTTCATTTTCAAAGGAGCCTAGTTGAAGTGCTATTATGAGTGTGGGCTATGGAAAGACAGCTTTTCTTACACTGA
TAAAGAAAAAAATGAGGAAATTATTTTCATCCCCTTGTGACATCTGTGACTTTTTGGATTTAATAATCTTGCTGT
TTTTCTCTTTATGACAAAGAATATAATTGGGAGGATGAAGTGCTTAAAAATTTAGAGAGCAGCTCACTGGAA
TGTTTTTCCATCCCTGTATTTCATGGCTTGACTTTGTGACTGCTCTACACTGCATGCTGACATTGCAGAGTGAGC
TATGTTGAGGTAACTGGTTGGTTGTCAATTTTGTCAATCAGCCTGGTCTCTCCCATGAAGATGTCGTGTGCAT
AAGCACAATCATCACTGATTAGAAGATCACAGCAGAATACCCTTGGATTAGAGAGAAGTTCGTACCTTGCATTTT
TCTGAATTCTAGTCTCTCATAAGCACTGCTTTGCTGGATGATTTTCACTGCTTTGTGTTAATGACTTTGAGCGAT

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FIGURE 1289B

CTCTCACATGATGGGGTTCTTTAGTACATGGTAACAGCCATGTCATCTTACACACCTAGCATTGTGAATGCTGTA
GTGACATCCTTTATAGGCACCTTACAGCTCAAACTTTTGTTTCATTCATGCCTTACTTATCAAAAAGGCAGGA
AAGTAGGTATGATCTCTAAAGTAAAAAAA

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FIGURE 1290

MGPAGSLGSGMQITLWGSLAAVAIFFVITFLIFPCSSCDREKKPRQHSGDHENLMNVPSDKEMFSRSVTSLAT
DAPASSEQNGALTNGDILSEDSTLTCMQHYEEVQTSASDLLDSQDSTGKPKCHQSRELPRIPPESAVDTMLTARS
VDGDQGLGMEGPYEVLDSSSQENMVEDCLYETVKEIKEVAAAAHLEKGHSGKAKSTSASKELPGPQTEGKAFA
EYASVDRNKKCRQSVNVESILGNSCDPEEEAPPPVPVKLLDENENLQEKEGGEAEESATDTTSETNKRFSLSYK
SREEDPTLTEEEISAMYSSVNKPGQLVNKSGQSLTVPESTYTSIQGDPQRSPPSCNDLYATVKDFEKTNPSTLPP
AGRPSEEPEPDYEAIQTLNREEKATLGTNGHHGLVPKENDYESISDLQQGRDITRL

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FIGURE 1291

AGCTATTTCAAGGCGCGCGCCTCGTGGTGGACTCACCGCTAGCCCGCAGCGCTCGGCTTCCTGGTAATTCTTCAC
CTCTTTTCTCAGCTCCCTGCAGCATGGGTGCTGGGCCCTCCTTGCTGCTCGCCGCCCTCCTGCTGCTTCTCTCCG
GCGACGGCGCCGTGCGCTGCGACACACCTGCCAACTGCACCTATCTTGACCTGCTGGGCACCTGGGTCTTCCAGG
TGGGCTCCAGCGGTCCCAGCGCATGTCAACTGCTCGGTTATGGGACCACAAGAAAAAAGTAGTGGTGTACC
TTCAGAAGCTGGATACAGCATATGATGACCTTGGCAATTCTGGCCATTCACCATCATTTACAACCAAGGCTTGG
AGATTGTGTTGAATGACTACAAGTGGTTTGCCTTTTTTAAGTATAAAGAAGAGGGCAGCAAGGTGACCATTACT
GCAACGAGACAATGACTGGGTGGGTGCATGATGTGTTGGGCCGGAACCTGGGCTTGTTTCACCGGAAAGAAGGTGG
GAACTGCCTCTGAGAATGTGTATGTCAACACAGCACACCTTAAGAATTCTCAGGAAAAGTATTCTAATAGGCTCT
ACAAGTATGATCACAACTTTGTGAAAGCTATCAATGCCATTGAGAACTTGGACTGCAACTACATACATGGAAT
ATGAGACTCTTACCCTGGGAGATATGATTAGGAGAAGTGGTGGCCACAGTCGAAAAATCCCAAGGCCCAAACCTG
CACCCTGACTGCTGAAATACAGCAAAAGATTTTGCAATTTGCCAACATCTTGGGACTGGAGAAATGTTTCATGGTA
TCAATTTTGTGCTAGTCCCTGTTGAAACCAAGCATCCTGTGGCAGCTGCTACTCATTGCTTCTATGGGTATGCTAG
AAGCGAGAATCCGTATACTAACCAACAATTCTCAGACCCCAATCCTAAGCCCTCAGGAGGTTGTGTCTTGTAGCC
AGTATGCTCAAGGCTGTGAAGGCGGCTTCCCATACCTTATTGCAGGAAAGTACGCCCAAGATTTTGGGCTGGTGG
AAGAAGCTTGCTTCCCTACACAGGCCTGATTCTCCATGCAAAATGAAGGAAGACTGCTTTCGTTATTACTCCT
CTGAGTACCACTATGTAGGAGTTTCTATGGAGGCTGCAATGAAGCCCTGATGAAGCTTGAGTTGGTCCATCATG
GGCCCATGGCAGTTGCTTTTGAAGTATATGATGACTTCCTCCACTACAAAAAGGGGATCTACCACCACACTGGTC
TAAGAGACCCCTTCAACCCCTTTGAGCTGACTAATCATGCTGTTCTGCTTGTGGGCTATGGCACTGACTCAGCCT
CTGGGATGGATTACTGGATTGTTAAAAACAGCTGGGGCACCGGCTGGGGTGAGAATGGCTACTTCCGGATCCGCA
GAGGAACTGATGAGTGTGCAATTGAGAGCATAGCAGTGGCAGCCACACCAATTCCTAAATTGTAGGGTATGCCTT
CCAGTATTTTATAATGATCTGCATCAGTTGTAAAGGGGAATTGGTATATTACAGACTGTAGACTTTCAGCAGCA
ATCTCAGAAGCTTACAAATAGATTTCCATGAAGATATTTGTCTTCAGAATTAAACTGCCCTTAATTTTAATATA
CCTTTCAATCGGCCACTGGCCATTTTTTTCTAAGTATTCAATTAAGTGGGAATTTTCTGGAAGATGGTCAGCTAT
GAAGTAATAGAGTTTGCTTAATCATTGTGAATTCAAACATGCTATATTTTTTAAATCAATGTGAAAACATAGAC
TTATTTTTAAATTGTACCAATCACAAGAAAATAATGGCAATAATTATCAAACTTTTAAATAGATGCTCATATT
TTTAAATAAAGTTTTTAAATAACTGCA

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FIGURE 1292

MGAGPSLLLAALLLLLSGDGAVRCDTPANCTYLDLLGTWVFQVGSSGSQRDVNCSVMGPQEKKVVVYLQKLD
TAYDDLGN SGHFTIIYNQGF EIVLNDYKWF AFFKYKEEGSKVTTYCNETMTGWVHDVLGRNWACFTGKKVGT
ASENVYVNTAHLKNSQEKYSNRLYKYDHN FVKAINAIQKSWTATTYMEYETLTLGDMIRRS GGHSRKIP
RKPAPLTA EIQQKILHLPTSWDWRNVHGINFVSPVRNQASCGSCYSFASMGMLEARIRILTNN SQTPILSP
QEVS CSQYAQGCEG GFFPYLIAGKYAQDFGLVEEACFPYTGTDSPCKMKEDCFRYY SSEYHYVGGFY
GGCNEALMKLELVHHGPM AVAFEVYDDFLHYKKG IYHHTGLRDPFNP FELTNH AVLLVGYGTD
SASGMDYWI VKN SWGTGWGENGYFRIRRG TDECAIESIAVAATPIPKL

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FIGURE 1293A

CGACTCCTTAGAGCATGGCATGGCTCAGAGGTGCTGGTAAACTGATGGGGGTTTTTGCTGTCCCTCCCTCAGC
GCCGACACC**ATG**TGGATCCAGGTTTCGGACCATGGACGGGAGGCAGACCCACACGGTGGACTCGCTGTCCAGGCTG
ACCAAGGTGGAGGAGCTGAGGCGGAAGATCCAGGAGCTGTTCCACGTGGAGCCAGGCCTGCAGAGGCTGTTCTAC
AGGGGCAAACAGATGGAGGACGGCCATACCCTCTTCGACTACGAGGTCCGCCTGAATGACACCATCCAGCTCCTG
GTCCGCCAGAGCCTCGTGCTCCCCACAGCACCAAGGAGCGGGACTCCGAGCTCTCCGACACCGACTCCGGCTGC
TGCCTGGGCCAGAGTGAGTCAGACAAGTCTCCACCCACGGCGAGGCGGCCGCCGAGACTGACAGCAGGCCAGCC
GATGAGGACATGTGGGATGAGACGGAATTGGGGCTGTACAAGGTCAATGAGTACGTTCGATGCTCGGGACACGAAC
ATGGGGGCGTGTTTGGGGCGAGGTGGTCAGGGTGACGCGGAAGGCCCCCTCCCGGACGAGCCCTGCAGCTCC
ACGTCCAGGCCGGCGCTGGAGGAGGACGTCAATTTACCACGTGAAATACGACGACTACCCGGAGAACGGCGTGCTC
CAGATGAACTCCAGGGACGTCCGAGCGCGCGCCCGACCATCATCAAGTGGCAGGACCTGGAGGTGGGCCAGGTG
GTCATGCTCAACTACAACCCCGACAACCCCAAGGAGCGGGGCTTCTGGTACGACGCGGAGATCTCCAGGAAGCGC
GAGACCAGGACGGCGCGGGAACCTCTACGCCAACGTGGTGCTGGGGGATGATTCTCTGAACGACTGTTCGGATCATC
TTCGTGGACGAAGTCTTCAAGATTGAGCGGCCGGGTGAAGGGAGCCCCATGGTTGACAACCCCATGAGACGGAAG
AGCGGGCCGTCTTGAAGCACTGCAAGGACGACGTGAACAGACTCTGCCGGGTCTGCGCCTGCCACCTGTGCGGG
GGCCGGCAGGACCCCGACAAGCAGCTCATGTGCGATGAGTGCGACATGGCCTTCCACATCTACTGCCTGGACCCG
CCCCCTCAGCAGTGTTCAGCGAGGACGAGTGGTACTGCCCTGAGTGCCGGAATGATGCCAGCGAGGTGGTACTG
GCGGGAGAGCGGCTGAGAGAGAGCAAGAAGAAGGCGAAGATGGCTTCGCCACATCGTCTCACAGCGGGACTGG
GGCAAGGGCATGGCCTGTGTGGGCCGACCAAGGAATGTACCATCGTCCCGTCCAACCACTACGGACCCATCCCG
GGGATCCCCGTGGGCACCATGTGGCGGTTCCGAGTCCAGGTGACGAGTCCGGGTGTCCATCGGCCCCACGTGGCT
GGCATAACGCGCGGAGCAACGACGAGCGTACTCCCTAGTCTGGCGGGGGCTATGAGGATGACGTGGACCAT
GGGAATTTTTTACATACACGGGTAGTGGTGGTCGAGATCTTTCGGCAACAAGAGGACCGCGGAACAGTCTTGT
GATCAGAACTCACCAACACCAACAGGGCGCTGGCTCTCAACTGCTTTGCTCCCATCAATGACCAAGAAGGGGCC
GAGGCCAAGGACTGGCGGTTCGGGAAGCCGGTCAGGGTGGTGCGCAATGTCAAGGTGGCAAGAATAGCAAGTAC
GCCCCCGCTGAGGGCAACCGCTACGATGGCATCTACAAGTTGTGAAATACTGGCCCGAGAAGGGGAAGTCCGGG
TTTCTCGTGTGGCGCTACCTTCTGCGGAGGGACGATGATGAGCCTGGCCCTTGGACGAAGGAGGGGAAGGACCGG
ATCAAGAAGCTGGGGCTGACCATGCAGTATCCAGAAGGCTACCTGGAAGCCCTGGCCAACCGAGAGCGAGAGAAG
GAGAACAGCAAGAGGGAGGAGGAGGAGCAGCAGGAGGGGGGCTTCGCGTCCCCAGGACGGGCAAGGGCAAGTGG
AAGCGGAAGTCGGCAGGAGGTGGCCGAGCAGGGCCGGGTCCCCGCGCCGACATCCAAGAAAACCAAGGTGGAG
CCCTACAGTCTACGGCCCAGCAGAGCAGCCTCATCAGAGAGGACAAGAGCAACGCCAAGCTGTGGAATGAGGTC
CTGGCGTCACTCAAGGACCGGCCGAGCGGCAGCCCGTTCCAGTTGTTCTGAGTAAAGTGGAGGAGACGTTT
CAGTGTATCTGCTGTGAGGAGCTGGTGTTCGGGCCCATCACGACCGTGTGCCAGCACACGTGTGCAAGGACTGC
CTGGACAGATCCTTTCGGGCACAGGTGTTAGCTGCCCTGCCTGCCGCTACGACCTGGGCCGAGCTATGCCATG
CAGGTGAACCAGCCTCTGCAGACCGTCTCAACCAGCTCTTCCCCGGCTACGGCAATGGCCGGT**GTAT**CTCCAAGC
ACTTCTCGACAGGCGTTTGTGTAACAGTGTGCGAGGGCTCGTTTCATCGGCACTGATTTTGTCTTAGTGGCT
TAACTTAAACAGGTAGTGTTCCTCCGTTCCCTAAAAAGGTTTGTCTTCCTTTTTTTTTATTTTTATTTTTCAA
TCTATACATTTTCAGGAATTTATGTATTCTGGCTAAAAGTTGGACTTCTCAGTATTGTGTTTAGTTCCTTTGAAA
CATAAAAGCCTGCAATTTCTCGACAAAACAACAAGATTTTTTAAAGATGGAATCAGAACTACGTGGTGTGGA
GGCTGTTGATGTTTCTGGTGTCAAGTTCTCAGAAGTTGCTGCCACCAACTCTTTAAGAAGGCGACAGGATCAGTC
CTTCTCTAGGGTTCTGGCCCCAAGGTGAGAGCAAGCATCTTCTGACAGCAATTTGTTCATCTAAAGTCCAGTGA
CATGGTTCCCCGTGGTGGCCCGTGGCAGCCCGTGGCATGGCGTGGCTCAGCTGTCTGTTGAAGTTGTTGCAAGGA
AAAGAGGAAACATCTCGGGCCTAGTTCAAACCTTTGCCTCAAAGCCATCCCCACCAGACTGCTTAGCGTCTGAG
ATCCGCGTGAAAAGTCTCTGCCACGAGAGCAGGGAGTTGGGGCCACGCAGAAATGGCCTCAAGGGGACTCTGC
TCCACGTGGGGCCAGGCGTGTGACTGACGCTGTCCGACGAAGGCGGCCACGGACGGACGCCAGCACACGAAGTCA
CGTGCAAGTGCTTTGATTCTGTTCTTTCTTCTAAAGACGACAGTCTTTGTTGTTAGCACTGAATTATTGAAAA
GTCAACCAGATTCTAGAACTGCGGTATCCAGTTCTTCTGACACCGGATGGGTGCTTGGGAACCGTTTGGACC
TTATAGATCATTTACATTCAATTTTTTAACTCAGCAAGTGAGAACTTACAAGAGGGTTTTTTTTTAATTTTTT
TTCTCTTAATGAACACATTTTCTAAATGAATTTTTTTGTAGTTACTGTATATGTACCAAGAAAGATATAACGTT
AGGGTTTGGTTGTTTTGTTTTGTATTTTTTTCTTTTGAAGGGTTTGTTAATTTTTCTAATTTTACCAAAGT

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FIGURE 1293B

TTGCAGCCTATACCTCAATAAAACAGGGATATTTTAAATCACATACCTGCAGACAACTGGAGCAATGTTATTTT
TAAAGGGTTTTTTTACCCTCCTTATTCTTAGATTATTAATGTATTAGGGAAGAATGAGACAATTTTGTGTAGGCT
TTTTCTAAAGTCCAGTACTTTGTCCAGATTTTAGATTCTCAGAATAAATGTTTTTCACAGATTGAAAAAAAAAA
AAA

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FIGURE 1294

MWIQVRTMDGRQTHTVDSLSRLTKVEELRRKIQELFHVEPGLQRLFYRGKQMEDGHTLFDYEVRLNDTIQLLVRO
SLVLPSTKERDSELSDTDSGCCLGQSESDKSSTHGEAAAETDSRPADEDMWDETELGLYKVNEYVDARDTNMGA
WFEAQVVRVTRKAPSRDEPCSSSRPALEEDVIYHVKYDDYPENGVVQMNSRDVRARARTIIKWQDLEVGQVVML
NYPNPNKERGFWDYDAEISRKRETRTARELYANVVLGDDSLNDCRIIFVDEVFKIERPGE GSPMVDNPMRRKSGP
SCKHCKDDVNRLCRVCACHLCGGRQDPDKQLMCDECDMAFHIYCLDPPLSSVPSEDEWYCPECRNDASEVVLAGE
RLRESKKKAKMASATSSSQRDWKGGMACVGRTECTIVPSNHYGPIPGIPVGTMMWRFRVQVSESGVHRPHVAGIH
GRSNDGAYSLVLAGGYEDDVHGNFFTYTGSGGRDLGNGKRTAEQSCDQKLTNTNRALALNCFAPINDQEGAEAK
DWRSGKPVVRVVRNVKGGKNSKYAPAEGNRYDGIYKVVKYWPEKGKSGFLVWRYLLRRDDDEPGPWTKEGKDRIKK
LGLTMQYPEGYLEALANREREKENS KREEEEQEGGFASPRTGKGKWKRSAGGGPSRAGSPRRTSKKTKVEPYS
LTAQQSSLIREDKSNAKLWNEVLASLKDRPASGSPFQLFLSKVEETFQCICQELVFRPITTVQCQHNVCCKDCLDR
SFRAQVFSCPACRYDLGRSYAMQVNQPLQTVLNQLFPGYGNGR

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FIGURE 1295A

GCGGCCGCAGCCCCGCGCCGAGCAGGCGCCGCGGGCCAAAGGGCCGCCCGAGACGGTCCCCAGAGAGCCACCGGAGG
AGCAGCTCACCTGAGAGACGGAGCCCCGGCTCGCCCGTGTGCAGAGCGGACAAGGCCAAAATCTCAGCAAGTTCGG
ACCTCTAGTACAATAAGGCGAACCTCCTCTTTGGATACAATAACAGGACCTTACCTCACAGGACAGTGGCCACGG
GATCCTCATGTTCACTACCTTCATGCATGAAAGACAAAGCTACTCAGACACCTAGCTGTTGGGCAGAAGAGGGT
GCAGAAAAGAGGTACATCAGCGTTCTGCGTCATGGGGGAGTGCTGATCAACTAAAAGAGCAGATCGCCAAACTG
AGGCAGCAACTACAACGCAGTAAACAGAGTAGTCGTACAGTAAGGAGAAAGATCGCCAGTCACCTCTTCATGGC
AACCATATAACAATCAGTCACACTCAGGCTACTGGATCAAGGTCAGTTCCTATGCCACTGTCAAATATATCAGTG
CCAAAATCATCTGTTTTCGCGTGTGCCCTGCAATGTAGAAGGAATAAGTCCTGAATTAGAAAAGGTATTCATTAAA
GAAAATAATGGGAAGGAAGAAGTATCCAAGCCGTTGGACATACCAGATGGTCGAAGAGCTCCACTTCCTGCTCAT
TACCGGAGCAGTAGTACTCGCAGCATTGACACTCAGACTCCTTCTGTCCAGGAGCGCAGCAGTAGCTGCAGCAGT
CATTCACCCCTGTGTCTCCCCTTTTTGTCCCCCGGAATCCCAGGATGGTAGCCCTTGCTCAACAGAAGATTTGCTC
TATGATCGTGATAAAGACAGTGGGAGTAGCTCACCGTTACCCAAGTATGCTTCATCTCCCAAACCAACAACAGC
TACATGTTCAAACGGGAGCCCCCAGAGGGATGTGAGCGAGTGAAGGTCTTTGAGGAAATGGCGTCTCGTCAGCCT
ATCTCGGCCCTCTCTTTTCATGTCTTGACAAAAACAAGGTTAATTTTCATCCCAACCGGATCAGCTTTCTGTCTT
GTAAACTTCTAGGCCCTCTTACCTGCTTCTGACCTTATGCTCAAGAACTCTCCTAACTCTGGCCAGAGCTCA
GCTTTGGCAACTCTGACCGTTGAGCAGCTCTCATCCCGGGTTTCCTTTACGTCTCTTTCTGATGACACCAGCACA
GCGGGCTCCATGGAGGCCTCTGTCCAGCAGCCATCCCAGCAGCAGCAGCTCCTGCAGGAAGTGCAGGGTGAGGAC
CACATCTCTGCTCAGAACTATGTGATCATCTTAAAAAAGGGGGAGCTGGCCTCCACCCTGTGTTCCATGGATTCCGG
AACAAGATTTTCAGACATCTGCATGAGTGACAACTTTCTGAACACCACCACCACCAATAATACTTATCAGCATCA
TAAAGTATCTCTTAAACACTGATCTTGGCAGGGACGGAACCTCTATTCAGCAGTTTTTGTGGAAAGCAGTAATGC
TTGCAAAACGTGTGTGTCATTTCAGCATTTTAAAGTGGAGACTATGCATTTTCATAGTATATTTGACAGATTAGTACT
GTGTCTGTGTTTTGTTCAGATTCTTCAGTATAAATAAGCTCTATATCAAAAAGTTGCCTGTCTAAATAGAAAA
TGTCTTGTGTGTTTTGTCTATGGAAAATACTGTAATTCAGGATTATGTTTACAATTGATCCAGGTGTTTGT
CTAACTTCTGTAATACATAACAATGCAAAAAAAAAAAAAAAAAAATGGCCACAACAGTTGCACAGTGCCACCCTATG
GCCTAGCTTCAGGTACTTCAGTTGAAGTCTAAACTCAGGTAACCTGGAATGTATATCATATTGGGATATTAAATÀ
TTTCACAGCTAAAAAGCTAAAGAGGGAACATCACTCTTTTGCCCTTTCCTTATTTTATGCATTTCCCTTTCTCAT
TACATTCCACATTCTTAGAATAAGAAGTGCATTCAATCCTAGGAGAATGATAATCCTGGACATGGGTGAACATGA
GGAGAACCAGCAAAATCTGTGGTGTGTTGACATCACTTTGTTCATGTGGTTACAAGTAAAACAACCTGTTGCATTAC
TGTTTCAACATGTGTACATGTGGCTTTTTTAAAAGTTCAGGTGTTGCTCAGTAAAGGACTGTGACAATGTTGCAA
ATAAAGTGTTCAGTACTGGACTGTACATAAACATTCCACATTGTGTGTGATGAAATTTAAAGACAAGAATGTCTA
GAGTTAATTTCAAAATAAGTGAAGTGTGTTGACGGAATGGTTGAGATTTTTTGTGTTAAGTTAGCCATCAGGGTCA
TAACTGTTACCATTTTATCTAAAGACATATTTATATTTAGTTTCTCCCTTGGAATTCCTTATTTTGCAGGTGAA
AAAGTGACATACTTTTTGTTATTGTCTTCCCTCAAGCAGTTTAGGTGCATGATCTTCATTTACATAGAATACTTGG
GTCTCAGAATTGATGCAACATAAGCAGTTTTTTTGGTGACTTACAAGAGCAATAGTTTGAAGCTATCTCATTTA
AGCCTCTCATAATGCATAATCATGAGTAGTTTTTGAAATTTGCAACCTGTGAGGTAGAGCATAAACTCAAGAAAAT
AGCCTTGAACTTGACAGACTTTTGACACAAGTTCTCCACAAAGTGTGAAGAGAGCCCCAGGCATTCCCTGATTGGTC
AATGGGAGAGCCTAACTTTTCATTGTTTTCTTCAGTACAAAGAGTATCCAAAAGCTAAGTTTTTGTATTCCACTAC
TTTCAGTTCAATAAAACCTAGAGTTGTTTCATCTGCGCCTAAAGTGTATGGCACAATTTCTTAAAGAATTAGGGG
AACCAGGTGCCTACAGTTAAAGGAACGTTTCAGTTCCTTTTCATTTCCTGGGTTTTCTTTTATTTTCTAAGA
AGGTTGAAGAAGGATGAGTGATAGAGAAGAAAGCAACACCATTGATTTTTTTTTTTAAGAAATGATATATATATG
TATATGTTTGNNNNNNNNNNNNNNNNNNNNNNNNNNNNNAGTATTCTGTGCATTATTTTGTTCATGATCTCAATTCTCTCTT
TCCACCAAAGTTTGTGTAATATTTTCTCCTGAAGGTGCATTCTGGCTCCTTTAAATTAGTCAGTGTTATATTGT
AGGAGACTGTCTATGGAAGAAAGGACTCAGTTTACTTTTCGTCAATTTTCACAGGGGAACCTTTTAAACAATCTTTT
CAGCAGCAGATACCTTTAACCTAATAATCTCAGGCCTTGATGAAAAATACTATATTTTGTAGATTATGGTTAAAG
GGGGAATAATTACTAGTTCGGTAAGATAAATATGAGCTCCATTGACTTCTGATGTCTGGTTTTAGCATTACATAAT
ATGTTGATCTTACACTCTGCTTTTGTCCAAATAAAATGCAATAGTATCAATATCAATTTTCAGAAAAATGGACTGA
ATATGCTTTTTTGGTGATGAAATCTCATGTACGATATTTATAGTGATGTGCTTTTATTTTCTCATGAGATACTAA
ATATTAATTGTGTTGTACATTTGTTCTTAGCATATATTAAAGTTTTGAACCAAATGTGTTAAAGCTTACGCTTTG

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FIGURE 1295B

CCATGTAAATTTCCCAGAAGTTGTTGAGCTCAAATGTATCCTACATCCAGCTGTAGAAATTTGTCAGAAATTGTT
TAAATTTTGTATATAATTGTACTGTTTAATTCTAGCCATTGCGCTGAACAGTATTTGAGTTACCATATAATATGG
CTTTACACAAGGAAATGTGTGGCTTTTGTGTTTGTATTTTTTCAGTATAGAAGTTCCTGTGTCTTATTAAATAAA
GTTATTAGTAAACTGAAAA

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FIGURE 1296

AAAAPAEQAPRAKGRPRRSPESHRRSSSPERRSPGSPVCRADKAKSQQVRTSSTIRRTSSLDTITGPYLTGQWPR
DPHVHYPSCKMDKATQTPSCWAEEGAERSHQRSASWGSADQLKEQIAKLRQQQLQRSKQSSRHSKEKDRQSPLHG
NHITISHTQATGSRVPMPLSNISVPKSSVSRVPCNVEGISPELEKVF IKENNGKEEVSKPLDIPDGRRAPLPAH
YRSSSTRSIDTQTPSVQERSSSCSSHSPCVSPFCPPESQDGSPCSTEDLLYDRDKDSGSSSPLPKYASSPKPNNS
YMFKREPPEGCERVKVFEEMASRQPI SAPLFSCPDKNKVNFIPTGSAFCPVKLLGPLLPASDLMLKNSPNSGQSS
ALATLTVEQLSSRVSFTSLSDDTSTAGSMEASVQQPSQQQQLLQELQGEDHISAQNYVII

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FIGURE 1297

GAGTAGCTCACCGTTACCCAAGTATGCTTCATCTCCCAAACCAACAACAGCTACATGTTCAAACGGGAGCCCC
AGAGGGATGTGAGCGAGTGAAGGTCTTTGAGGAAATGGCGTCTCGTCAGCCTATCTCGGCCCTCTCTTTTCATG
TCCTGACAAAAACAAGGTAAATTTTCATCCCAACCGGATCAGCTTTCTGTCCTGTAAACTTCTAGGCCCCCTCTT
ACCTGCTTCTGACCTTATGCTCAAGAACTCTCCTAACTCTGGCCAGAGCTCAGCTTTGGCAACTCTGACCGTTGA
GCAGCTCTCATCCCGGGTTTCCTTTACGTCTCTTTCTGATGACACCAGCACAGCGGGCTCCATGGAGGCCTCTGT
CCAGCAGCCATCCCAGCAGCAGCAGCTCCTGCAGGAACTGCAGGGTGAGGACCACATCTCTGCTCAGAACTATGT
GATCATCTAAAAAAGGGGGAGCTGGCCTCCACCCTATGTTCCATGGATTTCGGAACAAGATTTAGACATCTGCAT
GAGTGACAAACTTTCTGAACACCACCACCAATAATACTTATCAGCATCATAAAGTATCTCTTAAACACTGAT
CTTGGCAGGGACGGAACCTCCTATTCAGCAGTTTTTGTGGAAAGCAGTAATGCTTGCAAAACGTGTGTGTCATTCA
GCATTTTAAAGTGGAGACTATGCATTTTCATAGTATATTTGACAGATTAGTACTGTGTCCTGTGTTTTGTTCAGAT
TCTTCAGTATAAATAAGCTCTATATCAAAAAGTTGCCTGTCTAAATAGAAAATGTCTTGCTGTGTTTTGTCTAT
GGAAAATACTGTAATTCAGGATTATGTTTACAATTGATCCAGGTGTTTGTCTTAACCTCTGTAATACATACAAT
GCAAAAAAAAAAAAAAAAAA

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FIGURE 1298

CGGTGCTCGAGGCGGAGGGGAGGAGCGGGGAAGGCGAAAGGAGGGGTTCCGAGGAGAGGGTTTCGATCTCCGTAC
GCACCAGGTGGAGAGCGCGCGCTGGGGAAGGAGGCGTGTTCGAGTAGCGGGAGGGAAGTTGTAGTACGGGTGGGG
AGAACCACACTAAAGGGAGATGGGGGTGAGCAGTTAAGGAACCGCGAGAGCGCCAGGTAGAGAGCTGCCCTTAAT
GGGGGAACCTGGAGAAGAGTGTGAGCGTAGTGGGGAAGAAGGGAGAAGACAAATAGTTTCGGGAATGTGTCTCCG
AGGGCGCGAGCGGGCGCTAGGACCCGGCGTCAAAAAGATGAGGCTTTGGGGCTGTTCGGGGCGCGCTCCCGTTG
GTGACGCGGGGGTGGCGGAGGTCTCCGGCCGGGACGAAGCCCCGAGGGAGTGGATACTCGACAGCCTTCGGCCT
CCGCTCGCTTCTCCCTGCGCGCTTTCCTGCTCCCTTTCCGGCTACAGCCCTGGGGTCGAGCTCTGGTCAAGCG
CATTCCGCCTCTCCTTTGGCCCTGCGGCTTCCTTTGCAACCCGCCGCCACCCTTGCTCTCCGTGGTTTACCCCT
GGGCTCTGAGGCCTGGTGGTAGCGGCCACTGCCGCGGATTGGCTGTTGCGGACCCGGGGCGGGGCAGGTGGGAGA
GGCTCGTTCTCCGCGGGTTTCGTTGTGTTTCGCGCCATGTCGTTTGTCTGAGAGCGGGTGGCGGTTCGGCTCTGCGG
CGCCGCGGTCCCGGCACCCCGGGCCCTGTGGCTCGGCCATCGTATTCCTCCTTTACTCAGGGGACAGCTGGGGT
GAAGGCGAAGTCGACGAGGAGGAGGGATGCGACCAAGTGGCCCCGCGACCTGCGGGCGGAGTTCTCGGCTGGGGCG
TGGTCAGAGCCCAGAAAGCGCTCGGTGCTCCCGCCGGACGGGAACGGGTTCGCCGTTCTGCCCGATAAGCGCAAT
GGTATCTTTCCCGCGGCCGCGGGCAGCAGAGCCAGCCTCGGCGGTGGCCGGTCCAGGTCTCTCTATTCTCTGC
TCGCTGCTCTTCGCCATTCTTCTCGCCTTCCTCCTCGCCATCGCCTACTTGATCGTTAAAGAGTTGCATGCTGAG
AATTTGAAAAATGAAGATGATGTAGACACTGGACTATTAGGATTCTGGACTCTACTTATAATATCCCTAACTGCT
GGATTCTCCTGTTGCAGCTTTTCTTGGACAGTGACTTACTTTGATTCTTTTGAACCAGGAATGTTTCTCCTACT
CCTCTTTCACCTGCCAGGTTCAAGAACTGACTGGACATTCTTCCACATGGGCTATAGCGTGGCGATTTTGAAT
GGCATCGTAGCTGCTCTTACTGTAGCATGGTGCCTCATGTAAACCCACACTGGAGCGATATTGTTGGCAAAACTT
AATCATGATTGTTTTGTAATAACAAGAAGGAGCATCACTGTCTACTCAGAAGACTGAGAAACCTGCTGTTTATTA
TGTAAGTTCAGATATTTATCACAATCATCTCATTATGGAAGACCTTTTAAAGCATTGTTTTAGAATGTCTGAGTA
TTAAGATACAGATTAATTGGGAATATCTGAGTATTAAGTACTTTCTTCAGAGTATAAGATGTTTACCTCATCTTT
TTACTTTTGTGTGTGTAGTTCTTTCAAGTTGTAGGAAACATTTTAAATGGAATTTAAACTCAAAAACCTGAATACA
GGACAATGCTTGCCTTTTCATGTATGTACTACATTTTTTGCTAAGAAATACTGATATTTCTGTTTAGTTGAGCTA
GAAATACTTCTTATTTATACATTTTAGGAAAGCAAATAATGCCTACTACTCCGACTTTTATAGAAGCTACTTTTAA
ATCAGAATATTTAATTTTTGATATTCATATAATTAATAGAAGTTGCATTTATATTTTTTATGGGGCATAGTTCCT
TATGTGTTTTTTTAAATGTATTTTCATACTACATACTGAATTTGTATGTTTTTAAATTTGTTACATCTAGACAACT
GTAAACATTATTTTTTTAGCTAGTGCAAACCTAGTACCTGCCATTTTTTACTAATTTTTTGTCTTTAAAAAAGCAA
AAAAGCACATTGACCTAAGTTGAAAATTAAGTAAGTTTATTTTTAACAAAAATGCCTGAAAAAAGCTAAATTAT
TTAAGTCATTAAGATATTGAGAAAAATTTGAAATTTTACTATCTCTGTTTCCACAATTCCAAATATTTATCTT
GGTGATATATTGTTACTTTAACAGAACTTGCAATATTTTGTTTTTAATAAATATAAACATGAAATTTTTGTATG
TGAGAATGATTGAAGTAGTTTGTCTTAATCTCAAAAATTTAGTTACCAAAGTAGAAAAGGTATTTTGATACTAG
ATATTAAAACTACATATAGTTAATATAATTTTATAATTTTTGTAATTAAATGTGCTTCTGTAATTGTGATATT
TGTTTTCTAAGTAATTAAGCCTTAATTTTTCCCTATGTTACTAAAGACTTTTAAATGTTTAGAAAGTTACCTCAG
TTTTAGAAAGATGGACTACTTACAAAGCTGTTTTCCCTGGCCATAGGAAACTTACAATAAGAAACCATTAAGTA
GTCAAACTGCTTATTCAGGCTAAGTGGGAAATGAATTTGTGCAGTGTGTTCCCTTAATTATCTACTGAATGTGT
TACCGACTAAACAAGGTTTCTAAAAGTCT

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FIGURE 1299

MSFAESGWRSALRRRGPGTPGPVARPSYSSFTQGDSWGEDEVDEEEGCDQVARDLRAEFSAGAWSEPRKRSVLPP
DGNGSPVLPDKRNGIFPAAAGSRAQPRRWPVQVLSILCSLLFAILLAFLLAIAYLIVKELHAENLKNEDDVD TGL
LGFWILLIISLTAGFSCCSFSWTVTYFDSFEPGMFPPTPLSPARFKKLTGHSFHMGYSVAILNGIVAALTVAWCL
M

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FIGURE 1300

AGTAACATGACTAAAAAGAAGCGGGAGAATCTGGGCGTCGCTCTAGAGATCGATGGGCTAGAGGAGAAGCTGTCC
CAGTGTCTGGAGAGACCTGGAGGCCGTGAAGTCCAGACTCCACAGCCGGGAGCTGAGCCCAGAGGCCAGGAGGTCC
CTGGAGAAGGAGAAAAACAGCCTAATGAACAAAGCCTCCAACCTACGAGAAGGAAGTGAAGTTTCTTCGGCAAGAG
AACCGGAAGAACATGCTGCTCTCTGTGGCCATCTTTATCCTCCTGACGCTCGTCTATGCCTACTGGACCATGTGA
GCCTGGCACTTCCCCACAACCAGCACAGGCTTCCACTTGGCCCCTTGATCAGGATCAAGCAGGCACTTCAAGCCT
CAATAGGACCAAGGTGCTGGGGTGTTCCTCCCAACCTAGTGTTCAAGCATGGCTTCCTGGCGGCCCAAGGCCTT
GCCTCCCTGGCCTGCTGGGGGGTTCGGGTCTCCAGAAGGACATGGTGCTGGTCCCTCCCTTAGCCCAAGGGAGA
GGCAATAAAGAACACAAAGCTGAAAAAAAAAAAAAAAAAAAAA

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FIGURE 1301

GGGAGTTGCAGGGGAGAGATGGAAAGGCTAGCAGCTGAAAAAAATAGGTAAATAACCAGTGTATTCCATGTAG
CTGTTAATCTAGTTTGTGGCTTCCATCAGCTGCAGGAGTATTCCATAGTATGCATCCACCATAGTAAATTTATCC
ATTACCTGTTGCTCAAATTTCTGGCTACCTGGAGAAATTAACCCCTGAAGCTAGGGTTCTGAGTACAAGA
TCAGTTCACCAATTAGATTTCTTCATTTGAGATTTGGGAGGTAAAGGCTGTCTTTCTGCTGTTTGGGTTGTTGC
TGCTGGAAAGCAAGTTTATGTACATATGGGGCTTTCTGCAACAGCTTTCCAGCTTTGAAAACCTGCNNNNNNNN
NN
AAAAATAATCTACTCTGTAATAGTATAAGTTTACTACAATAAACTGTGGTTAAGAAGAAAAATTGGCCGGGCAT
GGTGGCTCATGCCTGCCTGTAANN
NCCAGAGTAATGGTTTCTTGACTTTCTGTAGCCCTTGTTCCCTTAGTCTGCTGTGATATTTATGTTGACCTTTATC
ATTTTCTATTCTGAACCCCTCTTAGCATTTAATGTGAAATCTAAGAAATTAGAAGTAGAATGGCTTTTATTGTTT
TGACACCTTTGAAATTATTATTAATAATTTTTCCAGAGCAAAAAGCAACACGCTCAATAAGACTAAACAAAAC
AAAAATAAATGTACATCATTTAATGTCCAGTGGCTCTATTCTACCTGTAAGAAAATGATACAAAACCACTAA
GATATTTTGAAGCCTGACAAATCAGCTTCATGGAAAAAGGTAAAAATGCATTTTTCAACCGAAAGGGCAGATCC
AATAGAAGACCCGCTCCTTAAATAAACATAAAATGTAAAAAGTTGGAAAATTAAGAGTAATGTTCCATCTGGAAA
CTGAACTTTTGTCTTGAACCTGTGTTGGCACCAAGCCTCATACACAGTGAGCTCAATAACTGTTGGGACAAAGG
AAGGAAGGACAAAATGTGTAACCTCCCAGCATCTGGGAGATGCTGTCTCTTGCCTCACTGAGTGTTCCTTTTCTT
TGCTCTCATGTCAATCCCTGAGAACAATGAATCTGGGACAGGCTAAACATCATGATGAAGTTTCTTAAACAGAC
TTTCTTAGTGGAATCCATTTAGATCTGGGTGTGCTCTATGGGGAGTGCTGACGTCAAAGAGCAAAATGCTATAA
GGGGCCCTTTTAAATGAACATTTTCTCATTGAGCAAGCTGGGATTCTCTAATGTAGAAATCAAGCCATCTTTA
TAATTTCACTTCAGATGTTTATGTTTTTGTTTTTTTTGTCTCCAATGATGGTAAAAATAAAACTACGCATTAC
TTAAAGGAGTTTCCCTCACATGTAAACACTGTTAGGAAGTCTGGATTAAGTTGAAAGTCTGTTTTAACTTTTTT
TCTCTCATATACCAAACTCTGTATTTCTCTTAAAGAAGCCCTTAAAGAGAAAGCCCTAATTTTATATCTGACA
GTAAAGTTTGCTGCAAGTGTATGAGTTCAAAACACATCCCTTGTTTTCTGTCCCTAGGGGAAAAGTCATGTAGTTT
TAGCTTGGCTCCAGTGTTAATATTATATTAGTAGCAGCCTTAGAAGAGTGGTCTAAGACTTGAACCTGGAGCAA
TTTTATAGCACAGAATCCTACGAAGATAGGACTGTGAACATTTGTTTTCTTTTTCTGTGTGTCAAACCTAAGTGG
TTTTTGCTTTACCAATAAAATGTCCTCGGCAGAGTAAATTTTAAACGTGAAAATTATAGATCTTGATATTGAATC
CATCAGTGATTCAAGAGATACACCTATTTGCCTAAAACAACCTAAGATGTATTGGTTATGGAATCATGTGTTGGA
TAGGTTCTTAAAGACCTGTTTCTCAAATCTTGACACAGTTTTCAAGGGTGGCTTATTGACTTGCACGGTTGGGCA
GATAATCCAGATTTACCTAAGATTGGGTAAAAAAGTCATCTGTGACTTTGCTGGCAGGGCATTGCTAAGTGGAG
TACAGGATCTAAAAGGGTTTTCTTAGAAAGGGCAATATTGTCCAATGAAGTAAGCAGAAGGACTCTGGGTTAGAA
GCATCTGCACAAAACCTGGTGAGACCTACTCTCCACTGCTCTGCAGCTGGATGGCTGATGGCAGGCTGAGCAGTG
GGGAAGCAGGTTTTAACAACAGGGAGTCCCTCCAGGTCACTGTATATTGAGAAGAAACATAAAACTATTGTCTGT
TACATTCCGAGGTCAGCCTTCTTCTAACGTTTTATAATATGCAATGCCAGCTTCTGGAAAGCAAGTATCATCA
TGTACCAATGCTTTATACACCATCACATTCATGAATTTTTTAGCATGGTCAGAACTTGTTGTAATATGTCTCTT
AGATGATTTTGGGAGATGTGATTTATTTTCATATTTTCAAATGCATTTTCATTTCAAATAAAGTTATCTATTG
AGACAACCGAAAAAAGCGG

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FIGURE 1302

MILGRCDLFFIFSKCISFQIKLSIETTEKKKKS

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FIGURE 1303A

AAAATACTTTGCCAAATGAAATAGACTAGTCAATACATCTGATGTCCATAATTATTGGTAACTCAGTTACCTTCT
AACTAATAGGCTGGTTCAGGAGACTCTCCAGTTTATAAATGGTTCTCTTGGGAGCCTTTGGAAGCTGTATTAAA
TCTTTCAGTCTTTTATTCTAATTTTTTCTCTTAATCTAAATAGAGGCCAGTTATCTATTTTATCAGCTTTTATT
CTTGAAGATTCTCAGATTATGTTTTAGTCCCTTTTAGCTTTAATAGTCCCTTGAAAAATACATTACTGTATAATGT
GGCAATTCTGTAAACAGAGACTTATTACTTGAATGAATAATCCTAAAAATTTAATATTTTAGCTGAAGTTTGAGAT
TTGTGGAATGAACAAAAGAATTAGAACTTTCATATGTTACTTTGTTTCAGTCATCTGCAAAGTATGAAGCTGTA
ATTCTGAAATACACATCCAAGTGAATGAGAATTAATAATTTTCTAAATATTAATACTAACTGGGAAAAAAAACCT
AGTGTGAAGTTTACAGTTAGAAGAAACAGACCCAAAGTTGCCAGAAGGTAATAATAAATGTAGTTTTCACTGTA
AGTAAGTTATTGACGTAAGATGCTTTATTTGTAATATATTTAGATTTTGAAAGTTATTGAGAGATGAATGTATAA
AAGCTAAATTTTCTTTTCTGAAGCAGTGAAACAAAATTGGGGTAACAAGGAAGCTCTGTTGTGGCAAACATGTCT
ATGAGGAATATTAATACTAAGCATACTCCACAGGCTTTAAACTCAAACCATGAACATTTAAATTAAGTTGTTCC
TTATTTTGCCATATACCCATTTTATCTTTTCAATTGTCGTTTTTGCTTGACAGTATGGTGACAGAGTATTTTTATTT
GGAAAGTCCTCAGCAAGATGAATTAGCCAAAAGCAATAATGGTTTCAGATTAAACAATAAAGTGGAATTGATTCAA
TCCCAGGCTCAACTAAGAACAGTCGCTCTCTGGATGTTTTCATTTTAGACGATAGATAAGTTGAGATGTTGTAATA
TTTATGGGGGGTTAAGCCTGTGTGCTAGTTATGGGATGAAGACTTGTAGTACCAGTACCATCAGTGGTCATACTTTT
TTTTAACTTTTTACTAACTAATACAGTTAGACATTTCCACTCTATCGTGATTATATTTTTATGATGGGAAAATA
AAAACACTTCCATGTTTTTATAAATAGTCTCTGCAAAGATTTTCAGATGTTATTGGTATCTCGGTTTGGCAGTATC
TGAAAAATTGAGATTGCTTTGAAATGTTGTGCTACTTTTACTTAAGTAAACCCCCACTGTGCAAGACCCAGGC
CGGCTTCAGCTAATACCAAGGTTTCTGTGTGCATAATAGTTTACAGAGAACTTAAGAGTAAGGACTGCGGATTAA
AAACAAAACTTTTTTAACTTTAAAATTTTTAGTTTTTGTTCAAAGTACCTGGTTTATAAAGTCAAATTCCTTTA
TTAGTTCCTTTCTCGTTTTAAATTGACTGATGTTGCTGATGAAGCTTAAAGTCCCAGGCACGGTTGTGGCGATATA
CTGATAAAATTGGTGCCTAGTGGTGGGAGGAGCTCCAGTGTGAGGACTTTTATTAAGGCCCTTGTTTTCCCAA
ATGCCAATCTAGCCACATTTAGATTTTATTATTCAATAAAACAGATGAAAAATCATCCCATAAATGAATGTTGAG
GTTACCAAAGTACATCACCTGCTGAGGAAGGATAAATCTTCCTGCTTTAAGGGAGCCCTGTCATCTCTCTCTTA
ATGCACGTTTCCCTTGGTATTAGTGGAAGCTGTGTTCAAGATGGGAAGCCTTTCCTGCAGTTCCTAGAAACACCT
GCTTTCTAAGGAGAGCCTTTTCTAGGATTAGCTTATGTGTGTTTTCTCTAGGCGATTTTTTATTTTACAGTTACCAA
TTTAATTTTCAAGTTGACAGATGCTGTGTAAAGTCTCTCATAATGAGAGTAGTCCATTAAATTGTTGAAAGTTGC
ACTGCTTTTTCATCTTTTCAAGTACCTGAAATGAGTGACATCAGGTATTTGGAAGGAGTAAGATCATAACTGTATT
CATTTTCTTCTTGTACAAAGTGATGACTTCTAATGCTTATATCTCAAGGTATTTTTTAAAAAAGCAACGGTCCC
TAATAGAGTAAAAATTGGTTTTGGTCCAAGTTCCCAATAATGTATTTAATGTTTCTGTTGTTTACTGGTGCCCTCC
CGTTGCATCAGGTAGAGATTGCCTGCCTCTTTGTAGGGCAGCCTTGTGGCACCTTATGTCCAACCTTGAGGATAG
TATATGGCTTCTTTGTGCCTCTACTATCTTTTCAAAGCCATTTTATAAAAAATCCTAGGTAGCCTATTTTAATAT
TTAAATATATATATTTGTGAAAGAACTTTTAGAACAGACCTTTTCTTTTACTTTAAATTCCTGTATTTCCATT
TTTAAGAGTAAATTTAATCTCCAGGATTTAGAAGTGTCTTTCCAGAGAAGCATAATGAGAAAGTCAGACTGAGGT
AATAAGACCAGAATTAAGTGATAGAAGAACTGTTGTTTGGTTAAAGGACACAGATTTGAAGGAAAAAATTTTGA
TGTAACAATTTTTTAAATAAAATTTGTTTTTCTGTAATGTCAATTTGCTGCTACAGTAGCTCAATATTTTACA
GGGCTAACATAAAGCTGGCTCCATTTAAAACTGGAGTACTTCTAGTGCCAGCCAGCTAGGCGGAAACTGTACA
CCATGGTCTTCCAGATGGGTGACTGATGGCTTTGGGTAGCTGATGCATGCTTTAATATTTGCCTATAGCCCGGA
GCAAGGAAGTCGGGGCGGGGGGACTTTTTTACCCTGCCAGTTATAGCATTTGATTTCTTTCTGGGCACTGGCATT
TTGTGAAACTCTCAAGGGAAGGTGATGCAGGGGAGAAAATGTGAATTAATTAATAGATGGGTGTTTTTATGTC
TTCTACCCCTTTTCTAGAATTAGTACAACCTTTAACTGTGCCAGTCCCCAGTTCACCAGCTTTGTATCCAGTCGT
CATCTCATTCAAGTATGGCTTTACTTGGTGACACTGGCCATAGCTAAGTTAACTTGGCATGTTTGACTTTTGACA
ATAACAAAAATGGTTTTGGATTTTGTTTTTATTTCCAAAAATGTATACAATATCAGAACTTACATTTTATATAC
TAGTATCTGGCTATTAGTATTTTACAGGAACCATAGTTCTTGGTGACTACATATATATATATATTTTTTGTGACCT
TTTTTGTAACTAAGTGCCGTTTCAACGTTACAATCATTTTTAGGGTTATTGTAATCAATGTGAATATCATGTTT
TTTCAAATCTGTTCTGAGCCTATAGTGTGTTGCTTTGTGAACATGTGTATTGTATATATTCTGTATAGTTATATTG
TACTGAAATTAGCTTGTTGATATAAGGAAAATATGTATTGAGTACCTTTTGTAGCCTGATTGTTTAACTTTT
TTAAAAAAGGTTTAACTTTTTTTAAAAAAAATCTTTAACTGGCCTTTATTACATGGTCACACATAAAGTTG

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FIGURE 1303B

CAGTTAGGAAAGGGATGGGCAGGGAAAACTAGTTTTGAGTGTCTTTAGATAGAAACATGAGACTAAGGTTTGAT
TTTGTTTTCGTTTCTCATTAAAATATCTTATGCTTTATGGAATAAAAAAAAAACAAAGG

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FIGURE 1304

MRLRFDFVFVFSKYLMLYGIKKKQ

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FIGURE 1305

TTCCGGCCTTGTAATCGCCGAGGGCACGTGCATGCCCCCTGGTTAAGAGTTGCAGGTAGCGGTAGCGATGGACAC
TCTGGATCGAGTAGTAAAGCCCAAACGAAAAGAGCCAAGAGATTCCCTTGAGAAGAGAGAACCGAAACTCAATGA
AAATATTAAAAATGCCATGCTGATTAAAGGGGAAATGCAAATGCAACAGTGACAAAAGTACTTAAAGATGTGTA
TGCACTGAAAAAACCATACGGTGTACTATATAAAAAGAAAAATATTACAAGACCTTTTGAGGATCAGACATCACT
GGAATTCTTTTCAAAGAAGTCAGATTGTTCTTTATTTCATGTTTGGCTCCCATAATAAGAAGCGGCCAAATAATCT
AGTAATAGGTCGTATGTATGACTACCATGTGCTGGATATGATTGAATTAGGTATTGAGAATTTTGTCTCTCTAAA
AGACATTAAGAACAGTAAATGTCCTGAGGGAACAAAACCCATGCTGATATTTGCTGGCGATGATTTGATGTAAC
AGAAGATTATAGAAGACTAAAAAGTCTTCTTATTGATTTCTTCAGAGGCCCCACAGTATCAAATATCCGCCTGGC
TGGATTAGAGTATGTTCTGCACTTCACTGCACTGAATGGGAAGATTTACTTTCGAAGCTATAAGTTGCTGTTGAA
GAAATCTGGTTGCAGAACACCACGGATTGAATTGGAAGAGATGGGACCCTCATTGGATCTGGTTCTGAGGAGGAC
ACACCTGGCATCGGATGACCTTTATAAATTATCTATGAAAATGCCAAAAGCTCTCAAGCCAAAAAAAAAAAAAAAAA
A

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FIGURE 1306

MDTLDRVVKPKTKRAKRFLEKREPKNENIKNAMLIKGGNANATVTKVLKDVYALKKPYGVLYKKKNITRPFEDQ
TSLEFFSKKSDCSLFMFGSHNKKRPNNLVIGRMYDYHVLDMIELGIENFVSLKDIKNSKCPEGTKPMLIFAGDDF
DVTEDYRRLKSLIDFFRGPTVSNIRLAGLEYVLHFTALNGKIYFRSYKLLKKSGCRTPRIELEEMGPSLDLVL
RRTHLASDDLYKLSMKMPKALKPKKKKK

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FIGURE 1307A

CAACAACAAAAGGACTTGGACTGGCCGGCCTGGGCGCACGACCCGAGGGCTGGAGTCGGCCCCGCGCCTGCCGTC
TGGGTACCTGAACGAGGTGCAGCGCAGCCGGCCCCACCGCAGCTACCTCAGCAGTCCCGCCCCGCGCGTCCTT
CCCCGCGGAGCCGGCCTCGCTCCCTTCCCCGCGCACCCCGCACGGCCCGGGCCACGTACAATGACTCTTCTTGC
TTTTACCTAAGTTGAATAAGCACCCCTGTGCACTTTAATCTCCTGTCCGTACCATTGGGCCAACTAAAGACAAGG
TTTTGAAATCTCAGCTATAAAAGACATCCAGCCAACTCTCAGTCTTGCCTTAACAATGTTCCAGAGGCTGAATA
AAATGTTTGTGGGTGAAGTCAGTTCTTCTCCAACCAAGAACCAGAATTCAATGAGAAAGAAGATGATGAATGGA
TTCTTGTTGACTTCATAGATACTTGCACTGGTTTCTCAGCAGAAGAAGAAGAAGAGGAGGACATCAGTGAAG
AGTCACCTACTGAGCACCCCTTCAGTCTTTTCTGTTTACCGGCATCTCTTGAGTGCTTGGCTGATACAAGTGATT
CCTGCTTTCTCCAGTTTGAGTCATGTCCAATGGAGGAGAGCTGGTTTATCACCCACCCCATGTTTTACTGCAG
GTGGATTAAACCACTATCAAGGTGGAACAAGTCTATGGAAAACCTTCTCATTGAACATCCCAGCATGTCTGTCT
ATGCTGTGCATAACTCCTGCCCTGGTCTCAGTGAGGCCACCCGTGGGACTGATGAATTACATAGCCCAAGTAGTC
CCAGAGTGGAAGCTCAAAATGAAATGGGGCAGCATATTCAATTGTTATGTTGCAGCTCTTGCTGCTCATACAACCTT
TTCTGGAACAACCCAAGAGCTTTTCGCCCTTCCCAGTGGAATAAAGAACACAGTGAAAGACAGCCTCTTAACAGAA
ATAGCCTTCGTCGCCAAAATCTTACCAGGGATTGCCACCCCTCGGCAAGTCAAGCACAAATGGCTGGGTTGTTTCATC
AGCCCTGCCCGCGTCAGTACAATTACTAATAGTTTCAAGTTTGTGGTTGGTTTCTCTTGGTTTGTGCTTACAT
GTATGGATGTGTGTATATGTACAGTGAAAATGTTGTCTCTTTACAACCAATTGATAACCAATCACATAGTTTTAT
CAGTGTATTTAGACACTATCTTGAATATCAGATTTATATGCTGTGTATCACATAATGCCTTGCTTTAACATTTA
CTTTTTTGTACACTTTTTTCAGATTATTTCTGGAACATATCAATATAATTACAGTGTTTGGGGGTGTCTTTAAA
TATATTAGGTTATACATTAGTCAGCATTTTAAAGACATTTCTTCCCAAGTACGAGAATAGGCATCTTTCATTTTC
ATTTTATTTTGTATTACTTAATCTTTTAAAGCAAGCAAAAATTTATTCTCAGGGTCAGCTGTACACTTTATTGACC
AGTACTTGATAATCTCTCTGTATATGATGAATACATTTTACACACTAACATTAGCATTAAACAGGTGATAGTTGC
CATGGATATAATGGAATTATGGCTGGACTTTCTTTTGAAGAAAACCTTGATGTATTCTGTGTGTATGGTTTTTCC
CCAGATTAGTCATACAGTTCATTTGGAATTCAGGTACATTAAGCTTTAGTGAAGAGTGCATGCAGTAATTCCAAT
GTGACTGCATGACGTGGTACAGACATTACAGGTGTTGTAGACAGAGGCACTTGTCTCGTGCAGAGGGATTAAATT
AGACCTGTGAGATTATATTTGGAATAATTCATGTCTGTAACTAACCCATTAGTGCAGTATTTAATTTGTTACTAT
TCCTTCCCCGCAATTCTGTCCACTCCTCACCTCGCATCAGCTATAAATTTGGAAGTACTTGTCCAGGCACTCAAG
TGACTTCATATTTCTCTCTGCCCATGGGAAAAGAGATAGGCTTTATATTTCCACAGAGTGAAAATCCTCTGTCA
TGGAGCCTGTCTGCCAAGTGGCAAGAGTGTGGGGACTGTCTGGTGATGATGTCTTTCATGGCATCTGAGTGAAG
AGTGACAGGTTGGCTCAACTTTTTTCTTTTTTTTTTTTTTAATTGCCTTGATTGTAAGTATTCTTCCCTGCAGTC
CAAGTGACTTTTCATTTTTTGTTTTAACTTCAGGCAAAATCTTTAACCACTCTGGCCTCTGTTTCCCCACCAAC
GGGGAGCAGTGACATTTACCTCCCTCACAGAGTCACTGTGAGGATTCTATACTGATTTGAAGTGGAGCTGTTTCAG
AACTGAACCTTGTAGGAAATTTCAAGGGCCTTTCTACTGAATCTGGTGATGGGGTGGGGCCGTGGCACTTTCTCT
GCCACAGCTGTTCTTACAGTGTGGTGCTAATGAGGCCAGGGTGCAGGGTTCGATTACACGTAGGCCAGTTAA
CTTAGAGAAAATCTATTTCCCTTACCTCTAGCCAGTCACTTCTTTTTCCGCAGTTGTGATGGGTTTTGCTGAGCC
ATCCACTCTGACTGATTTCTCTGAAGTAAACATATTTACAATCCAAAGCAATTCTACTGACAGAAGTGTTCCT
TCATAATCAAACAGCTTGTTTTTCCATCTCCTCTGCAACCCTAATTAAATGAGTACAGGTCTACAAAATGTTTTT
AAGGAGAAAAGCAGCATATCCTTAAGTGAAGTATTATATTTTCAATAACCCTGTAGTGGCTTGATGCAGGGAAC
CCTGGGGGACTTTCAGCGAAGAGCTGTGCTCTTTTCTGACTAGATTAGAGCGTTTGGAGTGAAGACGTCAAATG
TGTAAGTGAAGTGGAGTTTTACATTGTTCTTCTACTGGCTGTGATGAAGTGCCAGAATGTCTCTTTAGAACAAGA
GTTAGATTCCCCCTTTCTCCTTATTGCCCTTCCGTTTTGACTTCCCCTTTATTTATTTGTTGTCTAATTAGGGG
CCAAGTCTGTAAAGTTTTGTCAAAGTGAGTTAGAAGTTGTTTTCTCTTACTATTTGTTGTTTACCAGAGTTGGGAG
ATAAGATAGTTTCCATGAAGGTGTGTATGTTTTATACGATGTTTGTTATAGGGCCATGCATTGGTAACTTGAAAA
TAGACCAGCTTAATGTCTTCAGGATGTAAACTCTGAATACACGGCGTCTCTTTTTTCATACATTGCATGTAAGTT
GTTAGTACCTCACAAGCTACAGAAGTTCAGCCATGAGATTTTGTGTTGGCAACATGAACAGATTTGTGTATAACTG
CAATGGCCTTTTTTCCAGATTTCTTATTGACTTTTTGTTTGCCTTACCTGGGGCTAGTTTTTTATGCTTTGTA
CCTAGAAAACAAAAAATTACATTCGTTGGGCTTTTTTCAAGGTTGGGATTACCACACCACCTGGAATATCATAC
TGTGGTTTCTGCCTAAAATTGGCACATGTAAGTATTGAAGAAAATGGTTATATAATTACAGTTGAAACTCTTGGTT
ATTAGATGTTAGGCATCTCCTGTATGTAAGACACAAGGCCAACCAACACAGAACGATGTTGACCTGTTAAGTA

FIGURE 1307B

TTCTCTGAAACATGGCCAAAATGCATTTTATGAGCTTTTTTTTTTGCTATTGTAAATATTAGTGGTTTACAATGC
GCTTTAGACATATTTCTTTAAAATGCAAGCAGTGAGAAATAAGACCTCTCTGAATTAGTAGCTCTAACTGTTAA
CATAGAATGTTACTTGGAAAAAGTCTGGAATATGTGGTGACACAAGCAGTGCTTCGTGAATGAGTTTCTTAGCT
TTTATAGTGCGCCATGTTTCTCAAAGTTTGTTTTGTTGACAAAACATTTTATAATATATATCTTATGTTTATTT
TTTTTCTCACTAATTGTGTACTGCACTGTAAGGTGAAAATTAGCCATCCATTATTTATCTTCTGTGGCAATGCA
TTTATATGGTTGATTGGGTGGGGAATTTTTGCAGAAAGATGCAAAGTGATTGGGTTTTCGACTTCCTATCGCAG
GGAGCTTTTAAGAAATATTAATTTCCCTATACATTTTTCCAATCCCCATGCAAAGTTCCTGTTTACATACCTTC
TCTGTTGTATCAGTACTTTGAGTGAGAAGACAGTTTATTTAAACTTGAGCAGGCTGTTGAGCATTGTTTCTGCT
TCTGAAATCTGTATAGTACACTGGTTTGTAATCATTATGTCTTCATTGAAATCCTTGCTACTTCTCTTCCTCCTC
AATGAAATACATTATATATTATCTTTATGTACTCTTAAGAAAAACGAGCAAGGAAGAGTATCTTCATTATTCTCA
TTTTCTCTGAGTTGGAAACAAAACATGAAGGACTCCAAGTAGAAGACAGATATTTACATTTAAATAGATTAGTG
GGAAACCTTTAAGAGTTTCCACATATTAGTTTTTCATTTTTTGAGTCAAGAGACTGCTCCTTGCTACTGGGAGACAC
TAGTAGTATATGTTTGTAAATGTTACTTTAAAATTATCTTTTTATTTTATAAGGCCATAAATACTGGTTAAACTC
TGTTAAAGTGGGCCTTCTATCTTGATGGTTTCACTGCCATCAGCCATGCTGATATATTAGAAATGGCATCCCT
ATCTACTTACTTTAATGCTTAAAATTATACATAAAATGCTTTATTTAGAAAACCTACATGATACAGTGGTGTGAG
CCTTGCCATGTATCAGTTTCACTTGAAATTTGAGACCAATTAAATTTCAACTGTTTAGGGTGGAGAAAGAGGTAC
TGGAAAACATGCAGATGAGGATATCTTTTATGTGCAACAGTATCCTTGCATGGGAGGAGAGTTACTCTTGAAAG
GCAGGCAGCTTAAGTGGACAATGTTTTGTATATAGTTGAGAATTTTACGACACTTTTAAAAATTGTGTAATTGTT
AAATGTCCAGTTTTGCTCTGTTTTGCCTGAAGTTTTAGTATTTGTTTTCTAGGTGGACCTCTGAAAACCAAACCA
GTACCTGGGGAGGTTAGATGTGTGTTTTAGGCTTGAGTGTATGAGTGGTTTTGCTTGTATTTTCTCCAGAGAT
TTTGAACCTTTAATAATTGCGTGTGTGTTTTTTTTTTTTTAAAGTGGCTTTGTTTTTTTTCTCAAGTAAAATTGT
GAACATATTTCTTTATAGGGGCAGGGCATGAGTTAGGGAGACTGAAGAGTATTGTAGACTGTACATGTGCCTTC
TTAATGTGTTTCTCGACACATTTTTTTTTCAGTAACTTGAAAATTCAAAAGGGACATTTGGTTAGGTTACTGTACA
TCAATCTATGCATAAATGGCAGCTTGTTTTCTTGAGCCACGGTCTAAATTTTGTTTTTATAGAAATTTTTTATAC
TGATTGGTTCATAGATGGTCAGTTTTGTACACAGACTGAACAATACAGCACTTTGCCAAAAATGAGTGTAGCATT
GTTTAAACATTGTGTGTTAACACCTGTTCTTTGTAATTGGGTTGTGGTGCATTTTGCACTACCTGGAGTTACAGT
TTTCAATCTGTCAGTAAATAAAGTGTCTTTAACTTC

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FIGURE 1308

MFQRLNKMFEVGVSSSSNQEPEFNEKEDDEWILVDFIDTCTGFSAAAAAEEEDISEESPTHEPSVFSCLPASLEC
LADTSDSCFLQFESCPMEESWFITPPPCFTAGGLTTIKVETSPMENLLIEHPSMSVYAVHNSCPGLSEATRGTDE
LHSPSSPRVEAQNEMGQIHICYVAALAAHTTFLEQPKSFRPSQWIKESERQPLNRNSLRRQNLTRDCHPRQVKH
NGWVVHQPCPRQYNY

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FIGURE 1309A

CAACTTGGGTGAACAGCCAACTAAATGCAGTCCTGAAGAAGATGAGGAGGACGAGGAGGATGTTGATGATGAGGA
CCATGATGAAGGATTCGGCAGTGAGCATGAACTGTCTGAAAATGAGGAGGAGGAAGAAGTGGAAGAGGATTATGA
AGATGACAAGGATGATGATATTAGTGATACTTTCTCTGAACCAGGCTATGAAAATGATTCTGTAGAAGACCTGAA
GGAGGTGACTTCAATATCTTCACGGAAGAGAGGTAAAAGAAGATACTTCTGGGAGTATAGTGAACAACCTTACACC
ATCACAGCAAGAGAGGATGCTGAGACCATCTGAGTGGAACCGAGATACTTTGCCAAGTAATATGTATCAGAAAAA
TGGCTTACATCATGGAAAAATATGCAGTAAAGAAGTCACGGGAACTGATGTAGAAGACCTGACTCCAAATCCTAA
AAAACCTCCTCCAGATAGGCAATGAACTTCGGAACTGAATAAGGTGATTAGTGACCTGACTCCAGTCAGTGAGCT
TCCCTTAACAGCCCCGACCAAGGTCAAGGAAGGAAAAAATAAGCTGGCTTCCAGAGCTTGTCTGGTTAAAGAAGAA
AGCCCAGTATGAAGCTAATAAAGTGAAATTATGGGGCCTCAACACAGAATATGATAATTTATTGTTTGTAAATCAA
CTCCATCAAGCAAGAGATTGTAAACCGGGTACAGAATCCAAGAGATGAGAGAGGACCCAACATGGGGCAGAAGCT
TGAAATCCTCATTAAAGATACTCTCGGTCTACCAGTTGCTGGGCAAACTCAGAATTTGTTAAACCAAGTGTTAGA
GAAGACTGCAGAAGGGAATCCCACTGGAGGCCTTGAGGATTAAGGATACCAACATCAAAGGTGTAATCAGCCTC
ATTGGACCACTGGTCAGAAATGTCTGCGTTTTGTACGTTATCCATTGTAAATTTTCATTCTGTTTTGCATGTCA
GTTAGCATTATGTAAACATTTACAATTAGGTTACATTGTTTTAAGAACTAAGTAGCATAAGTGAAGCATGATCCA
AAATACTTGATTATTGCATTTTCAGAGCATAAACCATGATTAATACTGCTACTGGCATCAGAATTGAAAATCATA
TGTTTAAGTAAATGTTAGGTACAGATTACAAAAATCTGTTAAAGCAAAACATTTTGGAGGAGTGAAATAGTAAAA
TGCCAAGTATTGTGGCAGATTTATGCTCTGAACCACACAAAAAAATTGAGGAAGCATTTTTTTAAACAGTCGGTT
TAAATTGTTTTTAGAATTATTGCTTTTTGTTCTAATTTTCCACAACCATTAATCTCACTTGTATATGGCACACCC
AGCACTTGTGCTGTGGGCCATATTAGATGTTTATTGTCTAGAGCTCAAGATGNNNNNNNNNNNNNNNNNNNNNNNN
NN
TGGGGAACTCTAAACTGGTAATATTTTGTATGATGAAAACCTAATGAGAAAAACAAGATATATAGATGGAA
AAATTATGGGGTTTAAATGTTTTTTGTTCCAACCTCTTTTCAGATTTTTTGAATGTATATAGGACTATGTTGAA
ATGTAGATATATGCCACAGAGTCTGTGATTGTATAAAAAACAAAAACAAAAACAAAAAAGATGGCTCTA
GAAAACCTCATATTTCTGGTACTTGACCGGAAGAAGACAAATACTTGACACATTATTGCGATTGTTTTATTTTTTGT
CCAAAGACAAATGCAACTGATATGGCAAACCTGCCAGTCTAAGTAAAGTTTTGCACAGCTTACATGATACTGTATG
AATGTATGAAAAAAAAGGAGAAAAAAAAGAAAAAAAAGGTCAGGGTTAGGGATCTTACTGAACTGTGAATTTTA
TTTCTGTTTGGGTCCAATTATCTACAGAAGGAGCATCCATACATACAAATATTATTTTGTCTCTCTAGTTTCG
CTTCCATAGTAGATAAGTTGGTGGCCATTTAGATGTCTTTTATTCTGCACCTTATTGTAGGAAATTTTAATATAT
TTCATTTTAGTAAGCTATTGATAAAATAGTTTTTGACTTTGAAAAATTAATGTTTATTTAGCTTATTGTAGTAT
ACTTCCACCAGACAACAAATAGATTATTTTTATTGTATTATGTATATATATATGTAAGAAAGAAAAAAGCT
AAAAATATCTAATCTTTAGTTGCCACTTTTCCAATTGATGTATTATTGTGCATGTAATATTTTCAAAGATCAAC
ACAGGCTAAAAACAAAAACAATTTATAGATTTTATATTTTGTACAGGTATTTTCAAAGCTTCTTCAAACCTT
AACATGTGACTTATTCTCTATAGTTTCTAGAATTGAGAAACATTAACACATTTAGTTTTTAGGTGCTCTTTTTT
GCTCATATAAAACAGCTTCATTAGTCAGTGTTTTAACTGTGTTCAAGCTTTACCTCTTGATGAGAAATTTCTTAT
GTCAAGGCAGCATTATAAACCTTCCCCACAGATTTTCCATCCTGTCTCTCTTACTGTTTTATTCTCAAATCTT
GTGCTTTGAACTCTGAAAACCTGGTGGCTTAAAAACTAAAAAAGAAAAAAGCATATTTAGCAAGGAAAAAATA
CCAAAAATTTCAAGCATAGCTGCTGGAAAAATTATCTATTTCTCCATTACCCACTGTAGGATTTCTTTTTTAATT
ATACTTTGACTATAAAGTGTCAAAGTATAATTTGTTCTTTTCTTTTACTTTGTTACCCCATTTGTAAGCTATAGC
ATATGAAGCTATATATATAGCTTGTGAAGGTTTGATCTAGAACACCCAGTAACAAATGAACAATGTTTGCTTACCT
GCTTCTTTGACATCTTAAAAAAGAAATCCAAGGAGGATTGTAAGGATTGTCTTACCACCTTAGCTGAACTGTGAT
GCACAAGATTTTTCTATGTGTTTGGTGGAAATGTACCTGGTTTTGTACATTCACGCTAAACAGATGATAAGCTCAA
GTCTGATGGTTTTAATAGAATGTAAGTTCATCGTTTTAAAGCTTTTCTTTTGTAGGTTGGAGAAGGCAAAACACAGG
CTTGCAAGTTGGAAGTATATGAAGTCTTGACAGAGTGTGTCTGGTAAATTGAAAAGTGTTTCAAACCTATGGCAGT
TTTGCAATCAGGTGAAAATCACCTCATGATATTCAGCTGATAAGGTTTATAAAATTGCCCTTTCTAGCTGCTCT
GTTAGGAATTCTGGTTTTTGTACTTTTTTCTGTCTGCAAACCAGAATTTGATTTTTTGGTCTTGCATTTCAAA
AAAAAAGAGCTTTGAATCTGTTTAGTAGATTCCATATCTTTGAGTTTCAGTGTTTTATATGTACTACTTAAGTT
AAATAGTTAAAGCTTTTAAATAGTTGAGCTTTTTAATGTTGACACTTTATTTTGTACCTATTTATATATGTATG
TATATCTTAGAAAAGCACTTTGTTAAAAAATAATTGCATTTTATATGATTCCTGCCATTTGCTGCTAAATCTGGG

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FIGURE 1309B

CTGGTCAGAAATGCTGCAGCGATACTTGATCTATATAAAAAACCTGGCAGTAAAATGTAGAGTGAAAGTTAAATCCT
 CTTGCTGTTTTAACTTTATCATAAAGATGACATAGGCAAGCTGTGCAGCTTTACATTTTAACCAGGGGACTCTGT
 GGCATTTAAAACCGTCTAGAAATGGTTGTACTTTAATGCCAGTAATAATCTGCTTCCTCTATTGTCATTAAAAATA
 TATACGTTTAGTGATCACACAAACCAATCTTATAAGGGTAATGTAAAAACCCCAACAATTGTACATGTTCTGTT
 TTTGAAAATGTGGCATGTATTTTGGGTGAAGATCATTAGAGAAGAGTTCTCTAAAGGTTTTCTGTGTTTCATAC
 ATGGTATACAGATAGCTCATAATGAAGTCCAGAATCTTACTTTAAGTGAAGGCATTGTGAATTCACCTCAAGTA
 AACCCATTGTTCCAAAGCAATTATAAACTTTGACTCTAGTACTACTATGATTTAAAAAACCACAAAAAACC
 TTTTTTCCTAGTTTCAGATACAETGGATTCTTTATAGAGTTTGTCTCCATATGAAAGCATGCTGTCCAGTCGCTC
 TTGTTAAGATCTTGTCTGAGTTTTGAATTGGGTGCCACACTTTCCAGTCAATATAATTGCTTGTCTACTGTAC
 CATGTATGATTCTTGTCTTTTCTATATCCTTCATGACAGATTATGATGTGGCTTTATATTGTGCCTTACTTGTA
 CATTTAAACTAAACGTCTTCATTCCCTTCCACTTCTACATCTTTAACTTTGACCTTTTTGGTAAGAGAATCAG
 AACTATTACAAAAGCATCATGAAGGATTTTCAGATGGGTATGTTTTCAAATTCCTCTCTTTATAGTTATTTTATA
 TTTGTATGAAAGACCAGTTTTGGATGGTCTTTGAATATAGGGGGAAAGATTAGCAGTAATTTCACTACATCCCT
 TTTCTCTGACTTTTCATGCATTTCTCATACTCTTCTTCTGATGCTTGACTTTATTTGCTTCCTAGCAATAGTCT
 GCATTTAAAGAAAGGTGTGTTCAATTCATCAGCTTGAAATTGACTATTTTCAATTTTCCAGGATTTTTTAGGAGAA
 GAGTACCCATTTTGTTTTATAAAAACAGATGACAAGTCTCTTTAAAGAAACAGAAGTACAGTACTTTTGAAATA
 CAATGCTGTAGTTTGGATTTCTTTTATATATATATAAATTCATACAATGATCTGATGTTTGCTTCATTA
 ATAAAGCTGTAGTTTATTACCAAAATGTCAAGAATGGATGTGCTTTTCTTTATTCCACACATTTAAAAAATT
 TAGCTGCTAAGATTTAATGTTATAAGAAATGAATTCAAGTTGCCCTTCAGCAAGAATTAACAAAACTTATGTTCC
 CTTTCTTTATATAGTTTCTTAAATTTCTGTTCAAGTATTTTCTAGTTAATTATGTAACAGAATGTTAGCATCTCT
 CCATATCTTGAAACTTGAATTTTGAGAATGCATTGAATTATGCTTTTCAGTGTTAAAGTAAAGGTTTCAATTATC
 CTTCTAGTGAAGTCTGTTGTGGAATACCATTTCCCATGGAAGTGGGCCATTTCCACAACCTTTGCACAGAACTGC
 AGTCTTGTCTTCCCTTGGATCATGACAAATAAGTCTCACACAGTGCCGTAATACTTGTGGATTCTTTTGTAATC
 TTTGTAATCTTAATAAGGGCATTATGAGAAGACGACTCCATGTTTTTTAATACTTCAAACACATTGGGATGTAA
 CAATGAATGTCAACTGTAGGAATGGTGGTTTTCGTTTTAAGGAATAAGCATGTTGGGGAAAGATGATGAAAATGTA
 CTACTGAAAGTTATACACTTCCATAGGCAAATGGGATTATGTGTTGAAGCATAGTCCTCATGCTTAATAAACTGA
 CTGAAATCGTAGAAATTACACCTAGGAAGTGAAGTGGCCAAATTGCCATTTTGTGTTAGAGAGTTTTGGAGGTA
 GTAGTGAGGGGACAGAGCCTTAAACTACTTCCAAACAGTATTTTGAATTGAAGACTTGGTAAGTGTGAAGAA
 CATCAAAGTTGGGTATTTCAATGTGCCAAGTTTGGGTGAAGTGGTTTGCCTCTTTCATAACAATGTAAA
 CACAATGGTGTAGTTAATTAAATTTCTGGGTGGATAGGAGCAGGACTGATTACTATGTCTTGCCTTTCGCCCTTG
 TTTTTTTCAGAACCAATAACAGAAATGTGTATGTGTGTACTGTATCTGCCTTTCCACCACATTTTATGACACT
 GTATTCCACTGCCTGCTTTTTTACCTTCTTTCCCTAGGATTTGTCTACAGCTTAGTATTGTGGTTGACAGCGAT
 ACTAGGGCTGACAGCACAGAAGTCACAAGAGAAGAGTGGAAGGGCAAGAATTCAAAGCATTGTTCATACAATGT
 GGCAACCTCTTTTGCATAGTTGCGTAGGATCCTGTTTGTAAATGCTATCATAAATATTCTGTAGTTTTTTTTTTT
 CTCTCCCAACTGGAGCTATGACACTTTTTATTGGATTGAGTCTTGTCTCTGTCTAGAAAGAACTTTATCTTGT
 GACGCATGAGCTGTTTAAAAATTATCCTATTAAATGTTGGTTAATAGTTGTGCAGTTTTTCATTTGAGATGGA
 GGCAATGCAATTTTGCCTTTGTTTTCTGTACCTTCCAACCCCTGAGCACTTCTAGTCAGATACAGATTCATCA
 GTGTATGCAACATCCTTTGTAATTTAAATAAAAAAGATGAAAAGAAAACGTTCTGAATTGTTTGCTCATGTT
 TTCGCCCTTCTTTCTGTACTTATATCTTGTCTTACCTAGGTAACCATCCGCTCCTCAAGATAACCTATTCCAAG
 AAATTCCAATCACAGAG

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FIGURE 1310

NLGEQPTKCSPEEDEEDEEDVDDHDEGFGSEHELSENEEEEEVEEDYEDDKDDDISDTFSEPGYENDSVEDLK
EVTSISSRKRGRRYFWYSEQLTPSQQERMLRPSEWNRDTLPSNMYQKNGLHHGKYAVKKSRRTDVEDLTPNPK
KLLQIGNELRKLNKVISDLTPVSELPLTARPRSRKEKNKLASRACRLKKKAQYEANKVKLWGLNTEYDNLLFVIN
SIKQEI VNRVQNPRDERGPNMGQKLEILIKDTLGLPVAGQTSEFVNQVLEKTAEGNPTGGLVGLRIPTSKV

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FIGURE 1311

GGCACGAGGCTGGAACCAAACAGTTTGGCATGTGTGTCAGTGATACACAAAATAGTTTTGCAGATTATGGTTGTA
TGTTACAAATTAGAAACGTGCATTTCTTACCGGACGGAAGGTCTGTGGTTGATACAGTTGGAGGAAAGCGGTTTA
GGGTTTTAAAAAGAGGAATGAAAGATGGATATTGCACTGCCGACATTGAATATCTGGAAGATGTTAAGGTTGAGA
ATGAAGATGAGATTAAGAATCTCAGAGAGCTTCATGATTTGGTTTACTCTCAAGCCTGCAGCTGGTTTCAGAATT
TAAGAGACAGATTTGGAAGCCAAATCTTCAGCATTTCGGATCAATGCCCGAGAGGGAGGAAAACCTTCAGGCAG
CCCCTAATGGACCTGCATGGTGTGGTGGCTTCTTGCACTTCTCCCTGTAGACCCACGATACCAGCTGTCGGTTT
TGTCAATGAAGTCTTTGAAAGAACGGTTGACCAAGATACAGCATATACTGACCTATTTTTCTAGAGACCAATCTA
AGTAACTAACTCTTTGGATCTCCCTTTAAAGTGACCCTAATCTGGCTGCATTGATGGCCAGATTGTCTGCTGCCT
TTGCACATCTAGTGCTGGTTTCAGAAATTTAATGAAACTTTTCTTTTCCCTTCGACCTCCTGAATCATGTGGTTC
TGCAATGAATACCTTCAACTAGGATTTAGACCACTAAGAACTTGCACAGAAAAACACGCATTGAATGTGTGTGCG
AACCTCTACATTGTGAAGTTGCACTATGTACCATACTCTAAAAATGAAATAAGAACTCTTTATGTCTGTGAGAGAG
TGTGTGTGTGTGTGTGCGTGTGCTGTGTGCTTGTGGGGGTTGGGTAGTGTGTGTGTATTTTTCTCTGGCTTTAAAT
CTTAAAACAAACAAACAAAAAGCCATAGAGAGCAGAACTTGCCGAGGGTCATTTATTGCCCAAGTTTACAAGAG
TAGCGATACAAGTTTTTGCAAATTGAATTTGCCTCAGATATATCTGTCTAATGCTTATATTGACACAAGTATGT
AAAATATCGTGTTGAGGATCATTCTTTGTTGGAATACTGCTCTTGCTGAACTGTCTTGACCATTGACTATGACA
CAGTTTCTTATTTATGTAAATACTTGCATCACAGTGGCCGACAGGCATTGGATGCAGAACCTAGAGCCAGTTTTTC
AGGAACAATTGTAAACCTGACATGGTACTGTGCATCTATTATATAAAACACTCAAACTGTGAAAATATGGTTTAC
ATTTAATTGTACATAAAGGTAAAGGGGAGAACTCAATTCAGTACCAGTTAGTTTGTACATTTTAGGGGGCTTTTCA
CATTAACTGCCCATTGTGTAAATTTATAGTTTGACATGATGTGTTTGTTTTAAAAAAAATGCATAGTATAAACC
CATTAAAGGATCTGGGAAAAGAGAAGAAGTTTAATATAGAACTAAGCTTTTAAAGTTTGTTTTGTTTTAAATCT
GGTCTCGGTGCAAATGTTAGTTATGCCTTATTATATCACAGTTAGATCACCATGCTGCAACATGGTTTATATTC
ATGCTGCCCTAGAACTTTTGTAAATTTTGTGCAAATTTGTGACTGTCCTTATTAACCTTTCTTTTATGTAAGT
AATTTGTAAAAGTTTCTTAAAATTTTGCTTTTGCTTATTTAATTTTGAATAAAAGCTAAATTCCTAAAAAAA
AAAAAAA

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FIGURE 1312A

CAGGGCTGGCTTTTTTTTTTTAATAAGATAGCTGGTGCCCAAGATTGTTTTCCACCTTAAGGATAAAACCTGTT
AAGAAAGCCTGAACAATTACAAAAAGGAAGAAAGGAGACTTGGCCAACTGGTGTGAGGAGTCTTAACAAGGTC
ATAGTTTGCCAGCCCCTGCCCTAAACAAATAATTCTTGAATGCCTACTGTGGTGTGTAAGATATGAGTAAATACC
AGGGATACACAGAGAACAAAAGAGAAAACTGCTATTCTTGTGAACTTGGAAGTTGGAGGAGACTTGGAAGATG
CAGAACTGGATGACTACTCATTCTCATGCTATAGCCAGTTGGAAGTGAATGGATCGCAGCACTCACTGACCTGTG
CTTTTGAGGACCCAGATGTCAACACCACCAATCTGGAATTTGAAATATGTGGGGCCCTCGTGGAGGTAAAGTGCC
TGAATTTGAGGAACTACAAGAGATATATTTTCATCGAGACAAAGAAATTTCTACTGATTGGAAAGAGCAATATAT
GTGTGAAGGTTGGAGAAAAGAGTCTAACCTGCAAAAAATAGACCTAACCACTATAGTTAAACCTGAGGCTCCTT
TTGACCTGAGTGTCTATCTATCGGGAAGGAGCCAATGACTTTGTGGTGACATTTAATACATCACACTTGCAAAAGA
AGTATGTAAAAGTTTTAATGACGATGTAGCTTACCGCCAGGAAAAGGATGAAAACAAATGGACGCATGTGAATT
TATCCAGCACAAAGCTGACACTCCTGCAGAGAAAGCTCCAACCGGCAGCAATGTATGAGATTAAAGTTCGATCCA
TCCCTGATCACTATTTTTAAAGGCTTCTGGAGTGAATGGAGTCCAAGTTATTACTTCAGAACTCCAGAGATCAATA
ATAGCTCAGGGGAGATGGATCCTATCTTACTAACCATCAGCATTTTGAGTTTTTCTCTGTGCTCTGTTGGTCA
TCTTGCCCTGTGTGTTATGGAAAAAAGGATTAAGCCTATCGTATGGCCAGTCTCCCCGATCATAAGAAGACTC
TGGAACATCTTTGTAAGAAACCAAGAAAAATTTAAATGTGAGTTTCAATCCTGAAAGTTTCTGGACTGCCAGA
TTCATAGGGTGGATGACATTCAAGCTAGAGATGAAGTGAAGGTTTTCTGCAAGATACGTTTCTCAGCAACTAG
AAGAATCTGAGAAGCAGAGGCTTGGAGGGGATGTGCAGAGCCCCAACTGCCCATCTGAGGATGTAGTCATCACTC
CAGAAAGCTTTGGAAGAGATTCTCCCTCACATGCCTGGCTGGGAATGTCAGTGCATGTGACGCCCCATTCTCT
CCTCTTCCAGGTCCCTAGACTGCAGGGAGAGTGGCAAGAATGGGCCTCATGTGTACCAGGACCTCCTGCTTAGCC
TTGGGACTACAAACAGCAGCTGCCCCCTCCATTTTCTCTCAATCTGGAATCCTGACATTGAACCCAGTTGCTC
AGGGTCAGCCCATTCTTACTTCCCTGGGATCAAATCAAGAAGAAGCATATGTCACCATGTCCAGCTTCTACCAAA
ACCAGTGAAGTGTAAGAAACCCAGACTGAACTTACCGTGAGCGACAAAGATGATTTAAAGGGAAGTCTAGAGTT
CCTAGTCTCCCTCACAGCACAGAGAAGACAAAATTAGCAAAACCCCACTACACAGTCTGCAAGATTCTGAAACAT
TGCTTTGACCACTCTTCTGAGTTTCAAGTGGCACTCAACATGAGTCAAGAGCATCCTGCTTCTACCATGTGGATTT
GGTCACAAGGTTTAAAGGTGACCCAATGATTTCAGCTATTTAAAAAAAAGAGGAAAGAATGAAAGAGTAAAGGAA
ATGATTGAGGAGTGAGGAAGGCAGGAAGAGAGCATGAGAGGAAAGACAGACAGGAAAATAAAAAATGATAGTTGC
CATTATTAGGATTTAATATATATCCAGTGCTTTGCAAGTGCTCTGCGCACCTTGCTCTACTCCATCCTGACAATA
ATCCTGGGAGGTGTGTGCAATTACTACGACTACTCTCTTTTTTATAGATCATTAAATTCAGAACTAAGGAGTTAA
GTAAGTTGTCCAAGTTGTTTACACAGTGAAGGGAGGGGCCAAGATATGATGGCTGGGAGTCTAATTGCAGTTCCC
TGAGCCATGTGCCCTTCTCTTCACTGAGGACTGCCCCATTCTTGAGTGCCAAACGTCAGTAAACAGGGTGTGC
CTAGATAATTTATGATCCAACTGAGTCAGTTTGGAAAGTGAAAGGGAACTTACATATAATCCCTCCGGGACAA
TGAGCAAAAAGTAGGACTGTCCCCAGACAAATGTGAACATACATATCACTTAAATTTAAATGGCTATGAGAA
AGAAAGAGGGGGAGAAACAGTCTTGCGGGTGTGAAGTCCCATGACCAGCCATGTCAAAGAAGGTAAAGAAGTCA
AGAAAAAGCCATGAAGCCCATTGATTTTCTGAAAATAGGCTCAAGAGGGAATAAATTAGAACTCACA
ATTTCTCTGTTTGTACCAAGACAGTGATTCTCTTGCTGCTACCACCCAAGTGCATCCGTCCATGATCTCAGAG
GAACTGTCGCTGACCCTGGACATGGGTACGTTTGACGAGTGAGAGGAGGCATGACCCCTCCCATGTGTATAGAC
ACTACCCCAACCTAAATTCATCCCTAAATTTGTCCTCAAGTTCTCCAGCAATAGAGGCTGCCACAACTTCAGGGAG
AAAGAGTTACAAGTACATGCAATGAGTGAAGTGAAGTGTGGCTACATTCTTGAAGATATACGGAAGAGACGTATTA
TTAATGCTTGACATATATCATCTTGCCCTTCTTGGTCTAGACTGACTTCTAATGACTAACTCAAAGTCAAGGCAA
CTGAGTAATGTCAGCTCAGCAAGTGCAGCAAAACCATCTCCACAGGCCTCCAAACCTGGCTGTTTACAGAAC
CACAAAGGGCAGATGCTGCACAGAAAAGTGAAGAGGGGTCATAGGTTTATGTTTGTGTTGAGATTTGTTGCTA
CTGTTTTTCTGTTTTGAATTTTCTTCTTGTGTTTGTGTTTGTGTTTGTGTTTGTGTTTGTGTTTGTGTTTGTGTT
TAGTTTTTCTGTTTGTGTTTGTGTTTGTGTTTGTGTTTGTGTTTGTGTTTGTGTTTGTGTTTGTGTTTGTGTTTGTGTT
GGCTTAAAGGACTGGTAAAATCAGACCATCTTATTCTTCAGGTGAATGTTTTACTTTCCAAAGTGCTCTCCTCTG
CACCAGCAGTAATAAATACAATGCCATAATCCCTTAGGTTTGCCTAGTGCTTTTGCAATTTTCAAAGCACTTCCA
TAAGCATTCCTTCCACCTCCTTGATAGGCATTTATGGAAAGCCTGCTACATGTCAATCATACTGTTAGGCACAGG
GGACCTAAAGACACATAAAAGGATGGCATTCTGCCTCATAAATTGCAAAACCTAATGAAAGTGACTGCTTGGTAA
ACAAATTATTATTATATTATAAAATGCTATAAAAGAGCCATATTGAAAGTGCCCTGTTGGAGACAGGGCAAATGC

FIGURE 1312B

CACAAAAATGATGTAAATTTACATGGAGGAAAAGTAGAATCTGCCTGGTTTGTAGGCAGCAGAAGACATTTTTCA
TCAGTGGGCAGGTGTTCTTTACCTTTTGTAGAAATGGGAGTCAAGTCTCAAATAGGAGGCTCCACAAAATCTCAT
GCCAGGTCTCTGATACCTTATTCACAGAAGTTCTTTGAAGTATTTATTGTTATTTTCTTTGACTTATGGGAAAAC
TGGGACACAGGAAGACAGGTAAATTACCCAACCTCACACGTTAAGTCAGAACTGGGAGCCATAATTTTGTATCCC
TGGTATAAATAGACAATCTCTTGAAGAAATGAAGAGATGACCATAGAAAAACATCGAGATATCTCCAGCTCTAAA
ATCCTTTGTTTCAATGTTGTTTGGCATATGTTATCTTTGGAATTTAGTGTCTGAGCCTCTGTCTGTTACTGTAGT
ATTTAAATGCATGTATTATAATCATATAATCATAACTGCTGTTAATTCTTGATTATATACCTAGGGACAATGTG
TAATGTAAGATTACTAATTGGTTCTGCCCAATCTCCTTTTCAGATTTTATTAGGAAAAAAAAATAAACCTCCTGAT
CGGAGACAATGTATTAATCAGAAGTGTAAGTGGCAGTTCTATATAGCATGAAATGAAAAGACAGCTAATTTGGT
CCAACAAACATGACTGGGTCTAGGGCACCCAGGCTGATTTCAGCTGATTTCTACCAGCCTTTGCCTCTTCCTTCA
ATGTGGTTTCCATGGGAATTTGCTTCAGAAAAGCCAAGTATGGGCTGTTTCAGAGGTGCACACCTGCATTTTCTTA
GCTCTTCTAGAGGGGCTAAGAGACTTGGTACGGGCCAGGAAGAATATGTGGCAGAGCTCCTGGAAATGATGCAGA
TTAGGTGGCATTTTTGTCTAGCTCTGTGGTTTATTGTTGGGACTATTCTTTAAATATCCATTGTTCACTACAGTG
AAGATCTCTGATTTAACCGTGTACTATCCACATGCATTACAAACATTTTCGAGAGCTGCTTAGTATATAAGCGTA
CAATGTATGTAATAACCATCTCATATTTAATTAAATGGTATAGAAGAAC

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FIGURE 1313

MHDVAYRQEKDENKWTHVNLSTKLTLQRLQPAAMYEEKVRSIPDHYFKGFWSEWSPSYFRTPEINNSSGEM
DPILLTISILSFFSVALLVILACVLWKKRIKPIVWPSLPDHKKTLEHLCKKPRKNLNVSFNPESFLDCQIHRVDD
IQARDEVEGFLQDTFPQQLESEKQRLGGDVQSPNCPSEDVVITPESFGRDSSLTCLAGNVSACDAPILSSRSI
DCRESGKNGPHVYQDLLSLGTTNSTLPPFSLQSGILTLPVPAQGPILTSLSGNQEEAYVTMSSFYQNQ

CGGGCGAGAAGGGCAGACGGGACATGCAGCCTCTTCCGCCTGAGCCCCGGAAGTGATGTGGCTGCGGCATCGCG
CCTCGCTATGTCTGCCATTTTCAATTTTCAGAGTCTATTGACTGTAATCTTGCTGCTTATATGTACCTGTGCTTA
TATTCGATCCTTGGCACCCAGCCTCCTGGACAGAAATAAAACTGGATTGTTGGGTATATTTTGGAAAGTGCCAG
AATTGGTGAACGGAAGAGTCCTTATGTTGCAGTATGCTGTATAGTAATGGCCTTCAGCATCCTCTTCATACAGTA
GCTGGGGAAAATGCCAGAATGTAGTTGCCATCAGATTTGATTGTGAACAAGGACTGACTGCAGAAAATAATGGAA
AGGATGTTTAACTCTTTTATCTCCGAACATTGAATGAGATAAAATTCCAGATGCTGTTCTCTATTTTAAATGTTAT
TGGACCAATGTTCTGTATAAAACAATTAAGATGTAACCATTTAATAGTCTGTAACAATCAACCTCAGTACTGTCAC
TACAATATTACATTCTGCAAAATGTTATTCTGTTGTATCAGATACAAAATTTTAGTGAGGTATCTCTAAGGCACAT
AGTAGAAAACAAAATTGGTTAATTACTCAAGTTCCTTTCACTGTGATTTGGAAATGATTTAATCTTTATAGAATG
AGAACCTTTTTTGGACTAGCTTTTTTATTAAATGGCTCAATTTGTGTTGATAAGGATTGCATTAATATTTAATA
GTGCTTGCTTTTCTCTGGGCACACCATTTTGATCATTAACCAGAGTACCTCTACTCTTAGCAAACCTCTAGTTTA
TGACAAGTATTTAAATATTTAAACAAGCTTATGCAGTTCCTAAGGACGAAGGTAAATGAGATGTAACCTTAAAA
ATAGTATTGGGAAAATGTTGATAGTTAACATTAGTGGATTTAGACTAGCCAAATGACATAGTAGGCTCTGAAACA
TCTTGTCAGTATATGTATTTTGTGCATGAATTTTGTCTGGAAAGCTGTCTTTCTCTGAAAAACACAACGTTCTT
AGAATGAAAAGAACAATTATAAAATAAAAAAAAAAATTTAAAAAAAACCTGGGCGGGGG

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FIGURE 1316

GGAATTCGGCACGAGCCCGATTCCGCGCCCGCCATGGCCGACAAAATGGACATGTCCTCTGGACGACATCATTAAA
CTGAACCGGAGCCAGCGAGGCGGCCGGGGCGGGGGCCGCGCCGGGCGGCTCCAGGGCCGGCCGCGCGGTGGG
GCGCAGGCCGCGCGCGAGTGAATCGAGGCGGCGGGCCCATCCGGAACCGGCCGCCATCGCCCGCGGCGCGGCC
GGCGGAGGCGGCAGGAACCGACCGGCGCCCTACAGCAGGCCAAAACAACCTCCCGACAAGTGGCAGCACGATCTT
TTCGACAGTGGCTTCGGCGGTGGTGCCGGCGTGGAGACAGGTGGGAACTGCTGGTGTCCAATCTGGATTTTGGG
GTCTCAGACGCCGATATTTCAGGAACCTTTTGCTGAATTTGGAACGCTGAAGAAGGCGGCTGTGCACTATGATCGC
TCGTGTCGCAGCTTAGGAACAGCAAACGTGCACTTTGAGCGGAAGGCAGATGCCCTGAAGGCCATGAAGCAGTAC
AACGGCTTCCCTCTGGATGGCCGCCCCATGAACATTTCAGCTTGTCACGTCACAGATTGACGCACAGCGGAGGCCT
GCACAGAGCGTAAACAGAGGTGGCATGACTAGAAACCGTGGCGCTGGAGGTTTTGGTGGTGGTGGAGGCACCCGG
AGAGGCACCCGCGGAGGCGCCCGTGGAAGAGGCAGAGGTGCCGGCAGGAATTCAAAGCAGCAGCTTTCGGCAGAG
GAGCTGGATGCCCAGCTGGACGCCTATAATGCGAGAATGGACACCAGTTAAACAGACCAGCAAATCCGCGTGC GG
AACAGGACCCAGGCGTCTCCTCTTGCTCCCTGGTTGGGGGGCGGTGGCTGGGGCTGTGCGCCCAATGATGGATTT
GTTTCTTTTATGTTTTAAATAGGATTTAAAACTCATGTAAAGGTTTTTTTTTTTTTTTTTTTTTTTTTAAAT
TCTGAAACAGACCTGTTTGTACCGAGTTATTTTTGGGATAAATTTACTGGTTGCTGTTGTGGAGAAGGTGGCG
TTTCCACCTTTTCCATAATAAAATAGAAATGTGTGTAA

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FIGURE 1317

MADKMDMSLDDI I KLNRSQRGGRGGGRGRAGSRAGRRGGAQAAARVNRGGGP I RNRPAIARGAAGGGGRNRPAPY
SRPKQLPDKWQHDLFD SGF GGGAGVETGGKLLVSNLDFGVSDADIQELFAEFGTLKKA AVHYDRSGRSLGTANVH
FERKADALKAMKQYNGFPLDGRPMNIQLVTSQIDAQRRPAQSVNRGGMTRNRGAGGFGGGGGTTRRGTRGGARGRG
RGAGRNSKQQLSAEELDAQLDAYNARMDTS

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FIGURE 1318

GGAATTCGGCACGAGCCCGATTCCGCGCCCGCCATGCCGACAAAATGGACATGTCTCTGGACGACATCATTAAA
 CTGAACCGGAGCCAGCGAGGCGGCCGGGGCGGGGCCGGCCGGCTCCAGGGCCGGCCGCCGCGGTGGG
 GCGCAGGCCCGCCGCGGAGTGAATCGAGGCGGCGGGCCCATCCGGAACCGGCCGCCATCGCCCGCGGCGCGGCC
 GGCGGAGGCGGCAGGAACCGACCGGCGCCCTACAGCAGGCCAAAACAACCTCCCGACAAGTGGCAGCACGATCTT
 TTCGACAGTGGCTTCGGCGGTGGTGCCGGCGTGGAGACAGGTGGGAACTGCTGGTGTCCAATCTGGATTTTGA
 GTCTCAGACGCCGATATTCAGGAACCTTTTGCTGAATTTGGAACGCTGAAGAAGGCGGCTGTGCACTATGATCGC
 TCTGGTCGCAGCTTAGGAACAGCAAACGTGCACTTTGAGCGGAAGGCAGATGCCCTGAAGGCCATGAAGCAGTAC
 AACGGCTTCCCTCTGGATGGCCGCCCCATGAACATTAGCTTGTACGTCACAGATTGACGCACAGCGGAGGCCT
 GCACAGAGCGTAAACAGAGGTGGCATGACTAGAAACCGTGGCGCTGGAGGTTTTGGTGGTGGTGGAGGCACCCGG
 AGAGGCACCCGCGGAGGCGCCCGTGAAGAGGCAGAGGTGCCGGCAGGAATTCAAAGCAGCAGCTTTCGGCAGAG
 GAGCTGGATGCCCAGCTGGACGCCTATAATGCGAGAATGGACACCAGTTAAACAGACCAGCAAATCCGCGTGCGG
 AACAGGACCCAGGCGTCTCCTCTTGCTCCCTGGTTGGGGGGCGGTGGCTGGGGCTGTGCGCCCAATGATGGATTT
 GTTTCTTTTATGTTTTAAAATAGGATTTAAAAACTCATGTAAAGGTTTTTTTTTTTTTCTTTTTTTTTTTTAAAT
 TCTGAAACAGACCTGTTTTGTACCGAGTTATTTTTGGGATAAATTTTACTGGTTGCTGTTGTGGAGAAGGTGGCG
 TTTCCACCTTTTCCATAATAAAATAGAAATGTGTGTAA

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FIGURE 1319

MADKMDMSLDDIIKLNRSQRGGRGGGRGRAGSRAGRRGGAQAAARVNRGGGPIRNRPAIARGAAGGGGRNRPAPY
SRPKQLPDKWQHDLFDSGFGGGAGVETGGKLLVSNLDFGVSDADIQELFAEFGTLKKAHVHYDRSGRSLGTANVH
FERKADALKAMKQYNGFPLDGRPMNIQLVTSQIDAQRRPAQSVNRGGMTRNRGAGGFGGGGGTTRGTRGGARGRG
RGAGRNSKQQLSAEELDAQLDAYNARMDTS

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FIGURE 1320A

[illegible]

FIGURE 1320B

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FIGURE 1320B

CCTCAGCATCCCCTCGACGGCCTGGAGGGACCACAGCCCCGGCCAGAGGCGCAGGGCAGAGGACATCCCTTCCGG
AGGTTCTGCGGCGGAGGGCTGCCGACCTCTCCCCACGCGCCAGGTGAGGCGCGTAAAGGAAGGGGAGCTTGTCTC
ACTCACAGAGGGCCCGGCTCGCGGGAGGCGCCTGCGGGGTGGGCGCGAACTGAGATCCAAATTTCTGCCCTTTCC
ACTACGTTCCATACCCCCGCCCTAACACAGTCTCTCAATCCAGCTCCCTTCTAACTCCCCGAAACATCCAGAGG
GGTGGGCGGGAGGAGAAGGGAAGGCCCTCAGGCCACAGACGGTGGGAGTGGAAAGGTCTGTTCGGAAGTCACTCTT
GGGGCCCAACCCAACTTTCAAAAAGAGGCAGCTGCAACCCTCCTAGCCGGTCTCCGTACTCAAGGACTCTCCCGA
GCCCAGAGGCGAAGGCCGAGCCCTGCGTCCAGCAGCTGAGGGGGGGCGGCCCCCTGACCCCTGGCCCCGCGGCC
CCGCACAGACCCAGGGCAGCCCCGGCTCCCGCGGCCCCGGCCCTCCCCAGATCCCGGAAGGAGGCCGCCGCCAGC
CGCGCCAGCGCCAGTTGTTACGTTGGTCCCGTCTCCCGTCTCTCCACGATCCAGTGGGGGTTCCTTGCCCCA
CTTGCCATGGCGGCGTGGACTGGGCGGAAAACAAGGAAAGGCCGCGGCCTAAGGCTCCGAAGCCAGCGTTTC
CGGCCGCCGAGCCCCGGGCGGCGCGTTTCGACGTCCCAGAACTGCCAGAAGC

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MKTETREVLTPSTSDNETRDSSIIDPGTEQDLSPENSSVKEYRMEVPSSFSEDMSNIRSQHAEEQSNNGRYDD
CKEFKDLHCSKDSLAEEESEFPSTSI SAVLSDLADLRSCDGQALPSQDPEVALSLSCGHSRGLFSHMQQHDILD
TLCRTIESTIHVVTRISGKGNQAAS

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FIGURE 1322A

TGACAAAATCTTTTATTTATTTAAATGTTAGTAATACGTTTATTGATGAGACTAGGAGCTTCTCTGCAGCATCTT
CATAATACATTGGTTTTAGTTCCACACTATTCCACATCTTATCTGGGAAGATTAGAAATACAGATGTAATATG
GAAGCTTCAACAGCATGGGGGTGGTGATAGTGTCTATTTGCCCTTGGTAAATATTAAAGCGTATTTCTTAACC
CAAAGAGTGATTGGTTATATGAATATATTTGAAAAAGTTAAAGCAAATTTGCAAACCTTTACAAAATCATGTATC
AATTTTATGCTATCCAGTTTTTACGTACCCATGTGTCAACATTTTCATATATCCAGTTCTTTGGGTGCTGGTTTAC
TTTTTTTCATTTATTCAAATTCAGAAAAATACGGACGGATCTAATGTTAAATTAACCAGAAACCCTGGAACATTC
ATATCTTGAGAGGGAATTTGCTACTCTTTTACTTTTGGGATTTCAATTATAAAATAGGCTCATTTTATACATATGT
CCTGTGGTCTGTCTTCCAGAGTGTGCTGTAATCATAAGTCTCTAGCAAAGAGTGGAGGGTGGAGGGTGTGTAGAA
CTCCACTCAGCCTCATGGATACATCTACAAGTCTCTCAACCCATCCTGTTACAGTTCTCCATGAGAGTCACCTCA
CACTTGAAAAAGAAGGAGGTTAAAGCAGAGTATTGTTGGCAGCCAGCTATGCCATCCTCTTGTAATAACTTTC
CAACACACCCATTTCTTGCCTTAAGGTGCAGGTTCTACTTCTACAAAATTTCAAATGATTGCAGGTCAAAAAAC
CTTTGGAGTTACTCACAAATAATAATAAAATTTCAAATAACTAGGGTCTACTTGTCCATCAAGATGACATTACCA
GTGGAACCCACCTGTTAATTTTAAAGTAGCTTCAGAACCCAACAAAATTATGTAAGCCTGGTTAAATGTCCCTTT
TTTCTTCTGCTCTAATAAAATCAGGATCTTCGGCCTTGATACTAAATATGTGTATATTTAGTTATGATGGTAC
TTGTAGATGCTCACATTTCCAGTTCCAAACTCGCCCGTACTTTTTATGTGCTTCAAATATTGGACACATTTCTG
TTAATATATGATTTCTGTATCCACAAACCGCTGTTTGCTTATGCTGAGTCAATTTAGAAGTTAATTTCCAATCTA
GTCTCAACTGCAATGCATTTAAAATAGGTAAAACAAGTAAATGAGTTTGGGACATTTTGAGATTAATGTTACTGC
CCACTTGACTGTCAATTTCAAATGGCTCCTAATGCAACCAAAATTATAACCAATGTAGCATGTGTAGGAAAGGTA
TTTTTAATTATTTAAAATCATTGTGTATATTACAGCAGTATGAGGAATGCCTGGCTAAAGAGGATTTTTTAAAG
ATGAAGAATGGTTTTGCTTGTATTATATAGGCTTACTGAGTTTGTGAGCAGCATAAAAAACAATCATTCTTAATT
CTTCATTGTGGAACCTGAAATATTTCTGTAATGCATTTTTTAAAAGGAGACTCCTAGACACAGCTGTAATAGTGGG
AATAGAAATGTAGAGCTTTTCTCATAACACAAAACCAGAAAAATAATTTTACGACTTTGACTTACTCTATGTAAT
AAGGAAAAAAATTTGTTTCCACAAAGTTGAAGTATGTAGTAATATTTGGTAACATATGGCATGGCCACTTTATATC
ACAGAAATGTGTCAAGTTGCAAAGCATACTTGGGCCATAGCAGACACTAAGAATTAAAACTCTTAAATCAGTGA
AACAAAACTAATGGGCAGCATTCTCTCTGTTTGAATGGGATCAGTATACAATTAATACAATTTAATTTTACAC
ATTCCCTAAGACACCATTTTTAAGTTACAGTCACATGAGTGTTTGTATAAATTTAAGTCAATGCTTTTAGCCTAG
GCAAAGCTAAATACAAGTTTTTGGGGTTTTCTTTTTTTCAGCTTTATTATTGAAGTATTACAAACTTAACATCAG
ATACCAATGTGTAAAAAGTACTATTGGGTCTTAAGGGCTCTATCAGGGAGTTGAAATTTTCATACGCTTTACCAG
GTTACTTGTAATAAATGAACAGCTGTAAGACATTTCAAACCATTTGCAGACACATTGTTAAAATGCAGCCATTTG
ATAATGAAAGCAGAAACCTTAAGTTTTACCTAATTATTGCACTAAATGTAAATGATAACATAAAATTAAGTGTGC
ATTTTAAACAGATTCTATTTCCCACTTACTGCTTAGCATAGAAAAAGAGCTATGGTTAGAGGAGTGACCAGCAAG
ATTTATTTTCAATGGAAGGGGTGAGAAAGTGAAGCACCTTACTGTTAGAGCATGTTGCATCTATTTAGTGCT
ACTGAACAATTCAGTAGTTATTTCTGAACCTTTGCTGCAAAGTGCTCTTTAGTTAAAGCACATTAAGAAGGGTCAC
TGCTTAATTGCTTTGTAAAATGAAGCAATGGTATTTTTATCCGATATAGTGTAATTTAAAGTTTTCTTACAAA
GTGAGTTTATATTGTTGCCTAACTATGTTATGTAAGCAAAGTTTTTGGAAAGGCGGGAGGGAGTCTAGATTCCG
CGAGAGTGTCGCTTTGTGTGTGTGAATGTATGAAAAGTTTCCCAATTGGGTTATTCTTAAGATGTGTTATTGTA
AAGTTTTCTACGTTTTTGGCCACAGTAAATGTACAACCTTCGCAATTGTAGGATTTAATTGATTGAATCCAAATTT
ATACTGTCTCTTCCCTTCTGCAGAGACATTATGCCACTGTAAGGTGCATGTACAGAAAATACCTCTGAGGTTGAC
TTGTTAAATAACTGATGAATGTTATTTACACTGAATCTCAAAGCAGTCATTTGTTTTGCGGGTTAGGGGAAAGT
TTTGTTTTTTGTGGTGTGTTTTTGTGTTTTTAAATTAGGCACACTAAGAGTGGCTAAATTTGGGGGAATTGGTGG
ATAGGAAAGACCTTGAAAGTGATGTGTAGATGAAAACACAAGGTATGGATGTTGGTTACAGAGTTCAGTTTTAA
CAAGGGAAATTTGGGGATTTTTTTTTTTTTTACTTGCATGTTCTATGGGTAGCTATCAAAGGGTGAACAAATTA
TCCAGCTTTTCCCAATACTAATTATATTGGTTTTTAAAAAGTCTGCATAATCACTAGGTGGCATTTCCTTCATT
TGTGAACCAAGAGGGGTAAATGATGCTACCCATACAGTGACTTCTGAGTTCTTTAACTTTGACAGAATCTCCATT
GTTTCATTGAATTTCTCATTGTATTATATGTCTTCCAAGTGTGCAAACCTATAATATGTAGTTAATGAAAAATGG
AAGGCTGCAGATTATTTTGCATGAATAATTAATTGCCATTAGGGCTAAGGAGACTGACATGATTTTTATCGGTT
CTGGGTAAATGAAAATTTTAAATGAAAACCTCATTACCATTACTAGCTTTGTGCAATATTATAAAAGGTAGAAAG
CAAAACACTAGCACATTGTGCTTTGCTTGGCTTGTAAAGGATGGCTTTAGTACCATTACATTAAATGGACAGTGTG

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FIGURE 1322B

CACAGTGTATTGTAAATGCCAACTCTTGCAAATTTACAATACTTAAATATGTTCAATTAACATCCTAAAGTATTA
AAAGTACAGAGGAAAACTAAGCAAGCATTATAGCAATACCATGAAATCTCCAGTAATCGTTTTGACTGTTGCC
TTTTGCTCTTTAGTGCAGCTTTCTGCATTGTAATTGTATTGCTTTGTATTTTCATGTTTTTACACTCATGACTT
CAGAGTTAAGTACTTGTACACCAAGTATTGCAATCACCTTTCTCTTGTGTACATGCAATGTAACAACCTACAGT
TTTGGTGCTTTTAACAATATTCCTCTTTTTCTTTAATAAAGGATATTTATTTGAATTAACCTGATTTTGTTTGTT
TAAAATATCAGTGGTACATATTTCACTTCATTTCAAATAGGAGGACCATAGCAAATTGTATATCTGTTATGACA
AAAGTTNTAACATGGAGAACAGGATCCAGAGACCATCCATGCCTGTATTTCTGCCTCTTCCTGAGCGCTGTTTGT
TGTGACATATTTTGATGGCAACTTTCTTTGTGCTATTAATGAACTTTCTCATTGTTTATAAATATTCACAAAGTT
TGGAAGTGCTGACTTCCAAATTGGAAAATTTTAAATGGGGGTGGGGAGAGGCAGAAAAATATTTATAAAGTTAC
ACACTCA

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FIGURE 1323

TKSFIYLNVSNTFIDETRSFSAASS

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FIGURE 1324A

GCCATGTCCTGCAATTTATGTACTATGGAACATAGAGCTGAGTATGAATACCGTTCATGAGATTCTTCAGGCTG
CCATGTATGTTCAACTTATAGAAGTGGTGAAGTTCTGCTGCTCTTTTCTCTTAGCGAAGATCTGCCTAGAAAATT
GTGCAGAAATTATGAGACTCTTAGATGATTTTCGGCGTAAACATCGAGGGAGTCAGGGAGAAGTTAGACACCTTTC
TGCTAGACAACCTTTGTGCCACTCATGTCTAGGCCTGACTTTCTGTCTATCTGAGCTTTGAGAAGCTCATGTCTT
ACTTGGATAATGATCATCTGAGCAGGTTCCCAGAGATAGAGCTGTACGAGGCTGTGCAGTCTTGGCTGCGGCATG
ATAGAAGACGCTGGAGACATACCGATACCATCATTGAGAATATCCGGTTTTGCTTGATGACCCCAACCAGCGTTT
TTGAGAAGGTTAAGACATCAGAATTTTATAGATACTCCCGACAGCTCCGTTACGAAGTTGACCAAGCATTGAATT
ACTTTCAGAATGTTACCCAGCAGCCTTTGTTGGATATGAAGTCAAGCCGCATCCGTTCTGCAAAACCGCAAACTA
CAGTATTTTCGAGGAATGATTGGACATAGCATGGTTAAACAGTAAAACTTCTCTTAAAGAAACCAAGAGTCTGGT
GGGAGCTAGAAGGCCCAAGTACCTCTGCGACCTGACTGCCTTGCTATCGTCAATAATTTTGTGTTTCTGTTAG
GCGGGGAAGAGCTGGGCCCGGATGGTGAATTCATGCTTCTTCCAAAGTATTGAGGTATGACCCGAGACAGAACT
CCTGGCTGCAGATGGCAGATATGTCTGTACCACGCTCTGAATTTGCTGTAGGTGTTATTGGGAAGTTTATTTACG
CCGTAGCAGGCAGAACCAGAGATGAGACTTTCTATTCAACTGAGAGATATGACATCACCAACGATAAATGGGAAT
TTGTGGATCCTTATCCAGTTAACAATATGGACATGAGGGGACAGTGCTCAATAACAAATTGTTTATCACCGGTG
GAATCACCTCATCTTCCACCTCCAAGCAAGTGTGCGTGTGTTGACCCAGCAAAGAAGGGACCATAGAACAACGGA
CCAGGAGAACTCAAGTGGTTACCAACTGTTGGGAGAATAAGAGCAAGATGAATTACGCGAGATGCTTTCACAAGA
TGATTTCTTACAATGGCAAGCTTTATGTCTTCGGTGGTGTCTGTGTGATCTTGAGGGCCTCTTTCGAATCTCAGG
GATGCCCTTCTACAGAAGTATACAACCCAGAGACTGATCAGTGGACCATCTTGGCATCCATGCCGATTGGTAGAA
GTGGCCATGGTGTGACTGTGCTGGACAAACAAATAATGGTTCTTGGAGGCCTTTGTTATAATGGTCATTACAGCG
ATTCCATCCTCACTTTTGATCCGGATGAAAACAAGTGAAGGAAGATGAGTACCCTCGGATGCCCTGCAAGCTGG
ATGGTTTACAAGTATGCAACCTGCATTTTCCGGACTATGTACTGGATGAGGTCAGGCGTTGCAACTAATGACATC
CTCCTCCCTAAAAAAGAGGCAACAAAGTATTTGTTTGCACAGAGTAATTAATTAACATATAAAGAAAAACC
TCACCAGTTTTACTATCAAAGCCATTGGTCTAACATTGTAAGAATTTTTCATTCTGTGCTAGCATCCTTTTTTTC
TTTTCAGTGGCCTCAAACCTCATGCAATAAGTTAATTCTAAGTGCTAGCTCTTGAACTACTTCCAGAAGCAGTTG
AATAGAATGCTCCACTTATCTGGGATATTGATTTTCTGCTTTAAACATTTCTTTCAGATGTTAGCGTAGGAGTCA
TGTGTCTTCTAAGAGAAGACCCGATAAGTGTCACTGGATGTGATTTGAGTCTCTGTCTCTATCTGAAACCTTTTT
GAAGATTTATTTGAGTGTATTTGAGTCTGTTATACTTTTTAGTTTTATTATTTAAAAGTTTAAAACCTTTGACCT
TTTTGATGGCTTTTTGCTGAAAATGCAAAAATATAAATTTTCTACAAAATTAACTTTTTATATTCAAAACACTA
TTTCTAAGCTGCCTTCTCTTATCCGCATTGTGTTAGTGAAAGCATATTCTACTCGCATACAACCTATAAATACA
CAAGGCACATCCCTTTTATGCGTGGTTAGGATTCTATATTTTAAAGCTAGTGCACCTTACTTGCACACACAGTTCC
CCATACTTGTGTAATTTTAGATGTAACGTCTTTTACATATTAACATTTTATAGAAAGTTGAAATAACTGGAGTCC
TCATTTGCTATCAAAGTAGCCTATCTTCAGTCCATACTGATTGAGTAATATTTGAACTCCTTATATTTCTGAAAC
ATGTATGGTTATGAAACTAACACCTTATATTTTATTTTCAAAGTAAATGTTAGTGTTCTTTGTGATGTATGT
CTTTTCTTTTGAAGATGTTTTTCTTTGTCAGTCTGTTTAAACGTTACCCTGTTTTTAGTGAGAATCGGAGTGGTAT
ATGACAAGTTCTGGCCCTGCAGCATGCAAGCACTTTTAAAGAGCATTAGGTAATACCAGACTCCTAAATCAAGG
CCCCTTAAAGTAAGTGCAACTCCCATTTTTTACATTCAGTAAGGCTGCTGCATTTGTTATTGAATGGAAGGTAG
AAACTCTTAGAAAATTTGACCTCAGTTTTGACTTAGAGGTAAGAAATAGAATTATAATGTTACTGGTTTTATCTA
CTTGTTTTATTTGTACAAAATACCCAGCGACACTAGGGATGTAAGCCCTCAGTTTTTGTTTTTATTTACTGAAAGC
TATTAGCATGAAGGATAGTAACCACAAAGTTCAGAATGGATCAAGAATAGCTGTTTAAAGCATTATATAAAGT
GTTTTAGGATTAGCTGCACCTTTCAACTCTTTAAATGCAGAGGAAAAACATAGTTGACAAAGTTAAGCAAGAAT
AACCTGGGAGTGGATCATTGAAATTGATGCCATTTGCGCATGAGTAGTCTATATCTGATACAGACTAGATCTATA
CTGGCAAACTTGCCAGATCTTAGAATATTGGTGCAATATTGCAATGCCTTCTATATGGCTGCTGATGTATAAAT
TTTCTAGTTTCACTTTGTTTGGTGTTTTTTGTTTTTTGTGTTGTTTGTGTTTTTGTGCTGCTGCCACCATTGA
ACATAAAATGGAAGTGTGAAGTCATGGAATGTGAAGACTTTGGTTTTTGGGGGTTTTTGGGCAGTTATTAGAC
ATACTATGAGATTAAACCTGATCTTCAAACTCCAGAATTGGAGGCATTTGGGTTTAAAGAAACCAGGTACATAAGT
AGCTTTTGAAGAAACCATTTGGCATTGATTTCAAAAATCAATAATAATCTTATTTTATATATGAGACTTATATTT
CATTAACTAGTCCTGTCATTTACTTACAGTTTCCAAACATGAAATTTGGTATCTTGTTTCCCATGGTAATATGGG
TAAAGTCTTTTTCTACATTTAAAAAATACATTATTTTATTTTTGAAAGTTAGGAATAAGTTAGCCATTTAATTT

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FIGURE 1324B

TTTTCTACATTAGTTTGTGGCTTTGTATGTGTGCTATTTTGCTTTAAAGAAAATAACGTCTTCATTATTTTCCT
CATTGATGTCTTTTGCTAGAAAAGACCAAGAAAGAGCCATCAGGCCAGGTATCCACATCAAAGCCTTTACACTAT
AGTGGTGGTTCTCTTTAATTGCTTAGATATGACTTCATGACCCTAGTCAGGGTGACATCTGGGCAAACATTGAG
TATTCTTGGTCTTCCATTTTAAAGACAGAGGCCAAGATCAAAGTTCATGTTTTGTAAAATTCGTAAAATCTTAAC
TTGAACTAACTCTGGGTTTACGTTTACGTAAGTCACGTCGGACCTGATGTTAGCTGTAATCAGTTTTGAGCTTTA
AGGATAGTTGCTGTTGCTTGGGTTCTGAATGTATGAGAAAACCTCCCTGTTTATATGTAGTTCTAATTTAGGTTAT
TTTAAATCCATGATTAACCTTACATTCCTTTTAAAATTTATGGTTTTATTGCTGCAAGAGATTTATTTTGTATATA
CTAAACTATGGAAGTTTTTTCATAGCATTTTTTCAAGTTTATTTTTGTGTGCTTCATTTGGAGTTTTGT
ATATACATTGCGCTCAAAAAGTAGTTTTTGA AAAATTCAGTAAGATTGAATCTATACAGTTTAACTGTTATG
ACCTTTATGCGTGTGTTTTTCACTTTATATCTCAAATGCCAGAGTTCACAAAATAGCTGATCTTCATTAATTAC
ATCTTAATTAGAACCATTTGTTCTCTTCCGTGTCTTTGACCTTCTAAGTTTTGATTTTAAAGAAATTCCTTGCAC
TACAGCCTTTTCTTAAATGCAAGATTCTCACTTTGAAGGTTTTGTGTTGGAAGAAATGCTACTGGTTTTTAAAA
AGCAAAGCTTAACTAATAGAATTATTAGCTTTTCTTGAGACAGCTTTCTGTGTCCTCATTACTCTGCTCTGTGTG
AGTGTTACTAGAATTTGTGAAATACTGACTGAGCCCTTCACTTATCTTTTCTAAAGCAGCACCTTTGGACACCTC
ATTCTGGGAAGCCTGCTCGAGTCATAGTAAAGGACACACGCTTTATGTGGGGAGAAGTGGTAAAAATGGAGTTTT
GTCTTAATTACATGAACTAAGCTTTAAAATATTTTATAACAGATTATTTGAGCTGCATAATCTAAACATGTCAA
ACGTTTCAGTGGGACTATTTTTATATATGTATATGTGGGTGTAGGTCATAACATTTTCACTTTTATAATATAAATTGT
TATTTCACTTTTATAAGCTATCTCTCAGAGGAGACTAGCTCTTTTGAGAATTCATAATTTAAAGTTTACTGAA
GTAAAATGCAACATAGATAATAGTGAAATCAGATATAATTGAGGGCTATATGGCAGTAAACTGCTAGTGCCAG
TTTTCTTGTGCTGTTTATACATTTTTGATTTTTGTGTTTTGATTCTGAACATTTTGAAGATCATATGTTTGT
TCAATTACATTTAGAGTTGGTTTTGGGAATAAATATCTTCTAAAAGAGATTTATCTTAAAATGGAAGTCCTAAA
AATTAGTTTATCCAGAGTTTATAAAGTCAAAATATTCAGTAGGCATAGACTGGAATAGATAAATTCATGGAAATCA
TATCCTTTTCACTACACCGTATAACTTCAATATTACACAAGTAACATTGAGGAGAATGCCATCAGCTTTGTTCTCC
CTTAAATCTTTGTTTTCTTTTTACATTTTGGGAACAACGCAATTTAAATGTTATTAGTCAGTATATAGTAAG
GATTAGGTGTTTGTCTTCTGAAGGAATGGTCCAGTGAGGTGATTGGGAGAGGTTATTTTCTACCTAACTTGTATA
TGCCCTATACCTCTTGGGCATACTTTGTCTATAGAAAAATATTTTGACCTTTAGGTACATTTTGGGCCAGTAGTC
AAATAATCCTAGGGCCGATATAAAAATCTTAGAATAATTTAAGGTTTGCTTTTATACCTGTTTTGAAAGCCTTT
ACATTTTTGTCAGGTAATTTTTCCCAAGCCGTGGATATAATCTATTCAAACATGTTTATGCTATCCATTCTGTTT
TTAAATTGAAAAAATGTTAAAAGTGTATGAAGAAAAGTTAAATAAAATATTTTAACTTTT

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FIGURE 1325A

GCTCATTGTTGGGGGCATGAATGTTCTCCTTACTAACCTCTCATGGAGTCATGTGATAACAGCCATGTCATGTGTAT
GGATGCCACCATTCCTGAATTTCTGCTAGAAATAAGTAGGTTGCTATGCACTTAGAGTCATCTTTGCAAGGGACT
CATTCCAAACCAATTCCAATCGACCTGAAAGTCCCTTGCACTAAAGAAATGTGATTTTTTTTTTAACCCAAGGAGA
AAGTTGGTTGTAACAATTTTACCAGAATTAGCAATCTGATAGAATAGGCTTTTTTAACAGGAATTTTAACTG
GCGGTGCCAGTTGCAGTGAAGGTGAAGTGGCTATTGCTTTATNNNNNNNNNNNNNNNNNNNNNNNNNNNNNN
NNNNNNNCTGAAGATAGAGCGTTGAACAAACCCAATGGTCTTGCCCTCAAAAAGCTTTATGTGACATAGAGCA
TCCAGCTCGACAATTAGCAAACCCCTGATATTATTCATGGACTTGACATGAGGTTTGGACTATTCATGAGCAACA
GCAGAAGGTCCATGACCCCTACAAATTTACATTTTTCTATGGCCCATATTTGAAAACCTCACATTCGGAGCAGGC
CACTTTATATTTCGTGAGTGATCCCAAGCTCACTGACCAACAGAAAAGATGCTAAAAAATGTGTCTTATCATGTG
CCTGCTCCAACCTGATGGGTAATGTCTGCCTTTAAGCCCCAGAAATGGATTCTCCAGGCACAGTGTGGAAGAGTGT
GTGGTTGATTAGCAATGTCTGCCTTGGGTGAGGAAAGGGGAACACTCCTCAAGTGCCTCTACTGTCTATCTCCAT
TCAGCCTAGCACCATCCCATGTAGAAGTGTGTCTTCTACTGCTTGCCACGTACAAGTGTGAAATGCCAAGG
TGAGACTCGTACACTTGGGGATTTGCAATGGTTTTTACCCCTCATGAAGGTCAGAGGTGGACTATTTGTACACAT
ACACACATGCACACCCTCTCACGTCTCCAGAGGCTGAAAGACCATCAGCATCTTGTTAACTGCCATGCATGAGC
AGCAAGGACAGCCTTCATAATCCATGCCCCATTTCTCTGGAAGCCTGGAACTTTTCATTTCTGTTCCTTGC
TAATTAACATCTAAACATGCTTCTCATTTCAGCCATTGCTGATGCTTCTCAGTTGAAGTTTGTAGCCACATCCCT
CTTACAGCTAGTGAATGAGTTGGTAGCAGATACTGTATNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNAGGGGAGGGTG
GGATGGGGTGTGGGTAAGTTTTGCCTTTTGTGTGTGTGTGATGCCGTATATAGTGAAGGGGTGAGGATATTCTA
AACAAAACAAAATGAATAATTTATTCACAGAACTATTAAGATTGTATTGTAAAGCTCACAGCAAGCTCAGTGG
GCAGCAGCTGCAACATCTCACCGGGGAAATTATTTATTTAACGTGAGTGAGATGTGGGCCGGAGAAGGTAGCTG
AAGCTATTTATAAACGTTGTGTACCTTCTTCCAGCTCTCTCCCTTTGTGAAGGGCGCAGCAACTATACCCTT
GATGGATGGAGATTTATGCAATGTGTTTTACTGGGTAGAGTGACAGACCTTGGCTGTCCCTGGAATTGAGAATCT
GGACCTTATTTCCAGGCAGAGAACACTGTCTCAGAAATGGGACTTCTGATAATGAAACAGGTTGTCCAACATTT
TCTAATACGCATTCTACAGAACACAGGTTCCAGGAGGCATCAGGTTGGTGTGATGCAGACTAAGGGTTTTGTGGT
CAAATATCCTTAAGAAACAAAGTTAAGTCAGTTTCTTTCTGCAAGGACTTTTCAGCCTTCAATGTGTGTCTGTGC
ATGGTGAATCCCCAAAATAATCCTTGAGTCTGTAGCATTTCCTGAACTTACATGACCAGGATACTCTATTTTGC
AGATCACCCACAGAGCTAGGGTTCCACCGAGTATACTTTGCTTAGGTTGACTTAGCATATCTGAGGTCTTCAAG
GATAAAACTGCCACCCCAACACCCTTCCATTAAAAAATAACAAAATAGCACACAGTCTCCATCTGGTTT
ATAGCAACAGAGGTACTTTATTTAATGAAGCAATGGTTCTAATCCTGGATACTGCCACGGACTACAATTCTATCC
CTCCCAGAGGGAGTGGAGGAAGTCTTGGGTGGTGTGGACAGAAGGAAGAGAGGAGAGGGTGAGTGGGGTATAGGG
CCCAGGGTGGCTCCCTACTCCTCAGGCTCAAAAGGATGCTCAGTGGGAACAGATGATCTCTTGATGAGTGCTTCT
TCAGTTTCATAGTTTGAATCGTTCACTGTGTGCTTTTGGGGGGTTTTCAATGGAAATTCAGTTGCTTTGCAAT
TTCTGTGTCCGTCTTTGGTCAGTTGTGCAAGCCTGCTCACTGTGATGTAAGATGGCCTTTTCATCTGGCTTCTCT
CTCTTAAGTGAGAAAGATTGTCTTCAGGGGACATGACATCAATAGGTTTCTGGAATGAGGGACTCTTTCTCCCC
GTGTTTTGCTTTGTGTTACATTTTCTTTTCTAATGGCATTGAACTTTAAAAAAATGGATTCAACTGTTTTTG
CAGAATGTAGAAAGTATTCTGTGTCCTTGGTTAAAGAAATCCACTTGTGAAGTGTGCCTGGAAAATGAAAGTTG
TGTTTTTTAAAGAGGAATATTTGAACTGCTTTCTATGCAATGCTTAGCTGGAGAAAAGTACAGGCAGGCGTCCCA
TCTCCCAGCCACTTCTCAAAGGTGCTGCTGTGTTTTAAAGACCAGGTACAGCCAGGGCAGTATTTGCAAGGACAT
TCCTGCTTACTTTATCCCTTTGGTTGGAAAGCTCTAGATGATTCCCGCAGCTCCTCCAGACCCCGCCTCCCTGCC
CTCCCCAGCTGGTCTGGGAAGAGGTGGTCTGCTGACCTGTGGTATCTCAGAGGGGACGTTCTCTCTCTCTCTGT
GCACCAGGTGGGCTGCACCCCTCTGCCTATTTCAGGATGTGGATGCCACAGGAGAGCAGCAGGCAGTGGAACTTC
AGTTGCACTGGTTCTCTGGTGGCAAAGGCATGAAGCACAGGGGTGATTAATCCAGGCTACTAGAAAGCTCCAG
AGCAAAGTGTGCGGTCCCACAAATGCTTGGCTGGTGGGGTCTGGATCAGTGCTGAGATAGAGTTGGCAGAAGAA
GCAGAGGCACTCTGCTTGTCTTTCCTAGCCAGTCTCTCCCTAACAACACAACACAACAACACAACATCTCAGCT
GCGCCATTCTGTGCAATCCAGTGACCAAATCCCTTCTTGCCACCTCTATGTGAGCAGGACTGACCACATCAC
TCCCCGAGTTCACCACCAGCATTCTCTCAACCTTTTCCATCACAACCAGTTAGAACCCTACAGGCAACAA
GGCCTTCTAGAAATCCGCTTAACCCTTGGCTGATAACAGGCAAATTTAGTCTGCTACACTTTGTTAGGTCCAGAA
GGAGCTGCCCATACTACTTTCTTATGAGCATGCTCAGTATGGCATATGGACATGTAATGTCACATCTTTGTGGAG

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FIGURE 1325B

TGTGATTTTCTTTTTTTTACATATTTGTATGCAGTAGAGAGCCTGTTGTAGAAAACGCTCCCTGTATCTTGCTGTA
CTGTTAAAGAAAGCTGAATTCCACATTGCCAACAAAAGCGTGAAAATGTTTCATGAACCTTCCTCCAGGAAAAGCC
ATTCAAGCCTGATTATTTTCTAAGTAACTTCAATTAAATTGAAGAAAAAAGAG

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FIGURE 1326

MLSWRKVQAGVPSPSHF~~SKVLLCFKDQVQPGQYLQGH~~SCLLYPFGWKALDDSRSSSRPRLPALPSWSGKRWSADL
WYLRGDVPPPPCAPGGLHPPAYSGCGCHRRRAAGSGNF~~SCTGSPGGKGMKHRGR~~LIQATRK~~LQSKVCGSHK~~CLAGG
VWISAEIELAEEAEALCLLS

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FIGURE 1327

CTGGCTCAGTCATTCCCCACTTAGCCTCCCAAGTGTTGGGATTATAAGCGTGAGCACCATGCCTGGCCCCAATTT
AAAATGTGGAATTCAGTTGGTGTCCAAGACTTATCTTGAGACTCTTAAAAGCATCAGTCTGTAAGTCTAGAACAAAT
ACAGTCTTAGATTTACCCAAGTGCCTAGATATCATTTTATAATGATTAGAATTGAGTATTGTGGGTCCCCTAATT
CTGTGGGTGCCTTAAGTGAGAATTTCTAAATGATTTTCACATTCTAAATGACTTTGGGTTTTGAACCTCTCCATCT
AGTTTACTTCTAAAATGGGAAGTTGAGGCAATTCAGGTATCCAGGCAAATCTTTGTATATATTTTTTTGTGTACA
TGCACACATCTCGAAATCCATTTCCGTGTTTAAATGTTAGTTGTTTATGTGTTAGTATTCCCTGTGTCTACTGTTTT
GTTGTTGTTAATATGGGTAAAGTGAGCCCTGAAATACATGCTAAACAAGACATGAAATGCAGAAAGGTACATAGT
GTTTCAAGTGCATGGTAGTTTGATCTGTGTTTTACTTTATTGTGTTTTCTTGAGTGTAAAGAAAGAATAAATCAA
AGTTCTTCATACCCATTTTGACAAAGTGGAACAGTGGAGCTGTTTTTTGCTTTTGTTTTATTTATTTTTTGCCA
CTGGTGATGATAGATTTCAAAAACAAAAGGTGGCAGCAGCACAAATGTTTCATGGTGAATTATCTCATAGTATCTA
GATTGATCAAGATCTGACAGAAGGAATGCACAAAGGATTCTATATTCTTAATGATTTATTAATTACCAGGATCCT
TTTCTAAATTGAATGTACTTTTGAATTACTAGGTTCTTCTTTTTTTTTGTTCTGCAATAGTGAAAGAAAAGTCA
GTAGTTTAGTTTCAAGTTTCTCATGGAAATTGGTAAATGTTAGTTTGTAGTTTCTATCTATTTTTTATTTGTTTTAT
TAGCGTAGAGTAGGAAGTCTCATATTCTACTGTTCTATCTAGGATGGTGAAATCCAAAGGTGCCTAAGTGTAGT
AAGGGATTGTGACAAGATAGTACACATTACTATAAGGGCTATTATTTCTGAAGTGGATGTCCTTAAAGCAAA
TAACTGCCCCTATCTCTACTCTAGTGTCTCTTTGTCTTATCAACATATACCTCCAATAAGTAATTACATAA
TTCACCGTTAAACATGGACCCACTCTAGGTAAAATTACCCTCATGGAAACATTTTCTACTGTGAGAATGATGAATT
TAAAAATTATGTTTGAATCACCTAAAATGTATGTGCAGCTTCTAGATGGCCCTTAGATCTGCTGGGCTCTAGCT
GTGTACTTTAAAAAACAAAACAGCTTTATTGATATATAATTTACATATTATGTAATTTACCCACTTTTAAGTA
TCTAATTCAGTGNN
NNNNNNNNNNNNNNNNCCTTTTGCTTTTTTTGCGAGCTCATACCTAACACAAATCTAAAGTTTATCACTGTTGCCA
GGATAATTACAGCAGGTTAIGTTTGGTTTCATTTTTAAGAGTGGAGGTGTTTCATGATTCTAAGCTCAGGAATCTT
GTGATCATGTATTAAATATGTTATCTCATACTATAATGATAAAAAAGCTTAATGATGTGGGTTGGGATGGATATT
AACATAAATAATTGAGTCCGCTGCTTCTATAGCAATGCTGTAGGATAGAACAATAATGTAAGTGATATATGTAAT
TAAAAAATCTAGAAGCCACATTAAAAATAAAATAAACAGCTGAAGTTAATTTTAATATTTTATTTAACTCCAC
TACATCCAAAATGTTATCATTTTTAACATGTAATTGATGTAAAGATTTATTCTGATAGTTTGTACTATTTCTTGTA
CTAATTTTTTGAAATCTGGTATGCATTTTACAAATTTGGGCAAGCCACATTTTAAGTGCTCATTAGCCACATGAG
GCCAGTGGATACTGTATTGAATAGCACAGTCTTATAGCATATTTATTAATTTGTCTTGTAGTAAGATGAAATAGA
CAATAATACGGAATAATATCTTAAATGGAAATCTTTGTTAGTCTCTAGAGCCTTCATTGCTTGATAAATAGGACA
TCTAAACTTTAGATATAAATCAGTTGTCAATGAGATAAAATTATTGCCAGCAAATATTTTCCTTCAAAGATAAGT
AACTTTTGATATGGCAGTTGGTGAAATGAAAGAATATAATCTGCCTTCTTGTTAAATGGTTGACTATTCTGTAGC
TTGTAGGTAGTACGTATTAGAACTTGTGTATGTGGGAAATATTTGGCATAATACTGTTTTTCACTATATAGTAGC
TATTTTTTAAGGAAATTAGTTTCATACAAGAAAAAGATTATTATAAAAGTGATACTTTTGCATGAAATATTAGTT
TGTGTTGATAACTCTTAGTTAACCCTTAAAGTTTAAACAGTACTCAAAAAAATAATGAGAATCTAGTATTCT
GTAGTTAACTAATCTATAAGATAAATTGCTAAAGTACTAGGGAGCTTGTAATCTTAAAAATCTTTTTATTTTCAG
TGTTCAATTCAGGTTGGATATATTTGAAATTGTAGATTTCTATCTGTACAACATCTCCTAGTTAATAGAATTTTTT
TCCTTCCCCCTCCCTTCTCTCTCTCTCTCTCTTTTCTAACCAAAGGGCATTATCAACAATCATGCTGAATTCAAT
TAATATCTCAAGCTAAAAAAGTATGTAATTGAGGTTGTATCTGGAGAAGATGGGAAAACATTGTATAATTTAAGC
CCTTAATTGTCTGTTGAGCTTTTAGGGCTGAGTAATTGCCTTTTATACAAATAAAAGCTTTAACTCTTTTCTCAA
GAGTGTACCACCGTCTTAGAATCAGGTGTTTTAAATCCAGTTTCTTTTAATTAAATGGGACTGTAGTGATCCCT
ACCCTGTAGAGAAATCAACAGAAGTATAGAGAAGCTAAGGGCTTGATCAGGTTTCCCCTAGAACCCTGTGTTGCCCTGC
CTGCTGTATCTTCCATGTCTTTCTTATTCAACTTCTAGAAGTAGAGAAGGTTGGGACTTGAGTGTAGAAGAAACA
TCAGAATAATTTCAAAAACAGGAAGTTGGAAGTATAATTTTAAATTATTGTATTGTTTTTACGGATTTTACAT
GTATAGTTAAATATTAAATTCATCTCTTGCAGTTCAATAAAAGCTATAGTATAGATTTTATTTTAAAGAGTTT
ATATAATTCTTTTGTGAACCAATATGTAAACTAGAATATTTATTAACCTAATAATATGTATTAGTATCAATAAA
ATATGTATTATTTTTTAAATTTGGTATGAAACAAAATAAAATTTGTAGACACTCTTAAATTTGGTCATTGATATT
ATCTTTGTAATTTAACATTAAGTACTATTTAGTGTATATGCCTGAATTTAAAGGATGGAATTTAACCTCCCGGA
ATCTTACCAAAGGGGAATTTTAACCCGGGA

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FIGURE 1328

WLSHSPLSLPSVGII SVSTMPGPNLKCGIQLVSKTYLETLSISL

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FIGURE 1329

CGCTGGCGTTCCGCGCACGCCGGCTCACTGCGCCTGCCCGGCGTGTGGACGCACACGCTCCCGGAAGTGGGAGGT
GGCCGCTGGAGTTTGTGTGGCCGCCGCCGCGGAACGCGAGCCCGGTAATTTTTCAACGGAGAAAGGCGAGGCTT
TCGGGCTCTGCAGAGTGAGAGTTAGCAAGTGTCCGGCTCCAGCAACTCTCCTCTGGCGTGACAGCCGGCATGGAG
GATCCACAGAGTAAAGAGCCTGCCGGCGAGGCCGTGGCTCCCGCGCTGCTGGAGTCGCCGCGGCCGGAGGGCGGG
GAGGAGCCGCCGCTCCAGTCCCGAGGAACTCAACAGTGTAATTTGATGGCCAGGAGACAAAAGGATCCAAG
TTCATTACCTCCAGTGCGAGTGACTTCAGTGACCCGGTTTACAAAGAGATTGCCATTACGAATGGCTGTATTAAT
AGAATGAGTAAGGAAGAACTCAGAGCTAAGCTTTCAGAATTCAAGCTTGAACTAGAGGAGTAAAGGATGTTCTA
AAGAAGAGACTGAAAACTATTATAAGAAGCAGAAGCTGATAGCTGAAAGAGAGCAATTTTGCTGACAGTTATTA
TGACTACATTTGTATTATTGACTTTGAAGCCACTTGTGAAGAAGGAAACCCACCGGAGTTTGTACATGAAATAAT
TGAATTTCCGGTTGTATACTGAATACGCATACTTTAGAAAATAGAAGACACGTTTCAGCAGTATGTAAGACCAGA
GATTAACACACAGCTGTCTGATTTCTGCATCAGTCTAACTGGAATTACTCAGGATCAGGTAGACAGAGCTGATAC
CTTCCCTCAGGTACTAAAAAAGTAATTGACTGGAATGAAGGAATTAGGAACAAAGTATAAATACTCACT
TTTAACAGATGGTTCTTGGGATATGAGTAAGTTCTTGAACATTCAAGTGTCAACTCAGCAGGCTCAAATACCCCTCC
TTTTGCGAAAAAGTGGATCAATATTCGGAAGTCATATGGAAATTTTACAAGGTTCTTAGAAGCCAAACCAAACCT
GACAATAATGCTTGAAAAATTAGGAATGGATTATGATGGGCGGCCTCACTGTGGTCTTGATGACTCTAAGAATAT
CGCCCGAATAGCAGTTTGAATGCTTCAGGATGGGTGTGAACTCCGAATCAACGAGAAAATGCATGCAGGACAGCT
AATGAGTGTGTCCTCTTCCCTTACCAATAGAGGGCACTCCACCACCACAAATGCCACATTTTAGAAAGTAACAACA
GTTTTGTGTGTGGATCATTCCAATTGAAGTTGCTATGAAGAGGGAGAAGTTTCTGCCTTGGAATTGAAACAAAAAA
ACACAGGCGTCACAAGCATGTTACCTATTAAGAGAGAGAGGGTATCTCTGAAGACTAATTAATGTTAATTTTT
AAAAAGATGTGACCAGTTGACTTTTAGTATATCATCCCAAGTATTATCCCCAAAATGATAATGCAAAACAGAATA
ATTTGGAGACCAGGAGAAAACTGGTATGATTACTGGGGAGGGGAAGAAGCACAGGTGGTCAAGATAATAATGCA
TGTTTGCCCTCAGCTGTAGTTGCCAAAGAACTACCTGCCTCACAGATGAGCACGCACGGGTGCATTGTCAAAGT
CTGAGAAGGATGTATTGTACTTTGAAGGAAGACTTTCCATTCTAAGCTACCATGGAGAAGTATATGCTCCTCGA
GACCAGAGACTGTGACTTCTGCATCTTTGATTCCAGCGACATATGATAAAATGTTTTGCACATAGTTGAATCCAG
CGTTGATACATGAAGGACAGCATTACATCTTTTTTTCTATTATACCTTAGAAATTTCTCTTTGTTCTGCACCACC
AACCTGTATATCAAGCCTCCTTGCCCCACAAAGCTTCCAAAGCCCGTAAATTTGTTAATCTAGAGCAGGGGTCAG
CAAACCTACCACCCATGGGCCAAATCTGGCCTGCTGCCTATTTTTGTATGGCCTACAACTATGGTTTTTATATTC
CCTTTTGTTAATGGCTCAAAATAATATTTGTATAATATGAAAATTACGAAATTTTAGTTTCTCTAAATAAAGTT
TTGGAAAGAAAAAA

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FIGURE 1330

MKLKELGTYKYSLTLDGSDMSKFLNIQCQLSRLKYPPFAKKWINIRKSYGNFYKVPRSQTKLTIMLEKLGMDY
DGRPHCGLDDSKNIARIAVRMLQDGCELRINEKMHAGQLMSVSSSLPIEGTPPPQMPHFRK

FIGURE 1331

FIGURE 1331

[illegible]

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FIGURE 1332A

GGCGGAGCCGCTCGGACGATAAGGAAATTGAGATTTGGAGAAGTTAAATAACCAAGACTTCACAGACAAAGTCT
CACTCCTTTTGCCCGAGCCGGTGTGCATTGGGGTAATCTCGGCTGACTGCAACCTCCGTCCCCTCCGAGTTCAAG
TGATTCTCCTGCCTCAACCTCCCGAGTAGCTGGGATTACAGGCAAAGCC**ATG**ACTACAGTAGTGGTACATGTGGA
CTCCAAAGCTGAGCTCACTACCCTGCTGGAGCAGTGGGAAAAGGAACATGGCAGTGGGCAGGACATGGTACCTAT
CCTTACCAGGATGTCTCAATTGATTGAAAAAGAACTGAAGAGTATCGTAAAGGGGATCCAGACCCATTTGATGA
TCGACATCCTGGTCGAGCTGATCCAGAGTGTATGCTGGGCCACTTGCTGAGAATACTCTTCAAGAATGATGATTT
CATGAATGCACTGGTGAATGCATATGTGATGACAAGCCGAGAGCCCCCTTTAAACACTGCAGCTTGACAGACTCCT
ATTAGACATCATGCCAGGGCTGGAACTGCTGTCTGCTTTCAAGAAAAGGAGGGAATTGTGAGAATCTTTTCAA
ATGGGCCCCGAGAGGCCGATCAACCATTGAGGACATATTCTACTGGACTGTTAGGAGGTGCTATGGAAAATCAAGA
CATTGCTGCCAACTATAGAGATGAAAATTCACAGCTGGTGGCAATAGTGCTTCGAAGACTGAGGGAGCTACAGCT
ACAGGAAGTGGCTTTGCGGCAGGAAAACAAGCGTCCCAGTCCACGGAAGCTCTCTTCTGAACCCCTTTTGCTCT
GGATGAGGAGGCTGTGGATATGGACTATGGTGACATGGCTGTAGATGATGCTGAAATTCAGAAGTCAGCACTTCA
GATTATCATCAATTGTGTGTGTGGCCAGATAACCGAATATCCAGTATTGGTAAATTTATCTCTGGTACTCCTCG
GAGAAAGCTGCCTCAGAACCCTAAAAGCAGTGAGCACACCCTGGCCAAGATGTGGAATGTGGTTTCAGTCCAACAA
CGGCATCAAGGTGCTCCTGTCTTACTGTCCATTAAGATGCCCATCACAGATGCAGACCAATCCGGGGCCCTGGC
CTGCAAAGCCCTAGTGGGCCTGTCTCGCAGTAGCACTGTCCGGCAGATCATCAGTAAACTGCCCCCTTTTCAGCAG
CTGCCAGATCCAGCAGCTGATGAAGGAGCCTGTGCTGCAGGACAAGCGCAGTGACCATGTCAAGTTCTGCAAGTA
TGCTGTGTAACCTATTGAACGGGTGTGAGGAAAACCACTTCTCATTGGCACTGATGTTTCCCTAGCAGACTGCA
GAAAGCAGATGTTGTTGCCAGTCAAGGATCTCCTTCCCTGAGAAAGAGCTGCTTTTGTGTGATACGAAACCATCT
TATTTCTAAAGGGCTTGAGAAACAGCAACCGTGCTGACAAAAGAGGCTGACCTGCCCATGACTGCTGCCTCCCA
TTCTTCTGCCTTTACCCAGTCACTGCTGCTGCTTCTCCTGTCTCTTACCCGAACCCCTCGTATCGCTAATGG
CATTGCAACTCGTCTGGGCAGCCATGCTGCTGTGGGTGCCTCTGCGCCTTCTGCCCCTACTGCTCATCCTCAGCC
ACGGCCCCCCCCAGGGTCCGCTAGCTCTGCCCCGCCCATCTTATGCAGGCAACTCCCCTTTGATTGGTAGAATCAG
TTTTATCAGAGAGAGGCCATCACCCCTGCAATGGCAGGAAAATCAGAGTGTGCGGCAGAAGTCGGACCATGGTGC
CTACAGCCAAAGCCCAGCCATAAAAAACAGCTGGACAGACATCTTCTTCCCCACCTACGCTGGACAGTATAAT
CACAGAGTATCTTAGAGAACAACATGCTCGCTGCAAGAATCCAGTTGCCACCTGCCACCTTTCTCCCTCTTTAC
TCCTCACCAATGTCTGAGCCAAAACAGAGGCGGCAAGCGCCAATAAACTTTACGTCAAGGCTAAACCGCAGGGC
ATCATTTCCAAAGTATGGAGGGGTGGATGGCGGATGCTTTGATAGGCACCTTATCTTTAGCAGATTCCGTCCTAT
TTCAGTGTTCGGGAAGCCAATGAAGATGAGAGTGGCTTACCTGCTGTGCATTCTCAGCACGGGAGCGGTTCTCT
GATGCTTGGCACCTGCACAGGGCAGCTGAAGCTCTATAATGTGTTTAGTGGACAGGAGGAGGCCAGCTATAACTG
TCACAACTCAGCCATCACACATCTTGAACCTTCCAGGGATGGGTCTTGTGCTGACATCTGCTACTTGGAGCCA
GCCTTTGTCTGCATTTGGGGAATGAAGTCAGTATTGATATGAAGCATTCTTCACAGAAGATCACTATGTTGA
GTTCAAGTAAGCACTCCCAGGATCGGGTCATCGGCACAAAAGGAGACATTGCCACATTTATGATATTCAGACTGG
CAACAAGCTGTTGACTCTGTTTAAACCCAGATCTTGCCAACAACCTACAAGAGGAACGTGTGCCACCTTTAATCCTAC
AGATGATCTTGTCTTAAATGATGGCGTCTCTGGGATGTCCGCTCTGCACAGGCCATCCACAAGTTTGACAAGTT
CAATATGAACATCAGTGGTGTCTTCCATCCAAATGGACTGGAGGTGATCATTAACTAGAGATTGGGACCTTCG
AACTTTTCATCTTTTGCTACTGTTCCCGCTCTGGATCAGTGTGCGGTGGTGTTCATCACACGGGAACAGTGAT
GTATGGAGCTATGTTGCAGGCAGATGATGAAGATGACTTAATGGAAGAGAGGATGAAAAGCCCCCTTTGGGTCATC
CTTCCGAACATTTAATGCAACTGACTACAAACCTATAGCAACCATTGATGTGAAACGGAACATCTTTGACCTGTG
TACAGACACCAAAGACTGCTATCTTGTGTGCTATTGAGAATCAAGGCAGCATGGATGCCCTGAACATGGACACAGT
ATGCAGGCTGTATGAAGTGGGCAGGCAGCGTCTGGCAGAGGATGAGGATGAAGAGGAGGACCAGGAAGAGGAAGA
ACAGGAGGAAGAAGATGATGATGAAGATGATGATGACACCGATGATTTAGATGAGCTTGACACTGACCAGTTGCT
GGAGGCGGAGTTGGAGGAGGACGACAATAATGAGAACGAGGGGAAGATGGGGACAATGACTTCTCTCCCTCTGA
TGAGGAGCTAGCAAACCTTCTAGAGGAGGGAGAGGACGGGGAGGATGAAGACTCTGATGCAGATGAGGAGGTGGA
ACTGATCCTGGGGGACACTGACAGCTCTGACAACCTCTGATTTGGAAGATGACATCATCTTATCTCTGAATGAG**TG**
AGGAGCCATCACTGCTTGGAAAGAGATTCTTGGCAGGCGAGAACTGAGTCAAATGAATTCAGAACATATTCCCTT
CTCTTTCTCCCAGGGCTGTCTGTCTTTTAAAGGAGCTGCATGCCCTGCATTGAGAAGATTATGGCTTAGAGAGCCT
CATTGGCACCCGAGGGTCTTCCAGAATCAATAACCACCACAAAATGACAACAGGGACTAGGCCCTACTCTGCA

FIGURE 1332B

CCCCCACATCCACCCCCACCATTTCCTAGGATGGACATATCTTTCAAGGGGAAAAAAAAACCATGTCTCTGGG
GTATTTCACAATATATTTTCTTTGTATAGTGTTCTTTACTTAAAGAACAAGAAATAGTTTTTTATAAACTTTAA
AAAGGAAAAAAAAACAGGCATTTATAACTGAGGGTATGAACTTATATCCACCAGGTCTCTTGTCCTGCACTTCA
TTTTCTTTGGAAGAAAATGATGTCTAAAGAACAATATAGAGGCATTTTACATACGTATTTAAATGAAAAGGAAA
ATCGTGGTTTCTTAAATTGATAAGGATTAAGAATATTTTATTATAAATATAATATATGATTTTTTAACCTGTTTT
GTTGCCTCATATGCTGTCAGGTTAATTTGTTTTCTTCGTGCCAGAGGTGGGGAGGAAGGCACTCTGTCTGCTGG
GTAAATGCCTAAATTCACCTCACCTTCATGGTTTGGGGGCAGCATGGTCATTGTGGATATTGGTTTTGTGGAGTTG
AGGGAACCTTAGGATATAAGTTCACCTCCCTCTATTTTTCTTTGTGATTGAGTTTTTCAAAAATCTTTTTTCTTCC
CTTTCTCCCCATTGTGGAATTACAAATCAAAGGCCTTTTTCTTTAATGTAAAGTGATTTATTTAAAAAAATA
CAAAATAAACTACAAGTCTGTCTTTGTTAA
AAAAAA

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FIGURE 1333

MTTVVVHVDSKAELTTLLEQWEKEHSGQDMVPILTRMSQLIEKETEEYRKGDPPDFDDRHPGRADPECMLGHLL
RILFKNDDFMNALVNAYVMTSREPPLNNTAACRLLLDIMPGLTAVVFQEKEGIVENLFWAREADQPLRTYSTGL
LGGAMENQDIAANYRDENSQLVAIVLRRLRELQLQEVALRQENKRPSPRKLSSEPLLPLDEEAVDMDYGDMAVDD
AEIQKSALQIIINCVCGPDNRISIGKFISGTPRRKLPQNPKSSEHTLAKMWNVVQSNNGIKVLSSLSIKMPIT
DADQIRALACKALVGLSRSSSTVRQIIISKLPLFSSCQIQQLMKEPVLQDKRSDHVFKCKYAAELIERVSGKPLIG
TDVSLARLQKADVVAQSRISFPEKELLLLIRNHLISKGLGETATVLTKEADLPMTAASHSSAFTPVTAASPVS
PRTPRIANGIATRLGSHAAVGASAPSAPTAPQPRPPQGFLALPGPSYAGNSPLIGRISFIRERPPCNGRKIRV
LRQKSDHGAYSQSPAIAKKQLDRHLPSPPTLDSIIITEYLREQHARCKNPVATCPPFSLFTHQCPEPKQRRQAPIN
FTSRLNRRASFPHYGGVDGGCFDRHLIFSRFRPISVFREANEDESFTCCAFSARERFLMLGTCTGQLKLYNVFS
GQEEASYNCHNSAITHLEPSRDGSLLLTSATWSQPLSALWGMKSVFDMKHSFTEDHYVEFSKHSQDRVIGTKGDI
AHIYDIQTGNKLLTLFNPDLANNYKRNCATFNPTDDLVLNDGVLWDVRSQAIAHKFDKFNMNISGVFHPNGLEVI
INTEIWDLRFTFLLHTVPALDQCRVVFNHTGTVMYGAMLQADDEDDLMEERMKSPFGSSFRFTFNATDYKPIATID
VKRNIFDLCTDTKDCYLAVIENQGSMDALNMDTVCRLYEVGRQLAEDEDEEEDQEEEEQEEEDDEDDDDTDDL
DELDTDQLLEAELEEDDNNENAGEDGDNDFPSDEELANLLEEGEDGEDEDSDADEEVELILGDTDSSDNDLED
DIIISLNE

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FIGURE 1334

CACACACACACACACGCCAGGAGCAAGGGAGCTTTCGGGGCCACACTCCCAGACGCCTCCCTGAGCCCTGGAACCC
GGACTCGTTGCTCCTGGCCTTCCATACAACATACGAGCACATCCTGCGGTCCCACCCAGATCCCCTCCTCCTCG
CCATCCCATTCTGCCCCCTCCCCACCCTGGGTACAGAAAGGGACTGAAGTGTGGGCAGAGAGGGGGCTTAAGGC
CCCTGGGCACAGGCTGGGATCAGGGCAGT**TGAG**CGAAGGGCAGCTGTGTCTGCTGCCCTCCCTTCTGGAGGCTGGAGG
GGAGAGGCCAAGCCCTTGGAATAATGTAGCAAATGTCTGGATGTGCGATAAGTGCGTGTATGTGCGGGACAGGCCC
CGAGAAGCTAGTGACTCCTGCACACCCCCATTGCACAAATGAAATCACAGCCCAGGAGGGAGGGTAGCTTGGCAC
TGGCTGAGAAATAGAGCTCTCTCCCCGCCCCCTCCCCCTAACCAAGGGATTGTCTGACAACCTTGTGGGGATAG
AAGGGCTCACAGGGCAGGGGTCTCAGCTGCCCCCATCCTTAGGGCAGGGGAGTTAGTGTGGAGCCGAGAGCAGGT
CCCAGCTCCCCCTGCCAGCCGCACTGTCCCAGGCCCAGGGACCTCTGCCGGGTCTCCAGCCCTTGCCACACAG
CCTAGACGTAGTAGCCTGGGCTTCCAGCAGGTGGCGAGCTGGTTCTGTGCTGGAATTTCTCCTGGGTTTCTTGGG
GTCAAACATGCCAACCTCCAAGACCCCATCCTCACGTCTCCCACTTTTCTGGCGCTGGAGTGTGCAGGGCGTAGG
ACCTGCATGTGTGGGTGTGAGAATGGGGGCGGTGGACACCAAGGGGCGAGTGTGTGACTAGGTGTGTGTGCACAT
GTGTAGGGTGCAGACGCATGGGTGCCATCCTTTGCGTTTCACTGTGCGTCCAGACCCCTCACAGCGGGCCCC
CCCACCACACCTTGGTCTCTCCAGGCAGCTGTCCCAGGGCGCCCAGGCCTGCCTTGACCACAGCCCTCAGGAAA
TCCGGCAAGGAGGGCCCCCTGCAGGTTGGTTTCAAGCCCCAGGTAGCAAAACAGAGACAACAGCAGCCCCCGCCTGAC
CCCCTGCCCCCTCTCTGTGGAGGCCCGGGACCCCCGCAATAAGCACCACATGGGTGAGGCTGTCCCTGTGAGGGTC
CCCTGCCAGGGTCCCTCTGGGGTTCTGGGCCATTTGAGGGGCTCTTTGATGGGCCAGGCCGGCCAGAGTGAACCT
CCGAGCACTTTCTGGCTGGTGCCCCAACCTCTCCACTCCCCACTCATTCCACCTTGAAAAAGGGCTATAGGTCC
CCTGCCCTGCCCCGGGTCCAGTTTACAAACAGTGTGGGGTGGCCCCAGGGCCTGGCCCCACTCTCCCTGCTGTGCC
CACTCCTCTCCAGACTCCACCTCCCCAGTGGGTATGGGCCCTCCACATGCCAGGTAAGTAGCAAACCCCCACTCC
CTCCAAGGACCAGGTCTCAGAGAAGGCCCTGGTCACTGCCCCCGGCCACCTGGAGCCCATCGGGGCTGCCTCTC
CCAGCCGCGACTTCTCCTTTTGCCTTAGGCCTCGCGACATCCTGATCTCTCCTGCAATAACTAGGAATCGAGATT
CCACAGTAGACGTCCCTTGCCGTGNN
NN
NN
TAGTATCTAGTATGTTAGAGTTGGGAGGGGACCATAGTTATGTAGCCCAGCCCCCTCATTCCCAGAGGCACCCAG
AGGGCCAGCCTCCAGCCTGACCCAGAGCAGAACCAGGACACAGGTTGGGGCCCTGGTGCTGCCACCTCCTCTG
CTGGTCGGGCTGGGACCCCTTGGCCCTTAGGAGAGGTGTGGTACAGATGTTTACCTCAGTTTATGTCACTGTG
GAAGAAACAAAAATAATAGCAAAAAATAACACTGTAGACATGAAGACTTAGAAGACAAAAAATAAATTCAC
ACAAAAATCTCCCTTGTGCGATTCTTCTGTGAAGGTACAGTGTGTATGTGTGTTGTGTGTATGTGTGTGCGTG
TCTCTGTCCCAGACCCCTGTGTCCCCACACTGCCCCCTGCTTTCGGTGCTTCCCAGAGACCCCTCTGAGCTGGC
CTGTGGGGCACGGGAAGCCCCCTGGATGGGAGGCGGGGCCACAGGTCGGCTAGAGGGTCTCCACCAGGCCCCACTG
AACAGAACCCACGGCTGCCAGAAATGTTCCCTGAGCCACACTGTGGCCAGTGGGACAGTCCCTGGTGGCTGACAT
CAGCGTCCATGCTTGGCTCAGGGCTGGGGCGGGGTCTGGGTAGAGTCCTAGCCCCAGAGCCCCAGCCCCCTCAT
GTCTTGCCGCCCTTCCCTCATGTGTTTGTAAATACTCTGGCATCCTTGGCCCTGAGAAGGTTTTTAAATGTGTT
ATTACTTCTCTAAACATGACGATTGCTATAAAAAATAACAAAAGTTTAGAAAAATGTAAAAA

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FIGURE 1335

THHTPGARELSGHTPRRLPEPWNPDLLLLAFHTTYEHILRSHPRSPPPRHPILPPPHPGYRKGLKCWAERGLKA
PGHRLGSGQ

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FIGURE 1336

CGGACGCGTGGGCAAGTAATTAGAAAGTAATCCTTCATTTAACATCCCCACTGGGTGCCTCGAGGTATTTCTTGAA
GCCGAATGGTCCCAGGGTGTTTCAGGGAACCTTACGAATTAAGAAATACTTGACTGTGGAGCAAATAATGACCTGT
GTGGCAGACACGTGCAGGCGCTTCTTTGATAGGGGCTATTCTCCAAAGGATGTTGCTGTGCTTGTGACACCGCA
AAAGAAGTGGAGCACTATAAGTATGAGCTCTTGAAAGCAATGAGGAAGAAAAGGGTGGTGCAGCTCAGTGATGCA
TGTGATATGTTGGGTGATCACATTGTGTTGGACAGTGTTCGGCGATTCTCAGGCCTGGAAAGGAGCATAGTGTTT
GGGATCCATCCAAGGACAGCTGACCCAGCTATCTTACCCAATGTTCTGATCTGTCTGGCTTCCAGGGCAAAACAA
CACCTGTATATTTTTCCGTGGGGTGGCCATTAGGAAGAACTCCAAATCAAATGCTATGTAAATGTCTATGGGTG
ACAGTCTGCTGATGGTAGAAACCTTTCTTTTTAGTTTACAAGTCAGAGATTGGACGGAGCTGACACAAAGAGTT
TGGAGCTCCCCCATTTCTGGCTCTCCTTTTCAGGGGTTCCCTCCCCAACCTTTTCAGCAGCGGTGGCTGCCCCC
ATTCTGACCCCTGACTCTTCCAGCCAGAAAGATGGTGGTTTTCTAAAGGAACCTTTAGCTGTCTGACAAATGCCG
ATCTGTGCTTGCATTTTGGGTAAAAGCCATAAAAAATAAGAACTCAGCCTGTGGCCTTTCTTTCTTCCAAGGT
GGGCTTCTTTTTTTAAGTGACTTCATGCAGTTTGTTGCTTTTAAAAATTTGTCCAGAATCGTTTTCTGCAGAAGC
ATGGTCTGTTAGGAGCTTACTGGCCGTAGCAGAAGCAATTGTTTCTGAATTCCTTGACATTTATCTTTGCTGTAT
TCATTTAGGGCTTGGGAGAGTCCGAAGATAATTCAGTCACTGTGAGATTAATAATTTTGTGAGGACAAAAGATAC
CGTTATGATTATTTAATCCTTTAAAATTGTGGTCTCCAGAGCTTGTTCTCAGAATGGCCCAGACCAAGCCTTAAT
TGTGATAGTGAATATTAATGGTCACTTTAAGGAGAAATTATAGGCCAAGATGAAATGAACATAAACCTGTTTGCC
CTGGCTTTCAGTGGGAAGATGATATTAGAGACCAAAATCTGGTTCTGAAGGTGTGTATCAGCCCTAAGGTGAACCA
GACTTGGGAAAGATTGTCTTTAAAATCAATGAGTTTATGTTTTAACTTCTCAGCTTAGTTCTATGCATTGCTCT
ATAACACACCTAGTTAAGTTTTATGTTATTCTTGAACGTGATTTTTTTTCTATTTACTTTTCATGGTTTGGTGGG
CCATTGTTATGGACTGAATGTTTGTGTCCACCCCTTACCCCCAAATTCCTGTGTTGAAGCCCCAACCTGCACTG
TGGAGCTGGGGCTGCTAAGGAAGTAATTAAGGTACATGAAGTCATGGTGGGGCTCTGATCTGCTAAGGTGGTG
TCCTTATAGGGAGAGACCCAGAGAGCTTGTTCCCTCCCTCCCTGTGCATGCAAACAAGAGGGCATGGGAGCACA
CAGAGAGATGGCAGCCACCTACAAGCCAAGAGGAGAAGCCTCACAATCAAACCTCTCGCTGCTGGCGAGAGTCTTG
GACTCTGTCTTGGACTTCCAGCCTCCAGACTGTGAGAAACAAATTTCTGTTGTTTTCAGCTTCTCAGTCTCTGGTG
TTTTGTTATTGCAGCCTGAGAACACAGCTGTACGATTATTTGTCAAACAGAAAACACTGATACTTAACAATGCTA
ATGCAATTATTTATTTGCTTTTCAGTCTCTACAAAACGTTCTAAAACACTAATCTAAATATTAACAGTAAAATAT
TTGCATAACTAATGGAACTAAGAAATCATATGACCAATATTTCACTTATTGGTAATCTTACTCTACTGATTTCC
CCCCAGACTGTGATTTTTGAACCTCCTTGCCCTTCTCCTGTCTTTCTGTGTTTATTCATGGAATTCAGTTATCT
GGGCTTGAAATTGCAGGCTCTCCTAACTTAAGCAAAATCTGACAGATCAGCAAAATGAGATAAATGTTTCTTTTT
TCTTCTGACTGCATTAAATCAGATACAACCTCAGCATTAAAAAGCTATCTTTGTAAATGTTGTTACTAATAAATT
AGTCTTATAAAAAAAAAAAAAAAAAA

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FIGURE 1337

RTRGQVIRSNPSFNIPTGCLVFPEAEWSQGVQGLRIKKYLTVEQIMTCVADTCRRFFDRGYSPKDVAVLVSTA
KEVEHYKYELLKAMRKKRVVQLSDACDMLGDHIVLDSVRRFSGLERSIVFGIHPRTADPAILPNVLICLASRAKQ
HLYIFPWGGH

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FIGURE 1338

GGCAGGAATTCGGTAGAACTGGAGTGACCTGTGGAAGCTGCTTTAGAATCTAACCTGCTGTCTTCGTGCTCTGTG
TGAAGGGGAAGCTGGGGGGTTAGCATGAAGTCTGGCCTTGTGTGCATTGGAGCTTCCAAGGCACCTTGAAATCAT
TCCAGTATATTTGGGAAGAATTGAGTGAATGAGAATGCTCTTCCTTATTCTGGTAGATTTGACTTGTTTATAATT
CTGCACTTTAGAAGAAAAACAGTGTTAATCTGTAGTTGAAAGAAAGCTTAGTAGATGAGAGAGTTCTAGGCTACT
GTGGCTTTTTCCAGTAGATTTAGATGAGATTATGTGTTTTGAAATGTTTTGTGGGATCCCTTAGAAAGCATCACT
TCAGGGCAGAGACACTCAATATTGCCAGCCAGCTTGGGTTCTAAAGTGATTTAATCAAATTCATGCTCCTGATCT
TTTTTTTCCCCCTTCCTTTGGCTATGAAAACCCAAAGCCCGAGTGATTGTTTTCTCCTTGCTTTAAGCAGTGAA
GTTATCCTAATGCAAAAGAGCTTAGTAGAAAATGAGTGGTTTACCTTTTTTCTAAAAGTATATTTTCAAGTTTA
TTCTGGAATGTGATGTCTTGGTCCTCTTAAAAGCAGATCAGCCATGACTGAAACTCAAGGCTTAGCTGGTATCTA
TGTTGTGCTACATTAGGTGACTAGAAGCCACTTCTTAGTGTAATCAGCTCCTGTTTCCCTGTGAGCCTTAGTTAT
ATTTTAATTCAGTGGCTTTGAGTCAAGGCCGTTCTAATTGAGGGGACCCAGTGTGCTTCAGTGTTAAGAGTGGG
GCAATGAAGAGTGAACCCCAATGAAGAGTGATCCCAACTTTGGAACTATCTGGTCATTATGACCTTAAAAAGC
TGCCATGGTGGTCAAATGGCATGTGTTGCACAAAAATGACCGATGTGTTAACCAGCTTTGAAATGTGATGA
AGCCACCAACATAAGCACTTGCTAACAGAAATCAGTATTTCTTCTACTTAGAAGGCTTGGGGCCCAGGGTAATG
AGGCACCAGATGAAGATAAGATCTGCATCAAGGAATTAAATTTCCAGTTTGTCTTGGGGTCTTTCTGCTTATG
TTTTTTCCCCCCCCTCTGGTAATAGTCCTCTTCTGAGAATGAAAGGAGGCACAGAAGTTGCGAGAAAGACCCAGT
CCCCAGTCTTTGCCACCATTGCACCATGGTTGTCTCGGAGTCCCTTCACCTGACCTTTTTAGTCAGCTCAGATCT
TTTTGTAGTTTGAAGATAGACCTATTCAAGAGCTATCAGGGTTAAAAGCTGCACTGACCAAAGCTGTACTTTTAA
AACACAACCCCTGGGCTAGTGATGTCTCTACTTGCTCTATGAGCCTTTTGCCAGCCTCAGAATAGGCGAGGTAAC
CTTGAATTTCAAGGGCCCTGGAACTCTAGCTGAAACCTGCCTTTCCCTAATGCTCACACAAGCACCAGGTACCCTG
AGCTTATACTGAGTCCAGTGGTTTCTATTTATGTGTGTGTGTATGTGTGTGTGTTGAGTAACATGAAACTTGGCA
GTAGCAGAGAGCACTGAAGTTCACATGCAAGTTCTAATCTAAAGTTAAGCAGTCTCTTATTTGTTTCGGGACTCT
GATTTGACTCTTTTTCTGATGCTTTTCGGCATGTCTGCAGCCTGTTCTCCTAGCCTGCTGCTTGGAGTCAGGTTGA
GCATCAGTGAGATGAAGACAGTACCTTTTCTCTCACATTGGCAGAATAGCACGCACTAGATGCCTGACCTTGAG
CTCTAGTCTCCCCTTTAAATCTTACCTTGGCAGTAACACATTATTCCTCATTCAATAATTTCAATGCTGAACTG
AACTCTATTACTAATGCCTTCCAATCAGAGTTCCTGATGGGGATGCCTGTGGGATGGCCCACACCTGGGGGACCT
GGCAGATGGGGTGAGTTGGGTAAGGAAGATGATGCTTAGTTCCTGATAGATGCTACAGATGTAGTTTGGCATTTC
AGTTTTGTCCAGTTTGATTTTCACTGGGGTTTGTAGTCACAGCAAGCTGTGTATGAACTTGTGTTTTGTGGTGAC
ACATTAATAATCAAATTGCTAAAACCTGAATCTGCTTATTCTTCAGCTTCACCTCTGCACTAACCCCTTACCCT
TATGGTACGTCAGGATTTTAACTAGTACTGCTTTGTTGACTTTGGGAAATGGTGCCACTCAAAGCAACTTCCTA
ACTTGAGGAATAACTCCTTTGTAGTTTACTTTCTGGTACTGGTTGGTGCCTTGTATTGGGATACAGCTATATTCT
TAGCTCAAATGTCTCTTTTTGAGAGCAAAGTAGTTATCCAATGGTGAGACGAGACCCTGACGCTCATAGAGGCC
ATTCTTCCCTGGGTGTGCGACCAGGGCTCTGTGTCAGGGAAAACCTTCTGGGTGGACTTTGTAAGAATCCAGTTT
CCAAGGTTAGATTCACATCCTTAATCTTGAGAGACTAGAATTTACAGCTCGCTTTGGAACATATTCCAATTCA
ACCAGTTAAAATCAGAGGACCAAGTCGTGGGGGAGGGGGCGGTGTTGAGGAGAGGTATTTTTAAAGATCTGGCA
ACTTTTCAGGATTATTTGTGGAGAACTCTAAGGTTAAGATCAGGAAATAAAAGACTGTGTGTGTGGGTGTGTGCG
TGTGTGTGTTCAAGTGCCTAAATCTTGTTTACCTATCACTTTAAAAAAATAATTGAAGTGTAAGCTAAATAAAAT
GCTTGGAGTTTTGCCTGGGCTAGTGAGAGTTGGTGCAAACTCTTGTTGTGTGTGTTTGCATAGGAAGGTGAGATGACC
ATCTACTAAAGAGGAAGTAGCTAAATACAGATCTGTGGGTGTTTTTAAAAAACTCAACCTATCTGGTGTTTTAT
TTTAATGGATAAAAATGTAATTTTTCTAAGGTAGCAACTTATTTCCAAATTAATATAGATGAAAAATAGATACCA
ATTAGACTAAATTGAAAGCTTTTTGTTCTATATTTGCATAGCCTTTGAAATATTTCTTAGTGCTAGGAGGTCTG
GGGATTCCTCTTTCTGTGGTGGTCACTAACCTTACTTGATGCAGATAAAATCACTTGTCAATGCAAAATGTGTTAG
AACTTGATAAAGCTTTGAGTTTGAGAAATAAAGGTATATTTAAATTTAAATAAAACTTGTCAATTTATGCTCATT
G

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FIGURE 1339

GRNFGRTGVTCGTALESNLLSSCSV

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FIGURE 1340

CCCACGCGTCCGCCGGGCGCGTTCCGTTGGCGGCGGATTCTGAACGTTCCGACTGAGGTTTTTCTGCCTGAAGAAG
CGTCATACGGACCGGATTGTTTTCGCTGGCCAGTGTCGCCGAGCTTGTGTGCGATACAGAGAGCACCTCGGAA
GCTGAGGCAGCTGGTACTTGACAGAGAGGATGGCGCTGTCGACCATAGTCTCCAGAGGAAGCAGATAAAGCGGA
AGGCTCCCCGTGGCTTTCTAAAGCGAGTCTTCAAGCGAAAGAAGCCTCAACTTCGTCTGGAGAAAAGTGGTGACT
TATTGGTCCATCTGAAGTGTCTTACTGTTTGTTTCATCGATTAGCAGAAGAGTCCAGGACAAACGCTTGTGCGAGTA
AATGTAGAGTCATTAACAAGGAGCATGTACTGGCCGCAGCAAAGGTAATTCTAAAGAAGAGCAGAGGTTAGAAGT
CAAAGAACATATTCTTGAAAGTTATGATGCATTCTTTTGGGTGGTAACAGATCATAAAGACATTTTTTACACATC
AGTTAATATGGGATTATTAAATATTGGCTATAAGTGAAAAAAA

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FIGURE 1341

MALSTIVSQRKQIKRKAPRGFLKRVFKRKKPQLRLEKSGDLLVHLNCLLFVHRLAEESRTNACASKCRVINKEHV
LAAAKVILKKS RG

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FIGURE 1342A

GTGGGCCGCGCGGTGGCGGAGACTGTGGCTTTAAGAGCGTGCCGGGAGCCCCAGCCCCAGCCGGGCGCGCTTC
GCCGCTGCGCACCCAGCGGAGCCAAGCCCCACGCTGGCCGGACAGGGCCGCCTGTGCGCGGGCTGCTGAGAACT
AGCCCTAGACCTCTGCGTGAGGGTTCTTCTGCCGAAGACATCACCAGTGTGTGGAGCCTGCCACACCCACCCGCT
GCCAAACCACGGCCTTTACCTGTGTCTTCCGGTGTTTTCCCGTGCGACCCATCCTGTGGGAGTGCCTCGTGGGCTG
CCCCAGAGTTACCCCCACACTCAGCAGCACCAATGGTGAAGATGACAAGATCGAAGACTTTCAGGCATATCTGC
CCTCCTGCCACCGGACCTACAGCTGCATTCACTGCAGAGCTCACTTGCCAATCATGATGAACATAATTTCCAAGT
CATTCCAAGGAAGTCAAGGACGAGCATACCTCTTTAACTCAGTAGTTAATGTGGGCTGTGGGCCTGCAGAAGAGC
GAGTGTGTGCTAACAGGACTGCATGCAGTCGAGACATTTACTGTGAAAACCTGCAAACCACTCTGGGCTGGAAAT
ACGAACATGCTTTTGAAGCAGCCAGAAATATAAAGAAGGCAAATACATCATTGAAC TAGCACACATGATCAAGG
ACAATGGCTGGGACTGATTGGACAGCATCTACCCAACCCAGTGTCCACGTGAACGCCATTCAACCGAACATTCTT
CCCAAGCGTGAGAGAGTGACTGACACTTGGTTCCATCCATTTAGGGGGCCTTGCCATCCGGGGCATCCTCCCAACC
TGACGCCATCTTTCTGGTGACCGGCCTCTAAATCGCTGTCTCTCTGTCTCTTTGCTTTGTATCTGTTTGTGAGTT
GATCCTGGCTTCTCTCTCTGTCTTAGTTTTGGCTGAAAACAAAACAACAAAGGAACAGATCCTTGACCGCATGG
CGGCAGCCACCTTGGAAGGGCCCCAGGGCCCATGCGAGAGCTGCCTGATGGCCTCTTGTGAGGAGAGCAGTGG
CACGGGGGCGTGAGGAAGAGGGAAAGGGGAAACTCTAAGGGTCTGGCGCGGGGAAGGGGTGGAAGGGTGGAGGT
AGGAACAAAATTGCGCCGCTCCTGGAGACCTGATAACTTAGGCTTGAATAATTGACTTGTCTAAAAGGACAAAG
AGAAAAAATAACCTCATGACTGCATTCTCTCTGACTAGAAGCTTCTGTTCTGACACCAATGTGCCAGGTT
AGCAATGAGCACAAGATGTGGCCCTGATTCTAGTTGGTGGGGCAAGGGCCTGGTTCTCTGGGCTGAGTGGGGG
AGTGTCTTGGCAGCAGCGAGTGACCTGGGCAGTGGCCAGGTGGGTGCGATGACTCTGATGCCTCACTCAGTCTCT
GGGCAATCATCATCTTTGCCTCTAGCCACCGTAGATAAGGTGTGAAGGGACTGCTGTTTGCAATGGGCTTACCAT
CCAAATATCCCAAAGGCTTTGACCAGCAACCAAGTAAATCAGTAATTGAGGAGAGCAGGGCACAAAGGGGCTGC
AGTTTGGGAGCTCCTGAAGAAATGGCTCAGATATTGAGTCAGAGAAATAAAAAGTAGGATCAGTTAGCAATTCTA
ACTGCCCTTCTTCTGACCCCTCATAAGAGGAGTGTGGTGAGGGAGGGGACTGGGTAGGGGTCTATCCAGGAGGA
GGGGTTTACATTGGAACCAGTTTCAAGTTTCGGTGATCTTTTCTCTCGGTTTTACAGTGGCTTCCGTGGGATCGT
CAATTTCTTGTTCTTAGAGTTTCGGGTGTTTTTCTCCAGTCTTGTTACTGTAGACTGTAGAAAGCACGGGCCCCA
GGCTCTGAGCTTAGTAATAACCTGGCTGGTAGATTCTCATGCCCTAATTGTCCACTTAGGCCTGAATGTCTT
GCATGGAGAGAAATCTCCTGTGAGTGTGGTCCAGCAGCAGGGAGGAGTTCTGCCAAATTCGATATCACCCCTT
CCCCATCCAAACATCCTTCGATTAGGGAAGTGAGAGCACATCCCTGTAAGGCCATAAGAGAAAGAGGAGTTT
GTTACATTTAATCAACACTGTGAAGTCTGTTCTACAGCAATTCAGCCATTACACAGTATATGACTGAACTCATT
TAACTGGGTAAATTTCAATTTCTTAGACTGAATATATTATTGTTAAGATACGTGTGCGTGTTAGGTAATTTCTCAGC
ATCTCTCCAAGTAGGCCGACCTTCTCGGAAAATTCACCCATAAAGTCTCACAAAAGAATGAGTTTATGGGGAGA
TTCTGTAAAGTGATGAACTGAGATGAAAGCAGCCAACAGCCAGGAGCTTTTCAAGATAGCGTCTGCAGCAGAAC
CAGTTTCCATTGAGAGCGCGTCTTGGTGGAATGCTTTTTTGTGTGTCTCCACGCGCTGATGGTGGAATGGGAG
CCCCAAGACGTGTGGGCTTAGAAATCAACTTTTGTTCCTCAAGGCTTCTGTCCAGATCTTCCAGTGCTTTTCA
AGCCCTGGGAGATCAAGTTGTTCTCCCCACTTTACTGCAAGGTAGACTGAAGTTTCAAGAAATACTGAATTTCT
GCTCCCAGAAAGATAGTTTCTCTGGCTCACAGGCCCAAGTTCTCAATGAAATCGTTTTTTAACTTTTACATTTCT
AAGCTGGCTTCCCGTGACAGAAGCCATGGATTTCCCTCTCTCCCTTCCCCCTCCTCAAGGAAATAGTCTTCT
TTATGGATTTTCAATGGACTCTTTCCTCAGCGATTGTCTGGCTGTTATTGATAGTCTTCCCATAGAAAATG
GGGTTAAACATGGGGTAGGTATTTTGTCTTTCAAACACAAATGGAATGTGGTGACATAAACTAGACATGGGGTG
CCCTCAAGTTTCCAAGGGGACCAATGTGCCACTGTTCTTCTTGGGGATGAGGCCTTGTAGTGTGGATGGATCA
GAGCAGGCTCCAGTCAGACCCTGGTTCTGAATGTTTTTTTTTTCGGTGACTATCCAGTGAGCCTTCACTGGGTGC
AAGGCGCCATACTTGCTGTGAGAGAGCTGAGTAGAGTGTGGTTTTTCCATAACTACAGGGGGAAAAAAGTCAT
TAGGCTTTCCCTTTGTGTGAGTGAACCAAAAGTGCTTCTTACAACGTTTCGCTCTGTTTATGGGTTGTCTATCTA
ACATTGAGCAGCATTTGAGAGGGCCACAGCTGAGCTATGGAGATGCTAAATTAACCTATGGCCTCAGTCAGTTTCA
TCTTTAATTTCTCACCAATTTATTGACTTAGAGCATAACCAAGACCTCATTATTACCCAGGTGGGTTGGG
GGAATTGGAGTTTGTGGTGAAGTTTGGGGGCGGGGTGTGGGGAGTAGAGACAGGGTAAGGGGACGTGAGAAAGG
AAAAGGCATGAAGTTCTATACCTCAGCCAGCAGCTGCCTTCGTTTGGAACTGAAGTCCAGCCAGCAGACTCTCTA
GCTCCATCTCCCTGTGCCACCCTAGGTCATATGACCTTGCCACCTTGGAGTAGACCCAGACCCCTCGGGACCC

FIGURE 1342B

GGGACATTAGTCTCAGGCTGCTGATGGATTGATTTGACATGAACCAAACACAGCCAAACTCGATACCCACAAGCT
GTCAGCTGAACCTGACTGAGTGTTCTTCCTGAGTTCACGAGGATAGGCTAGAGTGCATTTTTACTGGTGGATCAG
TGTGTGCGAAAGAGATGACCCCTTTATAAAGAGATTTTCAAGTGGATATATATAAAAGAAACAGTTGCTTGTA
TATACTTTTGTAATAATATTTAATTTTTTAAATAATATATTTGGTGCTGTTTTCTCAGATCCCCTGAGAGCACT
TTTTATTTTCTTTTTAAATCTATGGTTTCCTTTGCATTTCTTGAAGTATATTTTAAGGGAAACAGTGATCACCA
ATACATGTTTTCAGTTTTTTTTTTTTAAGGTCTCTATCACTTAATCTGGATCAAGGCTTTGAAGCAATGCCTCT
CIGCATTTTTTCCCCAGTGGAACAGACTCTGCAGTACATTAATCAGGTTGAGAATTGAAATATTTTCTTGCA
GTATTGGCTAGAAAAGAAAATAAATAAAACCAAGTTAATTTAGTAGTAACAACTTACAGTGATTCTTCCTGTTGG
AAGAATTTGCAACAAATCAGAATCACGTTTTTAGTTGTGCGTGTGCGCGCACACGTGTGTAAAAAGCACTTTTGA
TTGTGCTCCTGTTTTCTCGAGTGGGGACACTTTAACTACAGTTTACACCTCGGGCGCATAAAGTTTTTCTTCTC
TTTCTCTCTGGTTGTTTCTGTTTCTGAGTGGACCAACAGCAGAACCCACGAGGATTTGTTTTGAGTATGGAGCTG
TTGCGGGTTTGCTCCTTTTTCTTGCTTTGCGTGCTCAGTTTTTACAGACTGTAAAGGAGATGTGTTGTTTGTGAA
GATGGAGCAGAGTCAAATCTGTGCTTCTAACTGAGATGAGAGTGTATTAATCACGTATCGCAGGGCTCCAGCTGT
TTTGAAGCCACATCATGTTAAACATTAACGGTTTGGATTAAAGAACATTAATATTATAATACATATCTTA
GTGGTAAACAGCTTTTTTTTTTTAAGGTCAGATTGCCTCAGGTTTAGAAAGAGGCTGAGAAATCAAATCTTGAAC
ACAATCAACTTACATATTTTAAAGGAATCTGCCTCAAATGAGAAAATATGCTAGTTATCTAGATAGAGGAAAGAG
ATATTTACTTTTTTAAAAATTAATAAGTTATGAAATCTGGCAGAAAAGGTAAAGCCTAGAAGAACTATGAAAG
CTATTCTCATGTTACCAAATCTATCTGCGCATATGTTTTTGTATAACATTTCCGGTGACAGTGGGAGTCGGTTCC
CTTTCCCAACCTGCAGAGACTATCTTCCAATACAGAATCTGTCTATTTATGCTTGTGTTTACAACTGTATTTGT
TGGGTTTGGGTTTTTGTCTTTGGTGGCATTTTTCAGGTCACCTTGCTTCTATAACAAAGGTAATTGTTTTCA
AATAATTTGTCTTCACCTTTTCTGTATTTGTACATAGTGATTCAGTATTAGAGAAAAGTGCATTGTTTCTGTCA
TATTTCCAATCTGTGTGGTGCTCATTTGAGAAAATAAAAGTTTTTCAAATATTACAAAAAATCTATGTGGGGTG
CGGAGAAAGAGGTAATGAAATGGCAGG

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FIGURE 1343

VGRGGGGDCGFKSVPGARAPAGPRFAAAHPSGAKPHAGRTGPPVAGLLRTSPRPLREGSSAEDITSVWSLPHPPA
AKPRPLPVSSGVSRATHFVGVPRLPQSSPHTQQHQW

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FIGURE 1344A

AAAAGAGACATTGTAATGAGGCACACCACTAAAGTGAGCATGCCCAATTAAAACCAGTGTAATATAGGATAAGAA
AATCTGATTTTTCAAAAAAGATACTCTACATAAAGAATCCTTCATATAAAAAGTCTTTCTTGTAGTACATTTAA
AGTTTTAATTCACATCATGTATAACTGAGAGTTCCTTTGAGCCCTTTTAGGCAGGGAGGCATGTCTGTCATCTAG
CGTGTGGCCCAGTAAGTGATTATTACATTGGAATCAGTTTTTCAGTCTTTTAAAAATAAATTCTATGCCATAAGAA
TAAAAGATAAAGAGCAAAATTAATGTAACTATTTTTAGCTTATTATAACTATGTCAACAAGTGTTTATTAATAC
CTATTATGGGAAAGTCACTGTGGTTGGCATTGAAAATTACATCATCTTTAAAGCAGTATTTGTCCCCAGATGGAC
TCATCACTAGCAAAGACTAGGTTTCATTGGAAGGCATAGGGTGAGAGAATGGGAAGATGGAGTGRAGGCGGGTGT
TAAAGTGCTGTCACTGAGTGATTTTGTCTACTTGAATAATGGTCCATGTTTGGGGGCATATTGTGTTTCATAAGA
AGTGAAAGGTATTTGCAAAGTAAGCTACAAATGACCCATAAATCTGTTAACAACAGTCCTTAATATGCAAAGATG
AAAACCAAGCATTACTGCTACCCAAAGGGAAGTGGTGCTTGGTGATGTGCAGATGGGGCTGTTGGTTAAGAGAGC
TATTACAGTTTTTCTCTCTTAGGTTTCATAGGAGGTAGTTACTGAGATGAGATTGTTTTATCTTTTTGAATACAG
ATCTCTTGTCTTGAGTTAGTTCTGAGGATGGGAGTAATAAAGGAGTTTTTGTTTTTTGTGTTGTTGTTGTTT
TGGCTCCTTAGTAATACTCCTCTGACATTTATTTCTATTATTCTTCAAAGAAAGGAAACCAACTGAAATGTTTGC
TTTAACAAACATTTTAATAAGTTCTCTGGGTTTTTTTTTCCCTTTTAAAAAAATTAGCATATACCATAGCAATA
AAAGAACTAATGTAACTATTGTATGCTACAACCTAAGTGATTTTTCTAAAGAAGCACAAATGTCATTGAAAGTAT
TATTGAAAAGGATCATAGTCACATTGAATTTGTGAAGGCCAAAGAAATTGAAGGGAGTGATATTTTCATTTTATG
ATATTCACATTAGTAAATTTTGTGTACAAGAATACCAGGCAGAGTGTTTTACCCATGGAAACAGGTTTCAGATTA
CTTTGTTTTTACTGTTAGAGTCTCAAGTTTAGAAATGCTAACACTTAAATCAGTTTTTTTTCTCACTATACTTGAA
GATTGTTAATATTTTGATATCTTCCTAGCTTGATGAATTTAAACATATCTTCAGATCTGTGACAGTGACAGCCAA
TAGGACTGATAATATTAGCTTCAAACCAATAATATCCAGGGTTAAAAATAAAATCATAGTGAAAGTACGATTGTA
AAATTATGCTATATTAACTTTTAAGTCTGTAATAACTTGACATCAAAATGTTATGTAATTACCATAAATAATGGC
TAGCGAGAACATCTTTGGAAATTCTCAAATTACCTTTCTTACTACACTGTTTGCAGAATGAATGTAGAAATGATC
CTGTTAGCTTTCTGAATGTTCTGTGGGTTGAATGTGTTTTTGTCTTAAATAAAGCTTTTGGTATTTGTTTAAATTA
CACTTCTTGAGAAGTGGAATTTTAGGATCATCTTTGCTTTGTTTCAGTTTTGTGATTTTTGAAATGAATGTTTA
GTTTACTGAGCCAGTTGGTCATTTCTTCCTCATGTCTGTTAAGTCCAGTGAGTAAGCCTGAAGTGTGAATAAATTA
CCAAAACTTGCTTAGAATTTTCAATTTGAAGCAATTTGCTAATATTTGAAGTGTATACACATTTGTAGTTATGTT
AAAAATTGTATTGTACTAAGAATGTAATCAATGTCTACTTTAGTTGTAAACATTTCTGATGTCAAACCTTTATTC
ATTACTGTTGATTTTAAAGAATAAGAAATCACTGCCTAAATATTACCAAAGCCACTGTCTCTACCCGAAGCTTCCC
AGTTTGGGAAAGAATCGTTAGATAAAACAAAGGCTCTGCCCTTTCTGATACCAAACCTCCACAGATACTTTCTCAC
ATCTTTTAAACATTTTGCAATAACATATTGTTTATAGGAAGTTTACAGGGTATGCAATGATTAAACCTTTTAAG
TGAATTGATAGTTGCAAAAGAAAGGATAATATTTAAGGTCAGTGAGTAGCAAGACAATCTAAAGTTTCTGTAATA
TCTGGCTCTCTGTTAATTATAGAGCAAAGTTTCCCTTACAGAATCCTTTTATGAACAGCAAGCTAGAGTCTATCC
CTAGTGTTTATAGCACCTGCTGCGTTTTTCAGGAGACAGTTAGGCCAGGGTGATTGTAATGGATAGATGTGCTGT
TTTGCTGCTTGTAAGATTCAGCCCAGTCTTTGGTCT
CTTCTGCACCAGAGCCTAAGGCTGCGCCACCAAGATGCGTCATTTTTTCCAGAGGCTTCTTTTTTTTTTTTTTG
AGATGGAGTTTTGCTCTGTTGCCCAGGCTGGCATGCAGTGCTGCAATCTTGGCTGACTGCAACTTCCACCTCCCG
TGTTACACGAGTCTTTTGCTCAGCCTCTGGATTAGCTGGGATTACAGGCACGTGCCACCATGCCTAGCTAATT
TTTGTGTTTTTAGTAGAGACGGGGTTTTACCATTGTTGGCCAGGCTAGTCTCAAACCTCTGACCTTAAGTGATCTG
CCCGCCTTGCGCTCCCAAAGTGCTGGGATTACAGGCATGAGTCACCGTGTCTGCCAGACATATCAAATTTGAC
AGGTATTGTATACCTTTTGATCTTTAGGAATTAATTTTTGCTCTGTCACTCAGCTTTGTATATTTTGAAATGG
AGATAAGTATAGGGAGGTCTTGAAGGAAAATTGCCAGAATCCCAAACCATGTAACACTCATTGAGAATTCCAG
ATCCATTATATCTAAAGGGCAAGTGAAGGAAACAGTATTGTGAACCTGGGTATAACTCCTTGGTTCTTAACTAGTA
CATTCTTAATCTGTGAGACCCAAAGGTTGATAAACAATAATTTAAGATTGTACAGTACTCTAAACGTCTGCAAAG
GTCTAGATGTTATCAGTATCACTAGTTTTTATTTCTGCCAGTAGTCCCTTTTAGGTTACATTGTTGTCTCTTT
CCAGTGTGGCATCTGTCAATTGGTTTTTCACTATGGCAAGTTCATTAAAAAGCTTGCTCCATTGTTATCTTCAAGT
AATGCCATAAGGAGATGGAAGATATCTGAGACAATTAAGGCTTTAGCTTCTAGGCAAGAGAAATAACGTTGCAT
TAAATTTCAAGTTTCTTTCTGCTAGACTTGAATGTCTAGCCACTCTAATTTATGGGGGCTTTTGGTTTTTTTCC
TATTGTACTTTGTATGTAGAAATTGTTTTGAAATATCAAGCATATTACTTTGAATTTGAACCTTTTCTTAATTTT

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FIGURE 1344B

GTATTTATCCTTTGAATAAAATGTAAATCAAAAAAAAAAAAAAAAAA

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FIGURE 1345

MCLATLIYGGFWFFPIVLCM

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FIGURE 1347

LVLFGIFFFSFLKKMFSGNMNKHTANYSGAGKAQELATSQLHSWDGKPCCELLRLFTYFTY

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FIGURE 1348

ACTCGGCCGGGCAGCCGCGGGCCGAGCGCAGCCGCCTCCGCCACCGATGCGCCTGGTGGCCAGACTCCAAGTGGG
ACCGGCGGACACGCAGCCTCGCGTGT CAGGGGAAGCTGATGGAGAATCGAGCTCTGGATCCAGGGACTCGGGACT
CCTATGGTGCCACCAGCCACCTCCCCAACAAGGGGGCCCTGGCGAAGGTCAAGAACAACCTCAAAGACTTGATGT
CCAAACTGACGGAGGGCCAGTATGTGCTGTGCCGGTGGACAGATGGCCTGTACTACCTCGGGAAGATCAAGAGGG
TCAGCAGCTCTAAGCAAAGCTGCCTCGTGACTTTTGAAGATAATTCCAAATACTGGGTCCTATGGAAGGACATAC
AGCATGCCGGTGTTCAGGAGAGGAGCCCAAGTGCAACATCTGCCTAGGGAAGACATCAGGGCCGCTGAATGAGA
TCCTCATCTGCGGGAAGTGTGGCCTGGGTTACCACCAGCAGTGCCACATCCCCATAGCGGGCAGTGCTGACCAGC
CCCTGCTCACACCTTGGTTCTGCCGACGCTGCATCTTCGCACTGGCTGTGCGGGTGAGCCTTCCATCCTCCCCAG
TCCCTGCCTCTCCTGCCTCCTCCAGTGGGGCAGACCAGAGACTCCCATCACAGAGTCTGAGCTCCAAGCAGAAGG
GCCACACCTGGGCTTTGGAGACAGATAGCGCCTCTGCCACTGTCTTGCCAGGATTTGTAGACTCCCTGAGCCT
CAGTTTCCTCAACTGTAAAGTGGAGATGGGTTTGGTGTGCGGAATAACGGGACCAATAAATGATGCTTTACTATT
AAAAAAGAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 1349

MENRALDPGTRDSYGATSHLPNKGALAKVKNFCDLMSKLTGQYVLCRWDGLYYLGKIKRVSSSKQSCLVTFE
DNSKYWVLWKDIQHAGVPGEEPKNICLGKTSGLNEILICGKCGLGYHQQCHIPAGSADQPLLPWFRCRCIF
ALAVRVSLPSSPVPASPASSSGADQRLPSQSLSSKQKGHTWALETDSASATVLGQDL

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FIGURE 1350

GCCGAAGCCGCCGTCTCTCCGCGTGGGCTTCTCTAATTCCATTGTTTTTTTTTAGATTCTCTCGGGCCTAG
CCGTCTTTGGAACCCGATATTCGGGCTGGGCGGTTCCGCGGCCTGGGCCTAGGGGCTTAACAGTAGCAACAGATG
CGTCGGCGGGCGGCAGTAGCTGTTAGTTGCAGCAGCAATCTCTTCCCGAACACGAGCACCACAGGCGCCCGAAGGC
CGGAACAGGCGTTTAGAGAAAATGGCAGACGATATTGATATTGAAGCAATGCTTGAGGCTCCTTACAAGAAGGTG
AGAAAAACATGTCGGTGAGGTTTATATATTTCTTAATTTAGCATTATTCACGAACTACTGCTGAAATGTAAAC
TAACCTCCCCGAGCCCTCTTGATTTATCTTATCAGAGATGCATTACGTGTAACCTACAAAAGTAAATATATGCT
ATTGATGTAATAATATTGTGCAGTAGTTTCACTTCAGCGTGATGAATAAATGCCCATCTATCTCTCTTTGTAGAC
TTGCCTAACGATATCTCACCTCTACTCCCATGAATTCACCTTTGATTCCAGTGTGAACGTCAATCATAAGGTAG
TAATTGAGTGACTTATCGCTGTACCGTGGTCCCCTAGGTAAAATGACTCAACTAAGAATTACCACCTCCAGTTTG
GTATAGCAAAAAGGTGAATGTAGTGGTTTGGGAAAAAGCAGGGGTCCAAGAATAACAAAGCATGACCAGTCTGTG
GCAAGTTAAATCTTCTAATAGTCTTATAAGAAGAAATGGGTGAGATTTTAAATTTATGTATCTATGTAAGACTG
GTGATAGTAAATCTTAAAACAGTCCAGTGGCAATCTGCTGCTCAGTTAATAATTACTAAAATTCTTGGATCCCTG
AATAGAAATTAAAAAATAACAAGAGGCAGTAGAGTCAATACAAGCTTAATACAAGCTTAGAGTAAATACAA
GCTTAGAGTCACTTGATGACTGTTTTACT

PKPPSCSPAWASLIPLFFLD
SLGPSRPWNPIFGLGGSAAWA

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FIGURE 1351

PKPPSCSPAWASLIPLFFLD
SLGPSRPWNPIFGLGGSAAWA

FIGURE 1352A

TTAGAGGTCCTTTCTGCTTTATAACATTAGGTTCTTCTTGAGGCCCTTAAGCATTGCTAAACAGGTTCAAGTAA
AGTTTAGTAAAGTTTCATTACTGCCATTGATTCAATTATCAAACCTGCTTTTGTACATATAAAGAATTCCTTCAGAT
GCATGGTTTCTATTAACAAGATCCAATGCCTTCCTTTTATTTCCCTTCAGTTCAACATCTAATATATAAAGATT
GCTCTGACTACTACGCAATAGGCAAAAGAAGCAGTGAGACCTACAGAGTTACACCTGATCCCAAAAATAGTAGCT
TTGAAGTTTACTGTGACATGGAGACCATGGGGGAGGCTGGACAGTGCTGCAGGCACGTCTCGATGGGAGCACCA
ACTTCACCAGAACATGGCAAGACTACAAAGCAGGCTTTGGAAACCTCAGAAGGGAATTTTGGCTGGGGAACGATA
AAATTCATCTTCTGACCAAGAGTAAGGAAATGATTCTGAGAATAGATCTTGAAGACTTTAATGGTGTGCAACTAT
ATGCCTTGATGATCAGTTTTATGTGGCTAATGAGTTTCTCAAATATCGTTTACACGTTGGTAACTATAATGGCA
CAGCTGGAGATGCATTACGTTTCAACAAACATTACAACCACGATCTGAAGTTTTTACCACCTCCAGATAAAGACA
ATGATCGATATCCTTCTGGGAAGTGTGGGCTGTACTACAGTTTCAGGCTGGTGGTTTGATGCATGCTTTCTGCAA
ACTTAAATGGCAAATATTATCACCAAAAATACAGAGGTGTCCGTAATGGGATTTTCTGGGGTACCTGGCCTGGTG
TAAGTGAGGCACACCCTGGTGGCTACAAGTCTCCTTCAAAGAGGCTAAGATGATGATCAGACCCAAGCACTTTA
AGCCATAAATCACTCTGTTTCATTCCTCCAGGTATTCGTTATCTAATAGGGCAATTAATTCCTTCAGCACTTTAGA
ATATGCCTTGTTTCATATTTTTCATAGCTAAAAAATGATGTCTGACGGCTAGGTTCTTATGCTACACAGCATTG
AAATAAAGCTGAAAAACAATGCATTTTAAAGGAGTCCTTTGTTGTTATGCTGTTATCCAATGAACACTTGCAAGC
AATTAGCAATATTGAGAATTATACATTAGATTTACAATTCCTTTAATTTCTATTGAACTTTTTCTATTGCTTGT
ATTACTTGCTGTATTTAAAAAATAATTGTTGGCTGGGTGTGGTAGCTCACGCCTGTAATCCCAGCACTTTGGAAT
GTCAAGGCAGGCAGATCACTTGAGGTGAGGAGTTTGAGACCAGCCTGGCCAAACATGTGAAACGCTGTCTCTATT
AAAAATACAAAAATTAGCCGGGCATGGTGGTACATGCCTGTAATCCTAGCTACTTGGGAGGCTGAGGCAGGAGAA
TCGCTTGAACCTGAGAGGAAGAGGTTGCAGTGAGCCAAGACTGAGCCACTGCACTCCAGCATGGGTGACAGAGAA
AACTCTGTCTCAAAACAAAAAATAATAAAATTTATTTCAGTAGGCTGGATTCTACACAAAGTAATCTGTATTTGGG
CCATGATTTAAGCACATCTGAAGGTATATCACTCTTTTCAGGCTATAATTATTTGGGTAATCTTCATTCTGAGAC
AACTTAATCTATATCATTTACTTTGCAACAGAACAAACCTACAGCATTTTGGTTCCCAGACTAAGGGAATAAT
ATCTATATAATTAACTTGTTTCATTTATCATTTCATGAAATATAAAATACTTGTCATTTAAACCGTTTAAAAATGT
GGTAGCATAATGTCACCCCAAAAAGCATTGAGAAAGCAATGTAAGTGTGAAGACCAGGGTTTAAAGGTAATTCAT
TTATAGTTTATAACTCCTTAGATGTTTGATGTTGAAAACCTGCTTTAACATGAAAATTATCTTCCTCTGCTCTGTG
TGAACAATAGCTTTTAATTTAAGATTGCTCACTACTGTACTAGACTACTGGTAGGTTTTTTTTGGGGGGGGTGGGT
AGGGATATGTGGGTAATGAAGCATTTACTTACAGGCTATCATACTCTGAGGCCAATTTTATCTCCAAGCAATAA
TATCATTAAAGTGATTCATTCATAGAAGGCTAAGTTTCTCTAGGACAGATAGAAAACATGAATTTTGAAATATAT
AGAACAGTAGTTAAATACTATATATTTCAACCCTGGCTGGTAGATTGCTTATTTTACTATCAGAACTAAAAGA
TAGATTTTTACCCAAACAGAAGTATCTGTAATTTTTATAATTTCATCAATTCGGAATGCTATATATAATATTTAA
AAGACTTTTTAAATGTGTTTAAATTCATCATCGTAAAAAGGGATCATCTCAGAGAGAACAGCAGTATTCTGCGTA
TTTTTAAAAATGCTCTAGAGTAACATTTGAAGTAATTCAGTGTAGTGATGCCAGTCCTAGAAATAATTTTTTTA
ATTTCTGGTGTCTGTTTCTAATACACTAACCAAGTTTTCAAATATATTTACAAAGATGCATCTTTACCCATTAT
TTTAAATGATTAAGGAGGATAGTTGCTTCAGGTAACAAGCTAATTTTCAAATATTAGGCCCTTACAGAACTAT
TTAGTCAAAAAGTAAGATATTCCTTTAAATATATAACCCAAAGCTTTCAGTTAAACATGATATATCACAAATAC
TATTAATATGTTAAAGAGAAATGCAATAGCATTAAATGATGACCAAAATGTAAATATTGTAGATTTCAAAGC
TGTGTCTCTATTAGGTGGGATACCAATGTAAATGATGTAAGTACGTTGTTTTTACTTTTTACTTTTTAAAAA
AGACTAAAAACGTTTTGATATTATACAATGTATTTGTTTCAGATAAGGTCATTGTCAATTTAGTATATATAATTA
TATATGTACAAGTTAAGTAAATTCCTGTGAGTAAAAATGGACTTATCACAAAACATAGTTCTAAAGAAAGGTAT
ATGCTCATATACACGGTGTCCATTAATTTAATGGGAAGTAGGTATAACTTCAGGAGAATTTGGCAAATAATTCAT
TAATCCATGTAAATATTCAAAGCTTGTTCTATCCACATTATTTCAAGGGATCAGTTTATTTTTTATTATACCTT
CACAGCACTTTTCTAGTAAATCTGTAAACACAGAAATTCATTTTGGAAATCATTTCATGTTACCAATAATTTCTAG
ACTTTTATAACATTTAACATGTTGATGGAAATAGATTACATCTGCTAGAACCTTTTGCCTTAACTATTACCAAT
ATATGCTAATATTCTAATAATATGGATTGACTGTTTACAAACATTAGAATCTTGTCTTGGTTCCATTTTGATGGCT
AATATTTGTTATCTTAATTAAGACTATTTCTGAGGTGATGATTACTTGAAAATATTGACTAAAACCTGGGTCTTA
GAAATTCAGGTGGAGCTGATTTACCTATGACTGAGGGGAAAAAATAATCAAATTTTACTGATAATAGTAATGCT
CCAAATGAATTAATGACACATCTGTTCAATAAATAAAGAGCTTAAATATACAAAACATAAGAAATCTGGGCAACA

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FIGURE 1352B

AAACTTGTGGTCTTTACTTTTGAATAGCTACCCAAGAAAAGGTTTTAAAGGTAAAAGTTATGAGTAATGTCATCA
CAATAAGCTCTTGTTTAAAATTCTTTTCTTTTATGTATAATTAGGTTTATGTTTCATGTCTTTTTTAAAACCTTAT
AAAAGATTTAATTATCACATCTATTCTTCAATGTGGAAATATTAAATATTGTTGGTTGTAAAATAATATTTATGT
ACTTACTTGTGTCTGAAAAGTTGTAAAATGCTTACCTCAGCTATACAATATCTGTGACTCTGAAGACTTTAATGA
GTACTATTTTATTAAACAAGAAGTCAGAGGCAAATAGAGGAACACCATTATCTTACTTCCCTCTAGAATACTGTTG
AAACATTTGAAATACAAAAGTTTCAGTTTCATTTTGTGGCATTCAACTTCCTCTCCTCTTTTTCCGTTATTAGTG
TTGCTGCTCTGGTTAGCC

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FIGURE 1353

GCTGTGAGTTGGCGTGCTAGTGGG**ATGC**CAGATGAGGAAGAAGACCCACGTTTGAGGAAGAAAATGAAGAAATT
GGAGGAGGTGCAGAAGGTGGACAGGGTAAAAGAAAGAGACTTTTTCTAAAGAATTGCGATGTATGATGTATGGC
TTTGGGGATGACCAGAATCCTTATACTGAGTCAGTGGATATTCTTGAAGATCTTGTCATAGAGTTTATCACTGAA
ATGACTCACAAGGCAATGTCAATTGGAAGACAAGGTCGAGTACAAGTTGAAGATATCGTCTTCTTGATTGAAAG
GACCCAAGGAAGTTTGCCAGGGTTAAAGACTTGCTTACTATGAATGAAGAATTGAAACGAGCTAGAAAAGCATT
GATGAAGCAAATTATGGATCT**TGAC**ACTTTTTGTAGTTTCCGAAAATTACCATCTGGGGAAACCATATATAATAA
TTGTATATTTCTAAAGTAAGATTCTGATATCTAGCCGAGATCGCACCCTGCACTCCAGCCTGGGCGACAGAGC
GAGACTCCGTCTCAAAAAAAAAAAGAAAGCAAGTTTACATGAATAATGCTGTGTGGGAAGGCTTTTTGATT
AAATCTTTTCGGATTTATAACATCCTGTAAAGTTTTAGGAGAACCCGTTTTCCCAGAGCAGATTCAAGCTTCTAA
AAATAAATGCTTTCAGTAGCAGGAATGGCATTGTTAAAAAGCTGATGGCAGGGTAAGCATTGTTGGGTTAGTGTT
TATTAACATATTTGTAAGTACTTGTTTCATTGTGGAAATGTGTCCTTGACTAAAACCATACGTGGCTATGGAAAC
ATGTTTGTAGTTCTGAATACACAGGTTTTGTGTGTATTTACTCTATGTATTAAATTATTATTGCCCTTAGTTAA
AGTAAGGATTACAATTGGATTTAAGTAGATCACTGAATGTTATTGTTTATGAACTTAACTTTTGTATGCTGCT
TATAACATGATCTATAAATCAGTGCTTGGGAAAATTTACTTTCTTAATCTACTGATACAGGAATAAAATATGA
ACAATTAAACAGATAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 1354



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FIGURE 1355

ACGCCAAGGCGGCCACGTCCTGCTCCCCCTGGTGAAGAAGCTGCCCTGGGCTTGTCGTCCTAGGGTCTCCAGACA
TGTCTGAGGTGAAGAGCCGGAAGAAGTCGGGGCCCAAGGGAGCCCCTGCTGCGGAGCCCGGAAGCGGAGCGAGG
GCGGGAAGACCCCCGTGGCCCGGAGCAGCGGAGGCGGGGGCTGGGCAGACCCCGAACGTGCCTGAGCCTGCTGT
CGCTGGGGACGTGCCTGGGCCTGGCCTGGTTTGTATTTACAGCAGTCAGAAAAATTTGCAAAGGTGGAAAACCAAT
ACCAGTTACTGAACTAGAAACCAATGAATTCCAACAACCTCAAAGTAAAATCAGTTTAATTTAGAAAAAGTGGC
AGAAATCTGAAGCTATCATGGAACAATTGAAGTCTTTTCAAATAATTGCTCATCTAAAGCGTCTACAGGAAGAAA
TTAATGAGGTAAAACTTGGTCCAATAGGATAACTGAAAAACAGGATATACTGAACAACAGTCTGACGACGCTTT
CTCAAGACATTACAAAAGTAGACCAAAGTACAACCTCCATGGCAAAAGATGTTGGTCTCAAGATTACAAGTGTA
AAACAGATATACGACGGATTTAGGTTTAGTAAGTATGTAATATCATTGACAGATTCTGTGCAAGAACTAGAAA
ATAAAATAGAGAAAGTAGAAAAAATACAGTAAAAAATATAGGTGATCTTCTTTCAAGCAGTATTGATCGAACAG
CAACGCTCCGAAAGACAGCATCTGAAAATTACAAAAGAAATTAAGTCTGTTAAGAAGACGCTAACCGAACTAAAG
GTGACTTCGACAAACATACAGATAGATTTCTAAGCTTAGAAGGTGACAGAGCCAAAGTTCTGAAGACAGTGACTT
TTGCAAAATGATCTAAAACCAAAGGTGTATAATCTAAAGAAGGACTTTTCCCGTTTAGAACCATTAGTAAATGATT
TAACACTACGCATTGGGAGATTGGTTACCGACTTACTACAAAGAGAGAAAGAAATTGCTTTCTTAAGTGAAAAAA
TATCTAATTTAACAATAGTCCAAGCTGAGATTAAAGGATATTAAAGATGAAATAGCACACATTTAGATATGAAT
AGTTTGACATTATTGAGATTAGACTAAGGTAATTTTTTTAATGGGACCTCTCATGAGAAGACTGGTAAATCAAAA
ATAATGATATTTTGGAGCAAAGTCATTTTATATTTAATCCTATTTTGTACAGTAAAAATAAACTTTAAAGCAG
GTTGATTTTCCAAAATAAATATGCTAAACCTAAAAA

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FIGURE 1356

MSEVKSRKKS GPKGAPAAEPGKRSEGGKTPVARSSGGGGWADPRTCLSLSLGTCLGLAWFVFQQSEKFAKVENQ
YQLLKLETNEFQQLQSKISLISEKWQKSEAIMEQLKSFQIIAHLKRLQEEINEVKTWSNRITEKQDILNNSLTTL
SQDITKVDQSTTSMADVGLKITSVKTDIRRIISGLVTDVISLTDVQELNKEKVEKNTVKNIGDLLSSSIDRT
ATLRKTASENSQRINSVKKTLTELKSDFDKHTDRFLSLEGDRAKVLKTVTFANDLKPKVYNLKKDFSRLPLELVND
LTLRIGRLVTDLLQREKEIAFLSEKISNLTIVQAEIKDIKDEIAHISDMN

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FIGURE 1357A

GGTGAGAAGCACTAGAAATATCCATTTCAGTTATTAGTGGGGATTTAGGTTTCAGGTCTGTTGTTTAAGGAGCCCTTA
AACTTTAAATTTCAACACAGGAATGGAGGTCCCTGTGTAAGGATTGGGAATGGGACCTAATAACTGCTCCCTCAA
GGTGAGTTGCGAGTCAGCTGGCCATCTCCATCTCCCATGCATTACCTTGATGTACCTTCCAGTCCACCATCTGCT
TGTGCACCAGGCTGCACCTACTGTTCCATGATGGAAGGGAAGGTAGAAAGTTGGGCTGGAAGGAGATGTTGGTCCA
GATCTGGGTACATTTACCCCTTGTTGGTACCTCTTGGGAGCAAGAAAGTCCAGGCCCTGGAGCCTTCCACTGACAA
CTCTTGAAGGCCCACTCAACTGAAGCCTCACTGATAGCACTTTCATGAGATGCTGGTCAGGGAAGAGCTTCTGA
TTTGGCCTAGGCTAGTGGCAGTGCCACCAGGCAATTGCTTAAATCTTCTTTCTGCCAAATCTGTGATGTATTA
AAGTATGCGATACATGAAAATTGAGAGTGGCTTTGGTTTTGTTGTAGGTCTGGATCTATTTACCTTTATTAAGCT
CTGGAGACTGACATATGATATTTTAGATGTATGAGTGCAGATTTATGGAGATATTGGTCTGGATTTAGTATGA
GATGCTAAACCTGGTCCCCATTGTTCTCAAGGCCACTGCACCTGGCCGATAACAGATGTTTTAATAGTAAGATAA
AAAGTAAAATTTCCAGTGTGTGGAAGGAAGAAAATTACAGCCTAGAAATTTATCTTCATGTACATTATTTAAGTG
TGAGGGAATAGTTTCAGTGACATTATGTCATTGAAGACCTTAGAAGATTTCCCTCGCTAAAGGAGATAAAGCGAC
TGGCACAACATGTATTTCTCTGAGTAAGTAGAAGTGTTCTTTCTGGCTGTACTGAAGGGACTTTCATGATTTCT
TCGTTTTTGTACTCTTAGTTTTATAATATTGCATAGTAGCTAAGGCCTGGCTGTAGCAGTTATAAACTGTTCTGC
AAGTGCGGGAAGTAATAGTTATTCCTATCTCAAGGATGTGGGTTTAAATGGGTTAGTGCACAAAAGGACATTTA
TTAAATTTAGTCATAATCATCTCAAGGACATGGTAAGTGAAAGAGTGTACATAAAGTACTTAATGTAATGTTGCT
ACTTAATGTTCAATAACTCAAAGAGACCACCACCTACTACATTTTACTTTTATTAGTAATTAATAATAATTAA
TAATTAGTAATTCAGTGGAATTAGTATACTACCAAAGAAAGTACTTGAGCAGAAGAGCCAAAATTCAAACCATA
GAATCATTTTACTGTGCTTTTATTCTACCTCAAACACTAATCTCCAGGCCTTGGATAAAGGGATTATTTCTCTGA
AGGGGAAAAGTTATCCTCTTTTTGCCCAAGTCACACTTGTGTCAATTTCTTATACTGTAAACATGTGGTTCCAATTC
TGAGGTATTTTCCCGGCTTGTAGGACCCAAAAGAAGTTAGGCTTGAGAAATTTAAGTGAAGAGAACAATTCTA
GTTTCAGAGTGATTGGCTCTTCCTAAAAGCTGACATTTGACTGAAAATTTTGAGGGGAGGGAAGAAACAATACCT
TTTACGGCATGTAATAGGAAGAAGACCTGGATTTTAGTTGCTGCTCTGATGTCCCAACTTGGGTAAGGCAACATA
ACATAAATGTCAGTTTCTTCAGATTTGTGATGAAGCTGATAATCCATGCTCAGCTTCCTTTATGGGTCTCTTGCC
TATCAAATAAGGTACAGTATGTGAAGATACATTGCAGATTATCTTATGCATTGCTTCAGGGGATGATTAAACCAT
CCTTTATTATAGCCAGAGTCTAGTCTAAGGGAAGAAGGTCATTCTCTATACCAGTGAAGGCTCCATCCAAACCAG
TGTTTGGGGGCATAGTCATAATTGAAAATGATTGTTTTCTTATCTGTAAACAGGTAAATGGTATTAATCCTC
AGGTGGTTGTGAGGATTAAGTGATACATGTAAAAAAGAAAGCTTTGGATAGTACCTATTATAAGAACTCAGT
GTTGCTGCAATGTATGTATTATAATGGATTTGAAATTTGCCCTAACCAAGAGTCACAGACAGAAAAAGGAAGTT
AATGTATCTCTTGATCACTATCAAGATGTGGTATTGAACCTTCAAGATCCTTTTCAGGGAATATGTGAGATCAAA
ATTTTATACTGGCACTATGATGTTATTTGCCTTTTCTCATATTCACAAGTGAACAGTGGAGTTTTACAGAAGC
TATATAATGTCATGACATCACTGATGGGTAATAGAATGTGTGCTTGTATATTCCGAACTTTCAGTTCCAATTC
TTCGATCAATGTAATCCTCATAAGTAAAAGTTATTTGAGGACCTCAGACATTTTAAAAATGTAAAGGGGGTGGN
NN
NN
NN
NN
NN
TATATTTGACAACCTGGTATGTAGGATGTGCTACCTCTAATGTTCCATGCTGTTACTTAGTTTTCACTCACTACT
ATATTTTGGAGATTTGTTTCATATTGCTCTGTGTACATTTAATCTTCAGTGTGTATCCACCACATTTAACTTATT
CACTTACAGAACTATGCAAGAATTTCTCTGGTAAATTTCACTAAGTACTTATGTACTTTTCAGAACGATTGTGAG
TTTACACCCCTACCAGCAGGACTGAGTTGAGTACCCATTTCTCCTCATCCTTGCCAGTACTTCATTTGCCTAATT
TTTGGCATTCTCATAATGTGGCAATTGTTCAATTTTGCAATTTCTCCATTTTATTTTTTGCATCTCTGCTTTTC
TTTTGGTTAGCTTTGCCAGTTCTGCCTATTATATTAATCTCCCAGAATCAGCTTTTAGTTTGTAAATCTCTGA
CATGTTTCGTTGATTCTGCTTTCATCTTAAACATTTCTTCGTTGTTAATTTGTGTTTGTCTATAAAATAAGCAAC
ATCTTAAATGCTTGATTTGCTTTCGATGTTTATTCTGTAAATAAGATATTTAAAGATATAATTTTTCCCTAAATG
CTTTATTAGACTTTTCTCATAAGTTTGTACTGGTACTGTTTTCAATTTGTTATTTAATTTTGTGTTTTTAACTTCT
TTCATGATTTCTTTTAACTGAAGGTTTTCTTAGATATTTAGTTTGTGTTATATTCTTTTAAATTTGTATCATT
GCTTTCTTTCTATATTGGATTATTGTGAGAGACATGATTTGCATGATATTAATTTTGGAGTATATTGTTGCA

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FIGURE 1357B

TCTTTGTGGCCTAGTACATAGTTAATTTAGTGAATGCTTCCAGTTGTACTTGAAAAGAATGTATATTTTCTGATT
ATTGAGGGTAAATTTCTCTATATATGTTTTCTGTTTAATAAATATGTAGCTATGTGCTTATGAAA

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FIGURE 1358

VRSTRNIHSVISGD

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FIGURE 1359

CCGCAGAACTTGGGGAGCCGCCGCCCATCCGCCGCCGACCCAGCTTCCGCCGCCGACGACCGGCCCTGCC
CCAGCCTCCGCAGCCGCGGCGCGTCCACGCCCGCCCGCGCCAGGGCGAGTCGGGGTCGCCGCTGCACGCTTCT
CAGTGTTCCTCCGCGCCCCGCGATGTAACCCGGCCAGGCCCCCGCAACGGTGTCCCCTGCAGCTCCAGCCCCGGGT
GCACCCCCCGCCCCGACACAGCTCTCCAGCCTGCTCGTCCAGGATGCGCGGCCAAGGCCGAGATGCAGCTG
ATGTCCCCGCTGCAGATCTCTGACCCGTTCCGATCCTTTCTCACTCGCCACCATGGACAACCTACCCTAAGCTG
GAGGAGATGATGCTGCTGAGCAACGGGGCTCCCCAGTTCTCGGCCGCCGGGGCCCCAGAGGGCAGGGGCAGC
AACAGCAGCAGCAGCAGCAGCGGGGGCGGTGGAGGCGGCGGGGGCGGCAGCAACAGCAGCAGCAGCAGCAGCACC
TTCAACCCCTCAGGCGGACACGGGCGAGCAGCCCTACGAGCACCCTGACCGCAGAGTCTTTTCTGACATCTCTCTG
AACAACGAGAAGGTGCTGGTGGAGACCAGTTACCCAGCCAAACCACTCGACTGCCCCCATCACCTATACTGGC
CGCTTTTCCCTGGAGCCTGCACCCAACAGTGGCAACACCTTGTGGCCCGAGCCCTCTTCAGCTTGGTCAGTGGC
CTAGTGAGCATGACCAACCCACCGGCCTCCTCGTCTCAGCACCATCTCCAGCGGCCTCCTCCGCTCCGCTCC
CAGAGCCACCCCTGAGCTGCGCAGTGCCATCCAACGACAGCAGTCCCATTACTCAGCGGCACCCACCTTCCCC
ACGCCGAACACTGACATTTTCCCTGAGCCACAAAGCCAGGCCTTCCCGGGCTCGGCAGGGACAGCGCTCCAGTAC
CCGCTCCTGCCTACCCTGCCGCCAAGGGTGGCTTCCAGGTTCCCATGATCCCCGACTACCTGTTTCCACAGCAG
CAGGGGGATCTGGGCCTGGGCACCCAGACCAGAAGCCCTTCCAGGGCCTGGAGAGCCGCACCCAGCAGCCTTCG
CTAACCCCTCTGTCTACTATTAAGGCCCTTTGCCACTCAGTCGGGCTCCAGGACCTGAAGGCCCTCAATACCAGC
TACCAGTCCCAGCTCATCAACCCAGCCGATGCGCAAGTATCCAACCGGCCAGCAAGACGCCCCCCCCACGAA
CGCCCTTACGCTTGCCAGTGGAGTCTGTGATCGCCGCTTCTCCCGCTCCGACGAGCTCACCCGCCACATCCGC
ATCCACACAGGCCAGAAGCCCTTCCAGTGCCGCATCTGCATGCGCAACTTCAGCCGCAGCGACCACCTCACCACC
CACATCCGCACCCACACAGGCGAAAAGCCCTTCGCTGCGACATCTGTGGAAGAAAGTTTGCCAGGAGCGATGAA
CGCAAGAGGCATACCAAGATCCACTTGCGGCAGAAGGACAAGAAAGCAGACAAAAGTGTGTGGCCTCTTCGGCC
ACCTCCTCTCTCTCTTCTACCCGTCCCCGGTTGCTACCTCTTACCCGTCCCCGGTTACTACCTCTTATCCATCC
CCGGCCACCACCTCATACCCATCCCCTGTGCCACCTCCTTCTCCTCTCCCGCTCCTCGACCTACCCATCCCCT
GTGCACAGTGGCTTCCCCTCCCCGTGGTGGCCACCACGTACTCCTCTGTTCCTCTGCTTTCCCGGCCAGGT
AGCAGCTTCCCTTCTCAGCTGTACCAACTCCTTCAGCGCCTCCACAGGGCTTTCGGACATGACAGCAACCTTT
TCTCCAGGACAATTGAAATTTGCTAAAGGGGAAAGGGGAAAGAAAGGGGAGAAAAAGAAACACAAGAGA
CTTAAAGGACAGGAGGAGGAGATGGCCATAGGAGAGGAGGGTTCTCTTAGGTGAGATGGAGTTCTCAGAGCCA
AGTCCCTCCTCTCTACTGGAGTGAAGGTCTATTGGCCAACAATCCTTTCTGCCACTTCCCCCTTCCCCAATTAC
TATCCCTTTGACTTCAGCTGCCTGAAACAGCCATGTCCAAGTTCTTCACCTCTATCCAAAGAACTTGATTTGCA
TGGATTTTGGATAAATCATTTTCAGTATCATCTCCATCATATGCCTGACCCCTTGCTCCCTTCAATGCTAGAAAAT
CGAGTTGGCAAAATGGGGTTTGGGCCCCCTCAGAGCCCTGCCCTGCACCCCTGTACAGTGTCTGTGCCATGGATTT
CGTTTTTCTTGGGGTACTCTTGATGTGAAGATAATTTGCATATTCTATTGTATTATTTGGAGTTAGGTCTCACT
TGGGGGAAAAAAAAAAAAAAAAAGCCAAGCAAACCAATGGTGATCCTCTATTTTGTGATGATGCTGTGACAATAAG
TTTGAACCTTTTTTTTTTGAACAGCAGTCCCAGTATTCTCAGAGCATGTGTGAGAGTGTGTTCGGTTAACCTTT
TTGTAAATACTGCTTGACCGTACTCTCACATGTGGCAAAATATGGTTTGGTTTTTCTTTTTTTTTTTGAAAGTG
TTTTTCTTCGTCTTTTTTGGTTTAAAAAGTTTACGCTTGGTGCCTTTTGTGTGATGCCCCCTTGCTGATGGCTT
GACATGTGCAATTGTGAGGGACATGCTCACCTCTAGCCTTAAGGGGGGAGGGAGTGATGATTTGGGGGAGGCTT
TGGGAGCAAAATAAGGAAGAGGGCTGAGCTGAGCTTCGGTTCTCAGAATGTAAGAAAACAAAATCTAAAACAAA
ATCTGAACTCTCAAAAGTCTATTTTTTTAACTGAAAATGTAAATTTATAAATATATTACAGGAGTTGGAATGTTGT
AGTTACCTACTGAGTAGGCGGCGATTTTTTGTATGTTATGAACATGCAGTTCATTATTTTGTGGTTCTATTTTACT
TTGTACTTGTGTTTGCTTAAACAAAGTGACTGTTTGGCTTATAAACACATTGAATGCGCTTTATTGCCCATGGGA
TATGTGGTGTATATCCTTCCAAAAAATTAACGAAAATAAAGTAGCTGCGATTGGG

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FIGURE 1360

MAAAKAEMQLMSPLQISDPFGSFPHSPTMDNYPKLEEMMLLSNGAPQFLGAAGAPEGSGSNSSSSSSGGGGGGG
GSNSSSSSSTFNPQADTGEQPYEHLTAESFPDISLNNEKVLVETSYPSTTRLPPITYTGRFSLEPAPNSGNTLW
PEPLFSLVSGLVSMTNPPASSSSAPSPAASSASASQSPPLSCAVPSNDSSPIYSAAPTFTPNTDIFPEPQSQAF
PGSAGTALQYPPPAYPAAKGGFQVPMIPDYLFPQQQDLGLGTPDQKPFQGLSRTQQPSLTPLSTIKAFATQSG
SQDLKALNTSYQSOLIKPSRMRKYPNRPSKTPPHERPYACPVESCDRRFSRDELTRHIRHTGQKPFQCRICMR
NFSRSDHLTTHIRHTGEKPFACDICGRKFARSDEKRRHTKIHLRQKDKKADKSVVASSATSSLSSYPSPVATSY
PSPVTTSYPSPATTSYPSPVPTSFSSPGSSSTYSPVHSGFSPSPSVATTYSSVPPAFPAQVSSFPSSAVTNSFSAS
TGLSDMTATFSPRTIEIC

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FIGURE 1361

GGCACAGGGCTGTGACTAGCGGGCCGGCCCGGGCCAGGACAGCGGGCGGGCGGGCGGGCGGGCTGGCCCCGGGA
TGGCTATGTTCCGCAGCCTGGTGGCCTCGGCTCAGCAGCGGCAGCCGCCGGCCGGGCGGGCGGGCGGACAGCG
GCCTGGAGGCGCAGTACACCTGCCCCATCTGCCTGGAGGTCTATCACCGGCCCGTGGCCATCGGCAGCTGCGGCC
ACACGTTCTGCGGGGAGTGTCTCCAGCCCTGCCTGCAGGTGCCATCCCCGCTGTGCCCACTGTGCCGCCTGCCCT
TCGACCCCCAAGAAGGTGGACAAGGCCACCCACGTGGAGAAGCAGCTCTCATCCTACAAAGCGCCCTGTGAGGGCT
GCAACAAAAAAGGTGACCCTGGCAAAGATGAGAGTGCACATTTTCGTCCCTGCCTGAAGGTCCAGGAGCAGATGGCCA
ACTGCCCCAAGTTCGTCCCCGTGGTGGCCACATCACAGCCTATCCCCAGCAACATCCCCAACAGGTCCACCTTCG
CCTGCCCCGTACTGTGGTGGCCGAACCTGGACCAGCAGGAGCTGGTGAAGCACTGTGTGGAAAGCCACCGCAGCG
ACCCCAACCGCGTGGTGTGCCCCATCTGCTCGGCAATGCCCTGGGGGGACCCAGCTACAAGAGCGCCAACTTCC
TGCAGCACCTGCTTACCGACACAAGTTCTCCTACGACACCTTTGTGGACTACAGTATTGACGAGGAGGCCCGCT
TCCAGGCTGCTCTGGCCCTGTCTCTCTCTGAGAAC**TGA**AGGGAAGCGCAGCCACCCGCCTGCGTCTGGGGTCAGG
GATGTCCCCGCTCCTGTGTGCGACCTGGCACCTGCTCGGGAGCGCACCTACCGGACTGAGCTCACAGGAGGAGC
CTGCACCCGCGCAGAAGGGGAGCCGGGGCCGAGCCTCCGGGCCTGAATACGGGCCAGCCGCCGAGGCCGCCAGAG
CAGGGCCCGCCTGGTCCCACCGGCGTCTGCTGGGTTCTTCGGTGCTTCTGGCCGAGCAGGCGGCCTACTTGGGCAGG
GCTGGACGCTGGGACCTGGAGCTGCCGCCGTCTCTCAAAGCCATGATACCCCTCGTGGGAAGAAGGGACCGAC
GCGCGAGTCGCGCTCCGCAGTCGAGCCGGGAGGAACCCAGGCTGCTGCCCTGCCAGCCCGACCCTGCCCCGGCC
CCGCTTCCACCTTGCGCATTTGGTACTGGCTTTTGTGATACTTAGGAACCCTGGCATCTTTTCTATATTATCCAG
TGTGATAATCTTTTACGTTTTATAGAGCAAAGACAGAGCAGTTACTCTTCATATTGCAATATCTGTGTTTGACT
AGGAATAATAGTATTTTTATGGAACATTTACAAAATTATATTTTTTAAGAAAACAATCAAAACAAGCATTGGGGG
ATTGGGGCAAGGATGGAAGGAGCAGTGGGGCAGCTGCCAGAGCTCAGGCGAGCCATGGGGTCTGCTGTGGGGTCT
GCCCTGGCCACCCACTGTGTGTCTGGGTCTTGAGGTTTGTACGTTTCTCTTTGATGACCAGGAAGAAATCCCAG
CACCCAGCCACAGGCTGTGGCTGCTCCCAGCAGAGGTGGGGCCGGCAGAGAAGGGGCCTCCTCCACCCAGAGTC
CTGGCCTTGGCCCGCTGTACCTTCAAAGCTGACTGTGCCCGCTGCGGGAGGGGACGGCACCCAGTGGTGGCA
GAGCTTGGGGGCCTGGGCAGGGGCCCCGCTTGGCGGGCCGGGCAACACGTCAACATTCTTTTCTGTTCTTGGCATT
AATTATTGCTGTCTTTTTTTAAAAAAGTTTAAATAAAATGTCTCAGAGCAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAA

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FIGURE 1362

MAMFRSLVASAQQRQPPAGPAGGDSGLEAQYTCPICLEVYHRPVAIGSCGHTFCGECLOPCLQVPSPLCPLCRLP
FDPKKVDKATHVEKQLSSYKAPCRGCNKKVTLAKMRVHISSCLKVQEQMANCPKFVPVVPTSQPIPSNIPNRSTF
ACPYCGARNLDQQELVKHCVESHRSDPNRVVCPICSAMPWGDP SYKSANFLQHLLHRHKFSYDTFVDYSIDEEAA
FQAALALSLEN

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FIGURE 1363

TTGAGCGCAGGTGAGCTCCTGCGCGTTCCGGGGGCGTTCCCTCCAGTCACCCCTCCCGCCGTTACCCGCGGCGCGCC
CGAGGGAGTCTCCTCCAGACCTCCCTCCCGTTGCTCCAACTAATACGGACTGAACGGATCGCTGCGAGGGTGG
GAGAGAAAATTAGGGGGAGAAAGGACAGAGAGAGCAACTACCATCCATAGCCAGATAGATTATCTTACACTGAAC
TGATCAAGTACTTTGAAAATGACTTCGAAATTTATCTTGGTGTCTTCATACTTGCTGCACTGAGTCTTTCAACC
ACCTTTTCTCTCCAAC TAGACCAGCAAAAGGTTCTACTAGTTTCTTTTGATGGATTCCGTTGGGATTACTTATAT
AAAGTTCCAACGCCCATTTTCATTATATTATGAAATATGGTGTTCACGTGAAGCAAGTTACTAATGTTTTTATT
ACAAAAACCTACCCTAACCATTATACTTTGGTAACTGGCCTCTTTGCAGAGAATCATGGGATTGTTGCAATGAT
ATGTTTGATCCTATTTCGGAACAAATCTTTCTCCTTGGATCACATGAATATTTATGATTCCAAGTTTTGGGAAGAA
GCGACACCAATATGGATCACAAACCAGAGGGCAGGACATACTAGTGGTGCAGCCATGTGGCCCGGAACAGATGTA
AAAATACATAAGCGCTTTTCTACTCATTACATGCCTTACAATGAGTCAGTTTCATTTGAAGATAGAGTTGCCAAA
ATTGTTGAATGGTTTACGTCAAAAGAGCCATAAATCTTGGTCTTCTCTATTGGGAAGACCCTGATGACATGGGC
CACCATTTGGGACCTGACAGTCCGCTCATGGGGCCTGTCAATTCAGATATTGACAAGAAGTTAGGATATCTCATA
CAAATGCTGAAAAAGGCAAAGTTGTGGAACACTCTGAACCTAATCATCACAGTGATCATGGAATGACGCAGTGC
TCTGAGGAAAGGTTAATAGAACTTGACCAGTACCTGGATAAAGACCCTATACCCTGATTGATCAATCTCCAGTA
GCAGCCATCTTGCCAAAAGAAGGTAAATTTGATGAAGTCTATGAAGCACTAAGTACGCTCATCCTAATCTTACT
GTTTACAAAAAAGAAGACGTTCCAGAAAGGTGGCATTACAAATACAACAGTCAATTCACCAATCATAGCAGTG
GCTGATGAAGGGTGGCACATTTTACAGAATAAGTCAGATGACTTTCTGTTAGGCAACCACGGTTACGATAATGCG
TTAGCAGATATGCATCCAATATTTTAGCCCATGGTCTGCCTTCAGAAAGAATTTCTCAAAGAAGCCATGAAC
TCCACAGATTTGTACCCACTACTATGCCACCTCCTCAATATCACTGCCATGCCACACAATGGATCATTCTGGAAT
GTCCAGGATCTGCTCAATTCAGCAATGCCAAGGGTGGTCCCTTATACACAGAGTACTATACTCCTCCCTGGTAGT
GTTAAACCAGCAGAATATGACCAAGAGGGGTCATACCCTTATTTCATAGGGGTCTCTCTTGGCAGCATTATAGTG
ATTGTATTTTTTTGTAATTTTCATTAAGCATTTAATTCACAGTCAAATACCTGCCTTACAAGATATGCATGCTGAA
ATAGCTCAACCATTATTACAAGCCTAATGTTACTTTGAAGTGGATTTGCATATTGAAGTGGAGATTCCATAATTA
TGTCAGTGTTTAAAGGTTTCAAATCTGGGAAACCAGTTCCAAACATCTGCAGAAACCATTAAGCAGTTACATAT
TTAGGTATACACACACACACACACACACATACACACACACGACCAAATACTTACACCTGCAAAGGAATAAA
GATGTGAGAGTATGTCTCCATTGTTCACTGTAGCATAGGGATAGATAAGATCCTGCTTTATTTGGACTTGGCGCA
GATAATGTATATATTTAGCAACTTTGCACTATGTAAAGTACCTTATATATTGCACTTTAAATTTCTCTCCTGATG
GGTACTTTAATTTGAAATGCATTTTATGGACAGTTATGTCTTATAACTTGATTGAAAATGACAACCTTTTGCACC
CATGTCACAGAATACTTGTTACGCATTGTTCAAACCTGAAGGAAATTTCTAATAATCCCGAATAATGAACATAGAA
ATCTATCTCCATAAATTGAGAGAAGAAGAAGGTGATAAGTGTGAAAATTAATGTGATAACCTTTGAACCTTGA
ATTTTGGAGATGTATTCCCAACAGCAGAATGCAACTGTGGGCATTTCTTGCTTATTTCTTTCCAGAGAACGTGG
TTTTCATTTATTTTCCCTCAAAGAGAGTCAAATACTGACAGATTCGTTCTAAATATATTGTTTCTGTCTATAAA
ATTATTGTGATTTCTGTAGTCATATTACTGTGATTTTCATAATAATGAAGACACCATGAATATACTTTTCTT
CTATATAGTTCAGCAATGGCCTGAATAGAAGCAACCAGGCACCATCTCAGCAATGTTTTCTTGTGTTGTAATTA
TTTGCTCCTTTGAAAATTAATCACTATTAATTACATTAATAATCAAATTGGATAAAAAAAAAAAAAAAAAAAAA

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FIGURE 1364

MTSKFILVSFILAALSLSTTFSLQLDQQKVLVSFDGFRWDYLYKVPTPHFHYIMKYGVHVKQVTNVFIITKYPN
HYTLVTGLFAENHGIVANDMFDP IRNKSFSLDHMNIYDSKFWEEATPIWITNQRAGHTSGAAMWPGTDVKIHKRF
PTHYMPYNESVSFEDRVAKIVEWFTSKEP INLGLLYWEDPDDMGHHLGPDSPLMGPVISDIDKKLGYLIQMLKKA
KLWNTLNLIITSDHGMTQCSEERLIELDQYLDKDHYTELIDQSPVAAILPKEGKFDEVYEALTHAHPNLTVYKKED
VPERWHYKYNSRIQPII AVADEGWHLQNKSDDFLLGNHGYDNALADMHP IFLAHGPAFRKNFSKEAMNSTDLYP
LLCHLLNITAMPHNGSFWNVQDLLNSAMPRVVPYTQSTILLPGSVKPAEYDQEGSYPYFIGVSLGSIIVIVFFVI
FIKHLIHSQIPALQDMHAEIAQPLLQA

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FIGURE 1365

GAATCTCTCGCGGGCAGCAGGGCGCGCGCTGCACGCACAGTACTAGGTCAGGTGGTGCTCCCGGGTGAGGAGCTG
CTCCTGCCGGAACAGGAGGACGCGGAAGGCCCTGGGGGTGCAGTGGAGCGACCGTTGAGCCTGAATGCTAGAGCG
TGCTCGCGGGTGCGCGTTTGTATGCGGTCCGGGCCTTCGACGCTGTGGGGACCGCTGCTGGTCACCAAGTGCGG
CCGCCTCCGTCACAAGGAGCCCGGCAGTGGAGGCGGCGGCGGTGTTTACTGGGTGGACTCTCAGCAGAAGCGGTA
TGTTCCAGTAAAAGGAGACCATGTGATTGGCATAGTGACAGCTAAATCTGGAGATATATTCAAAGTTGATGTTGG
AGGGAGTGAGCCAGCTTCTTTGTCTTACTTGTTCATTTGAAGGTGCAACTAAAAGAAACAGACCAAATGTGCAGGT
TGGAGATCTCATCTATGGCCAGTTTGTGGTTGCTAATAAAGACATGGAACCAGAGATGGTCTGTATTGACAGCTG
TGGACGAGCCAAATGGAATGGGTGTCATTGGACAGGATGGTCTGCTTTTTAAAGTGACTCTGGGCTTAATTAGAAA
GCTATTAGCTCCAGATTGTGAAATCATACAGGAAGTGGGAAAACTCTATCCACTGGAGATAGTATTTGGAATGAA
TGGAAGAATATGGGTTAAGGCAAAAACCATCCAGCAGACTTTAATTTTGGCAAACATTTTAGAAGCTTGTGAACA
CATGACGTCAGATCAAAGAAAACAGATCTTCTCCAGATTGGCAGAAAAGTTGATATAGGTGGACTTTTTTACAGGT
CAGTTGAGGCAAAAACTATGGGTTTTTTTCAGGTGAACCTCCCCCATTTAAATACTCAGAAGATAAGGTGTGAAT
GTATGTATTATTAGAGTCCGAAAGTATTTTTATAAGTTACTGGTTTTTACCCACGCTTTTGTGGGAGAGAAAATC
ATTGCAAAATCATTTTTTTTTGTTTCGGTACAATAAAGTTTACTAAAAAACAAA

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FIGURE 1366

MLERARGCAFVCGPGLRRCGDRLLVTKCGRLRHKEPGSGGGGGVYWVDSQQKRYVPVKGDHVGIVTAKSGDIFK
VDVGGSEPASLSYLSFEGATKRNRPNVQVGDLIYQQFVVANKDMEPEMVCIDSCGRANGMGVIGQDGLLFKVTLG
LIRKLLAPDCEIIQEVGKLYPLEIVFGMNGRIWVKAKTIQQTLILANILEACEHMTSDQRKQIFSRLAES

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FIGURE 1367

GGCACGAGGTGATGAAGAAGCCAGTTATCTCAGATTTGAAATAGTATATGGAAAAATGAAGAAGAGAAAGTGGA
AATTTTTCATCCTTTGCGACTAGTTCGGGATCCACTGTCACCTGCTGTAAGACAGAAAGAACTGTGAAAAATGA
CCTGCCTGTAAATGAAGCTGCAATTAGAAAAATAGCTGCCCTTGAAATGAGCTGACTTTTCTTCGCTCTCAGAT
TGCAGCAATTGTGGAAATGCAGGAAC TGAGAAAAATAGTACAAATTCTAGTTCCTTTGGCTTGAGTGACGAGCGCAT
TAGTTTGGGTCAGCTGTCATCATCGCGGGCTGCCCATCTGAGTGTGGACCCAGATCAGCTTCCAGGTTTCAGTGCT
TTCTCCTCCTCCTCCTCCACCACTTCTCCTCAGTTTTTCATCTCTCCAGCCACCGTGTTTTCTTCCCGTACAACC
AGGATCTAATAATATTTGTGACTCAGATAATCCAGCAACTGAAATGAGCAAACAGAACCCGGCTGCTAATAAGAC
CAATTATAGTCATCATTCAAAAAGCCAGAGAAATAAAGATATTCCAAACATGTTGGACGTTCTAAAGGATATGAA
TAAGGTTAAGCTTCGTGCAATTGAGCGGTCACCTGGCGGTAGACCCATTTCATAAGAGGAAAAGACAGAATTCACA
TTGGGATCCAGTTTCTTTAATATCTCATGCACTTAAACAGAAATTTGCATTTCAAGAAGATGATTCTTTTGAGAA
AGAGAATAGATCTTGGAATCTTCCCCATTTTCTAGTCCAGAACTTCAAGGTTTGGACATCACATTTTCACAGTC
AGAAGGACAGCGAACTAAAGAAGAAATGGTCAACACAAAAGCTGTTGACCAAGGTATCAGCAACACAAGCCTTCT
AAACTCAAGGATT TAAACTCAACTTAAGGTTGAGCTTTAAACTTCCAAAACCTTCTTCTGGATGATAAATTATTC
TTAGAAACTGATTTGGACTGTTAAAGGCTAAAAGTAGATGTATTTAAAGACTCTTCTTGACACATTTTGCCTACA
CTTGCTATGTAAATATGTATGCCTGTCATTTTTGTTTCCTTTGTTTCCTTTTACGTTTATACTCTGTTCTTCTGT
ACATAGAGCTTAAATAAACATTCTTTTTGAACTTGAAAAAAAAAAAAAAAAAAAA

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FIGURE 1368

MQELKNSTNSSSFGLSDERISLGQLSSSRAAHLSDPDQLPGSVLSPPPPPLPPQFSSLQPPCFPPVQPGSNNI
CDSDNPATEMSKQNPAAANKTNYSHHSKSQRNKDIPNMLDVLKDMNKVKLRAIERSPGGRPIHKRKRQNSHWDPS
LISHALKQKFAFQEDDSFEKENRSWESSPFSSPETSFRFGHHISQSEGQRTKEEMVNTKAVDQGISNTSLNSRI

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FIGURE 1369

CGCGGTTTCGGTCGGCTGCAGCGCTACTTTTGGTCCGGGGTCGGCAGGGAGGCCGCGGCTACCGCATCACAGCTGA
CGTGAGGACTACGTGGGGCCGCTGCCGGCTCCGGGTTGCTGGGCGGCGGCCGCTGCTGAGCGGCGGTTCGGGCT
CGCCGTCTCCACCTCCTCGCGTCCGTAATCAGTGACGAGGTCCGCTACGTAAATCCCTTTGCGGCGGACAAATGA
CCATGGAAACAGTTGAATCCCAGCATGATGGAAGTATAACAGCTTCTTTGACAGAGAGCAAGTCTGCTCATGTGC
AGACTCAGACTGGCCAAAATTCAATCCCTGCTTTAGCTCAGGTAGCAGCAATTGCAGAGACAGATGAATCTGCAG
AATCAGAAGGTGTAATTGATTCTCATAAACGTAGAGAAATCCTTTCACGAAGACCCTCTTATAGGAAAATACTGA
ATGAACTGTCCTCTGATGTGCCTGGTGTTCCTAAGATTGAAGAAGAGAGATCAGAGGAAGAAGGAACACCACCTA
GTATTGCTACCATGGCAGTACCAACTAGCATATATCAGACTAGCACGGGGCAATACAGTATGTATGCTGCAATTC
GATATGATACAGTGCTAGCTTTAAGTCTTCTCTAGTTATATTGAAGCAACTCAGGTTTTGGCATTAAATTGTTCC
ATTTTAAAATGCATCATTAACTAACTGTATCATAGAATGAAAGTATATGTTAAAAAGTGAGATCTTTGTAT
TGACAGCTGTCATATAATTTTGAAAAGTAAAAATTTTGACTGCCGAATATAGAAGAAAATTTTGGGGTAAAAAGG
AGAATTTTTCCTATTTACATGTTTATATTAATCTCTAGTAAAACATTGTTTTTGTGTTCTTTATGATGCATGCGA
ACATAAATGTCTGTATTTTCAATCTTGTGGCTTTTGTACCCACAATTACATACTATTCTTACTAATCTGAGAGT
TTTCTAAAGTATGTTTTCAATGTTTCACTACTCTCTACTCTGTTAATTTGTGCTACAGTTTTTCTAAAAGAGAA
TGAAAAAATGATTTAATTTTTTAACTGTAGCAATTGGATAGATAATTTTATTTGAAATTTTACACACTGAAAGC
TCTAAATAAACAGATACATTCACAAAAA

A

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FIGURE 1370

MTMETVESQHDGSITASLTESKSAHVQTQTGQNSIPALAQVAAIAETDESAESEGVIDSHKRREILSRRPSYRKI
LNELSSDVPGVPKIEERSEEEGTPPSIATMAVPTSIYQTSTGQYSMYAAIRYDTVLALSL

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FIGURE 1371

GGGGGTGGCGGGGACGCGAGTGGCGGCCGCGGGGCCCCGGACAAGGGTCCGCAGAGCTGCAGCCTTCGAGGGCCA
GCCCTCTCCGAGTCCGGGGCTGGGTCCCACCAAGTGACAAGGCGGCAGCCCCGCGCACACCAAAGAGAAAGCGGCT
GTGGCGGCAGCGGCAGCCCCAGCCATGCTGTGTTATGTGACGAGGCCGGACGCGGTGCTGATGGAGGTGGAGGTG
GAGGCGAAAGCCAACGGCGAGGACTGCCTCAACCAGGTGTGCAGGCGACTGGGAATCATAGAAGTTGACTATTTT
GGACTGCAATTTACGGGTAGCAAAGGTGAAAGTTTATGGCTAAACCTGAGAAACCGGATCTCCCAGCAGATGGAT
GGGCTAGCCCCCTTACAGGCTTAACTTAGAGTCAAGTTCTTCGTGGAGCCTCATCTCATCTTACAGGAGCAGACT
AGGCATATCTTTTTCTTGACATCAAGGAGGCCCTCTTGGCAGGCCACCTCTTGTGTTCCCCAGAGCAGGCAGTG
GAACTCAGTGCCCTCCTGGCCCAGACCAAGTTTGGAGACTACAACCAGAACACTGCCAAGTATAACTATGAGGAG
CTCTGTGCCAAGGAGCTCTCCTCTGCCACCTTGAACAGCATTGTTGCAAAACATAAGGAGTTGGAGGGGACCAGC
CAGGCTTCAGCTGAATACCAAGTTTTGCAGATTGTGTCGGCAATGGAAAACCTATGGCATAGAATGGCATTCTGTG
CGGGATAGCGAAGGGCAGAGACTGCTCATTGGGGTTGGACCTGAAGGAATCTCAATTTGTAAAGATGACTTTAGC
CCAATTAATAGGATAGCTTATCCTGTGGTGCAGATGGCCACCCAGTCAGGAAAGAATGTATATTTGACGGTCACC
AAGGAATCTGGGAACAGCATCGTGCTCTTGTTTAAAATGATCAGCACCCAGGGCGGCCAGCGGGCTCTACCGAGCG
ATAACAGAGACGCACGCATTCTACAGGTGTGACACAGTGACCAGCGCCGTGATGATGCAGTATAGCCGTGACTTG
AAGGGCCACTTGGCATCTCTGTTTCTGAATGAAAACATTAACCTTGGCAAGAAATATGTCTTTGATATTTAAAGA
ACATCAAAGGAGGTGTATGACCATGCCAGGAGGGCTCTGTACAATGCTGGCGTTGTGGACCTCGTTTCAAGAAGC
AACCAGAGCCCTTCACACTCGCCTCTGAAGTCCTCAGAAAGCAGCATGAACTGCAGCAGCTGCGAGGGCCTCAGC
TGCCAGCAGACCCGGGTGCTGCAGGAGAAGCTACGCAAGCTGAAGGAAGCCATGCTGTGCATGGTGTGCTGCGAG
GAGGAGATCAACTCCACCTTCTGTCCCTGTGGCCACACTGTGTGCTGTGAGAGCTGCGCCGCCAGCTACAGTCA
TGTCCTCGTCTGCAGGTGCGGTGTGGAGCATGTCCAGCACGTCTATCTGCCAACGCACACCAGTCTTCTCAATCTG
ACTGTAATCTAACTGTGTTGTGCTTTTGTGGACTTGGCATGTTTCCATGAACTGCAGTATTATAAACTATTAAAA
TGATAGATGTTGGAGAAAGTAATTATTCCAACACCCATCTGCCCATGCGATGTTAAAAA

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FIGURE 1372

MLCYVTRPDAVLMEVEVEAKANGEDCLNQVCRRLGIIIEVDYFGLQFTGSKGESLWLNLRNRISQQMDGLAPYRLK
LRVKFFVEPHLILQEQRHIFFLHIKEALLAGHLLCSPEQAVELSALLAQTKFGDYNQNTAKYNYEELCAKELSS
ATLNSIVAKHKELEGTSQASAEYQVLQIVSAMENYGIEWHSVRDSEGQRLLIGVGPEGISICKDDFSPINRIAYP
VVQMATQSGKNVYLTVTKEGNSIVLLFKMISTRAASGLYRAITETHAFYRCDTVTSAVMMQYSRDLKGHLASLF
LNENINLGKKYVFDIKRTSKEVYDHARRALYNAGVVDLVSRSNQSPSHSPLKSSESSMNCSSCEGLSCQQTRVLQ
EKLRKLKEAMLCMVCCEEEINSTFCPCGHTVCCESCAAQLQSCPVCRSRVEHVQHVVYLPHTSLNLTVI

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FIGURE 1373

ACATGACGGGCACGCCAGGCGCCGTTGCCACCCGGGATGGCGAGGCCCCGAGCGCTCCCCGCCCTGCAGTCCGA
GCTACGACCTCACGGGCAAGGTGATGCTTCTGGGAGACACAGGCGTCGGCAAAACATGTTTCCTGATCCAATTCA
AAGACGGGGCCTTCCTGTCCGGAACCTTCATAGCCACCGTCGGCATAGACTTCAGGAACAAGGTGGTGACTGTGG
ATGGCGTGAGAGTGAAGCTGCAGATCTGGGACACCGCTGGGCAGGAACGGTTCGGAAGCGTCACCCATGCTTATT
ACAGAGATGCTCAGGCCTTGCTTCTGCTGTATGACATCACCAACAAATCTTCTTTCGACAACATCAGGGCCTGGC
TCACTGAGATTTCATGAGTATGCCCAGAGGGACGTGGTGATCATGCTGCTAGGCAACAAGGCGGATATGAGCAGCG
AAAGAGTGATCCGTTCCGAAGACGGAGAGACCTTGCCAGGGAGTACGGTGTTCCCTTCCTGGAGACCAGCGCCA
AGACTGGCATGAATGTGGAGTTAGCCTTTCTGGCCATCGCCAAGGAACTGAAATACCGGGCCGGGCATCAGGCGG
ATGAGCCCAGCTTCCAGATCCGAGACTATGTAGAGTCCCAGAAGAAGCGCTCCAGCTGCTGCTCCTTCATGTGAA
TCCCAGGGGGCAGAGAGGAGGCTCTGGAGGCACACAGGATGCAGCCTTCCCCCTCCCAGGCCTGGCTTATTCCAA
GAGGCTGGTCTTGAATTCTGAGCTCAAGCAACCTGCCGGCCTCGGCCTCCCAAAGTACTGGGATTACACGCAGA
AGGCACCATGCCCAGGCTAGATGTGTCTTATCCCAATCCTTTGGCAGGCATGCAGCTCCACAGGCGATTTCTTCA
AGCAGCTGAAGTGTGTTAGCCCTCCTGGGTTAAGAGCCAGATAAGGAGAAATCCCTTTTCTAGGTTTGGAATGTGT
TGTGAAAAAAAAAGAGAAATCCCTGGCTCCTGGAGCTGGTGGGAGACAAGATTAAGCAAACCTCCCCTGACATGTA
TCCCTTTGACCCCAAGCTCTGCCTCCTCCCTGACCACCCATGCCCTTTCCTTTAACTTCTCAAACAGATACCAGG
GCCTAAACTGCTTTACCTCCCCTCCTACTGAGTCAGGTTAGGTGGTGGGAGGTCACCCATTTCCGAGTTAAACCA
ATGCAATATGAGTAAACAAAGTCATGTGGGTATGTCTGGGGTAGAGAGAGGGGTAGCAAGTTCATGTGTCTCTCC
TTGGTCACATATCTCCCAAAGCTCCGATCCCTGCCATGGGAAGTGGACAGGAAACATGAGGTTCATGACCTGCAGG
CATCTTTACTGCAGCTCTGCCGGCCTGGAGGGGGAGAGGGGGAGGAAGAAGTATGCGCTGCACATTTCTGAGGCT
ACTGCATTTGCTTTCAAGGCAGAAATCTTGCTCTGAGCAGTCAGCGGCTCCAGTTTGGGCCCCGATAAGGAAGTTC
TCCGTGGCCTCCCTCAGGCAGAGCAGGGAGGAGGCTGACATTGCCAGTCTCTTCTGGGGCCCCAAGGCAGGTTGCA
GGAGATCCAATCCCATAGACAGCTCTGGGCCTCTTGCAATTTGAGTTTTTTCAGAATTAAACTGCAGTATTTTGGAA
AGCAA

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FIGURE 1374

MTGTPGAVATRDGEAPERSPPCSPSYDLTGKVMLLGDTGVGKTCFLIQFKDGAFLSGTFIATVGIDFRNKVVTVD
GVRVKLQIWDTAGQERFRSVTHAYYRDAQALLLYDITNKSSFDNIRAWLTEIHEYAQRDVVIMLLGNKADMSSE
RVIRSEDGETLAREYGVPFLETSAKTGMNVELAFLAIAKELKYRAGHQADEPSFQIRDYVESQKKRSSCCSFM

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FIGURE 1375

CGGGCGGGTACTCTGTGCCCCGCGTCCCGGAGGCAGCCGACTGCGCCACCCACCCTCGCACGGCCGGGCGGGAC
CCGCGCCACCAGCCCGGACCTCCGTCTGTCGCCGCGGACCAAAACCCCGCTGGCCCCACCGCTGTGACTACTCT
GGA CTGCCCCGAGAGTTTGGCCGCCGGGAGGGTGGCCGATTGGCGGAGCGCACTCCTGCTGTTTTCCCCACCA
TCTCGTGGATGTCGTCCCTCGGGTGGTGAGAGAACTTTGCAGTGGGCTGGAGCGCCCTTTGCGGAGAAGCACACG
AAGGTGAAGGAAGGAAAGAAAGAACCGAGGAAGAAGGAGCTCGGAAGAAGGGTCCGGAGCGGCCGGTCCGGCC
GTGCAGGGCGAGTGCGCCCCGAGGCGCGGCCCTGATGCTCCCCGGGCTCGAGGAGCATTGGGCACTTGCGGGAC
TGCTCTCGGTGGAGTAGCCCCGTGCGGGCCCGAGGGTTTGTGCAACCGCGGAGAACACCGAGTGCTGGTGCACG
GGGCGTGCCGAGCCGCTCCCGGCGCGCCCTCCGCACTTTCCCCGCCCTCGTCATCCGTGCTCCCGGCCAGGAG
CCTCCGCTGCGTCTTCAACCTCGTCCCTTTGCGTCCCGGGAGCCTGCGAGCACCCGGCCGAAGGCGCAGCCGA
ATCTTGCGGGAGTCGCCCCGAAAGCGTCGGGTTTGTGTGGGGTTAGCGGGGGCCGCCGCGCCACCTGCACCTCGC
CCGCCGCCGCTCGGGGAAAGCCGAAGAGGAGGCGGACCAGGAGAAGAGCAAAGAAAAGCAGTCCGTCTGGATT
TGTTTGCCAGGACTGGCGCCGCGCACGCGGATCGCCGAGGGGAGTGCGGTGCGAGTCACCGCGCCCCCGCTCC
CCGCCCGGGCAGCTGAGGCCGGGGTTGGAGCGCTGCCCCCGCTACAGTCCCGAGCGCCCCGACGTCTCCGCGC
AGGTTCTTGAAGCAGCTGGGCCTGGGGCGCCACTAATGTGGCCCTGAGGGCCGGAGCCCGCACCGACGGGAGCG
GGAGCCGGAGCAGCTGCGGGCGCCGAGTGCCGGTGCGCCCGGCGGAGCGCGCTGCGTGGCCAGCGCGCTCCCC
GCTTCTGCTTGGCTTTCCGGCTTAATTTTCTCGGCGGGATTAAAGTTGGAAATTGACCGGAGAATTGAGTTGCC
GGGGAACAGAGCCCCGGCCGCCAGAGCGATGTTCCCGCAGAGCCGGCACCCGACGCCGACCGAGGCTGCAGG
CCAGCCCTTCAAGTTCACTATCCCGAGTCCCTGGACCGGATTAAAGAGGAATTCCAGTTCTGAGGCGCAGTA
TCACAGCCTTAAATTGGAATGTGAGAACTGGCAAGTGAAAAGACAGAAATGCAGAGGCACTATGTGATGTATTA
TGAAATGTCATATGGATTAAACATTGAAATGCACAAACAGACTGAAATCGCCAAGAGATTGAATACGATTGTGC
ACAAGTCATCCATTTCTGTCTCAGGAACATCAACAACAGGTGGCCAGGCTGTTGAACGTGCCAAACAGGTGAC
CATGGCAGAGTTGAATGCCATCATCGGGGTACGTGGCCTACCAGGTCTACCTCCTACACAGCAGCAGTTGCAAGC
TCAGCATCTTTCTCATGGCCACGGACCCCCAGTTCCCCTTACGCCTCACCTTCGGGACTTCAGCCTCCTGGAAT
CCCGCCCCCTCGGGGGCAGTGCCGGCCTTCTTGCGCTGTCTAGTGCTCTGAGTGGGCAGTCTCACTTGGCAATAAA
AGATGACAAGAAGCACACGATGCAGAGCACACAGAGGTGAGAGGCCGGGCAAGCCAGATTAGGACTTTGTCTCT
CATACTCTTACAGTGCTGCAAAGTTGTGTGCATCGCTAAAGAGAGCCCCAACCTATACAGAGAGCAAAACAATGAG
ATAAGAGGAAGTGTGCAAAGCTTTCCACTGAAACACAGGTACCCTGGAAGTTTGCAGGGTTTGTGTGGGCAT
CTGTAGATTTCTCGATCTCGTTAGATTGCAGGCATCTTGACATCTTGGCAACTGCCTAGTTAATGCCAGTGGCCT
GTACCATATTATGGAAAAGTGTAACTGCTTAATTGGGTAATTTTCAAAGAAAGTAATGTTGTTAAATGGGGCGA
AATAAGAAGTTAAATTTGAAAGTGAATGTGTTCAAATGAAAGTTTGATAATTGCGTCTGTTACTACTTAGTTTC
ATAGGCTTTAATTTCTAGTATGCATTAAATATTGGGCAAAATTGCACTTGACTAATTTTTTGAAGAAAAGTAATTT
ATTCTGTCAAGAAATAAAAAAATAGGCTTTGTGTATGGTTAAACTGTAAATCTTATGTTTACAAAATACTGTAAT
TTTCAGGAAATCACTGTATTAGGAATGTGCAATGACTTATATAAATAAAAGCCATTTTTTAAACTGAAAAA

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FIGURE 1376

MFPQSRHPTPHQAAGQPFKFTIPESLDRIKEEFQFLQAQYHSLKLECEKLASEKTEMQRHYVMYYEMSYGLNIEM
HKQTEIAKRLNTICAQVIPFLSQEHQQQVAQAVERAQVITMAELNAIIGVRGLPGLPPTQQQLQAQHLSHGHGPP
VPLTPHPSGLQPPGIPPLGGSAGLLALSSALSGQSHLAIKDDKKHHD AEHHRGERPGKPD

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FIGURE 1377

GCAATTGGTGGCTTTGAAGGCGCGGCGAGCGGGAACAGCTCTTGAGGAGTGAGACTGCAGGAGATGTGGGCCGTG
CCAAAGAGATGGATGAGACTGTTGCTGAGTTCATCAAGAGGACCATCTTGAAAATCCCCATGAATGAACTGACAA
CAATCCTGAAGGCCTGGGATTTTTTGTCTGAAAATCAACTGCAGACTGTAAATTTCCGACAGAGAAGGAATCTG
TAGTTCAGCACTTGATCCATCTGTGTGAGGAAAAGCGTGCAAGTATCAGTGATGCTGCCCTGTTAGACATCATT
ATATGCAATTTTCATCAGCACCAGAAAAGTTTGGGATGTTTTTCAGATGAGTAAAGGACCAGGTGAAGATGTTGACC
TTTTTGATATGAAACAATTTAAAAATTCGTTCAAGAAAATTCTTCAGAGAGCATTAAAAAATGTGACAGTCAGCT
TCAGAGAACTGAGGAGAATGCAGTCTGGATTGCAATTGCCTGGGGAACACAGTACACAAAGCCAAACCAGTACA
AACCTACCTACGTGGTGTACTACTCCCAGACTCCGTACGCCCTTACGTCCTCCTCCATGCTGAGGCGCAATACAC
CGCTTCTGGGTCAGGCGCTGACAATTGCTAGCAAAACCCATCAGATTGTGAAAATGGACCTGAGAAGTCGGTATC
TGGACTCTCTTAAGGCTATTGTTTTTAAACAGTATAATCAGACCTTTGAACTCACAACTCTACGACACCTCTAC
AGGAAAGAAGCCTTGACTAGATATAAATATGGATTCAAGGATCATTATGAAAACATAGTAGAAAAAGAGAGAG
TCCAACGAATAACTCAAGAAACATTTGGAGATTATCCTCAACCACAACCTAGAATTTGCACAATATAAGCTTGAAA
CGAAATTCAAAAGTGGTTTTAATGGGAGCATCTTGGCTGAGAGGAAAGAACCCCTCCGATGCCTAATAAAGTTCT
CTAGCCCACATCTTCTGGAAGCATTGAAATCCTTAGCACCAGCGGGTATTGCAGATGCTCCACTTTCTCCACTGC
TCACTTGCATACCCAACAAGAGAATGAATTATTTTAAATTAGAGATAAATAAGACGTGCGTGGTTTTCTTAAGCA
CAGCTCCTCCTTCTTGATATTGCACATGCACTTCAGTTCATGGGCTAGCTGTATAGCTTNCGTCTGTAACTTGT
AATTTCAAGAATCCTTGGTATTGAATTTTAGAAATGCTCACATAATTGTTGGGACTGATTCATTCTCCACGGAT
ATGCCTCCTCTCTCTGATATCCTGCTAACTGTAGCCGTTGTGGCATTGAGATGACAGGACATATATATATATGG
CCCCACACTTGACCTTGAGTGCCTGAATGCTCTGAAATCAAGCATATGGCACAGCGCTCAAGACTTTTGGGTTG
TGTCTTTTTTCTATGGCTGTCTCTTCTCAATTCTGGAGAGGTCTGGTTCCAGTGGCTGGTTTCCAGGGATTGAT
TCTTAAGCTCTGGATCACAGAGAGAAGCAACAAGGAACCTATACTCAACTCAAACTTTTTAGGAGAATCATGAAA
TTGGTCTATTCAAAGGATGGAGTTGAGTCCATTCTGTTATTGTTGCAAGAGGTTGCATATTTGGTGAGTCAGTTA
TATAAATAGTGTTCTTATTGTAAATATGATACTTCTCATAATCTATTTTATCATGTGTATAACATTCAAACCTGA
CAAATATATTGACTTATGAATAAAGGTGTCAAAAAACTGGCACATCAGTTAATTTTGATCAAAGTACTTCAGTGA
TCATCACTAAATACCCTATCTTTTTTAAAAANNN
NN
NNAATGACATCACTTTGGTTCAGAGCTCTAAATGGAGGGAGGAAGCCATTCTAAAAAGGACTCCCTACATGACC
TGCAACTTGAAAAAAATTAAAGCTCCAAAAAAAACAATACAGGAGCTTACCTTGAACCTTTGAATTGGGCC
AAATTGCGATGACCACTGCATCCTGGAAAATTTATTTACCAGCACTACAACCTCCTCAACAGCACCAACCAATA
AACTATGGATTTTTGTACTAAGCCAGTTGCCTCTTCAAAACAACCTGTCAACTGTCTAATCACCTCAGCTTT
TTTTAAAAACCCCTCCTCTACCCTCTCTCTCAGAACACAAGTGGCTTCTAGCTGAATCTGTCTCCCAATTGCA
ATTCTTAAGACCTCAATAAAAAACACCTTGCTTGCTGAAAA

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FIGURE 1378

AIGGFERGEREQLLRSETAGDVGRAKEMDETVAEFIKRTILKIPMNELTTILKAWDFLSENQLQTVNFRQRKESV
VQHLLHLCEEKRASISDAALLDIIYMQFHQHQKVWDFVQMSKGPGEDVDLFDKQFKNSFKKILQRALKNVTVSF
RETEENAVWIRIAWGTQYTKPNQYKPTYVVVYSQTPYAFTSSSMLRRNTPLLQALTIAKHHQIVKMDLRSRYL
DSLKAIVFKQYNQTFETHNSTTPLQERSLGLDINMDSRIIHENIVEKERVQRITQETFGDYPQPQLEFAQYKLET
KFKSGLNGSILAERKEPLRCLIKFSSPHLLEALKSLAPAGIADAPLSPLLCIPNKRMYFKIRDK

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FIGURE 1379

CCACTATTCCACAGGGAAGGTCAGCGCTTCCTTCACCTCCACCGCGATGGTCCCGGAGACCACACATGAAGCAGC
TGCCATCGACGAGGATGTGCTGCGCTACCAGTTTGTGAAGAAGAAGGGCTACGTGCGGCTGCACACCAACAAGGG
CGACCTCAACCTGGAGCTGCACTGCGACCTGACACCAAAAACCTGCGAAAACCTTCATCAGGCTTTGCAAGAAGCA
TTATTACGATGGACCATCTTCCACAGATCCATCCGGAACCTTGTGATCCAAGGGGGCGACCCACAGGCACAGGC
ACGGGTGGGGAGTCATACTGGGGGAAGCCCTTCAAAGACGAGTTCCGGCCCAACCTCTCGCACACGGGCCGCGGC
ATCCTCAGCATGGCCAACCTCCGGGCCAACAGCAACAGGTCTCAATTCTTCATCACGTTTCGCTCCTGTGCCTAC
CTGGACAAGAAGCATACCATCTTTGGACGGGTGTGTGGGGGCTTTGACGTACTGACAGCCATGGAGAATGTGGAG
AGTGACCCCAAACTGACCGCCCTAAGGAGGAGATCCGCATTGATGCCACTACAGTGTTTCGTGGACCCCTATGAG
GAGGCCGATGCCAGATTGCGCAGGAGCGGAAGACACAGCTCAAGGTAGCCCCGGAGACCAAAGTGAAGAGCAGC
CAGCCCCAGGCAGGGAGCCAGGGCCCCCAGACCTTCCGCCAGGGCGTGGGCAAGTACATCAACCCAGCAGCCACG
AAGCGAGCAGCAGAGGAAGAGCCCTCAACCAGTGCCACTGTCCCCATGTCCAAGAAGAAGCCCAGTCGGGGTTTT
GGGGACTTCAGCTCCTGGTAGCAGCAGGCTGCCTGATGACCACTAGAGGTATGTCTGCCCTCGTCACCCCTGCTG
CACACCAATCTGTGGCCCTTCATCATGCTAAGAACAAGAAGTGCGCCATGGCTGGCTCCTTCTCTTCTCCAGCCC
ATCCCTCTGCAGCCTGTCTCCTGTCTGTGACCATTTGGTCGGGGCCCTGGGCTCTAGAGTGACTTTTTGACGCC
TCCATCCCTCCCGCCAGGCACTGTCTCCGCAAGGCCTGGTGCAGCCCTGGCAGTAAGTGGCTTGTAAGAGGCTC
AGACACCAAGCTGGGCCTGCAGAGGAGGGGCACAGTAGGACACAGTGACTGCCAGGTGTCCACACACCTGTAGG
CCTCTGAGCCAGCGTCCAGGGTACAGATGCGGGTGGTGGGGATGAAGGCCTGACCAGGGAGGGAGAAGCAGGTTT
GGAGAGGACCCTGTGCCACCCTGCAGACACCCTGGCTGGCCCTGACTGACTGTATTCTCTGGCCACATTCAAG
TCCCCCATTTGGTGGGGGCAGAGAAGTAGGACCAGGCCGTCTTGGCTCCAGAGCTCGAAGACCCCAAGACAGCCC
TCTGCTCTCAGCGGCCACAGAGAGCCTGGGCTCAGCCTTCTGCATCAGGACATGGCCTCGTCCACTGAGGGCA
CGATTTAAACATTTGACATCAGAAGCTTTATTTGTAAACCTCACACAGATAAGGACCAAGGGCTGGCGGTGTGGC
CAGAGGACAGGGGAAGCTGAAGGCCCGTGTCTGAGCTCGGCAGTCTCTGCTCCTTGCAAGTGAAGCCACCATGGGT
GACCGTCCAGCCTCACCCGGTGGCCTGCACAGTGAGGGAAGGGCTTCAGGGCCATCTGCTCCAGGGCAGGGGAC
AGGCCACCAAGGACCTTTGGCAAATGAAGGTTTACATTTCTGTAGTTTGTGTTTGTAGAGCTTAATTTGTAGTT
TTTTAGCTATTAAACCATTTGAATTTTTAACGACCTGATGAGGGCATCAGGTAAATTAAAGGATTTTGGGAAGA
TTCTTATTTTCAATTCTAATATCTGACAGATGCCATCAAGAATAAGCATTAAAGGTATAAAAAATACTGTGTGTAT
AAAACAATGCCAAACCACATTCTACAGCAAATGCACTGTGCCATTTATAACCCTGACATCACCTCCCAAGGCTC
TCAAGGAAGATTTATTTTAAATAACTTAAATAGAAGTCCTAGATGATATTGTTTAGGAATTTAAGAGGGTGGTGG
ATATGGTCCTGTGAATAGCACTTCCCTGAAGCCAGCTCATGGTCTGTTTCAATTTGGTTTAAAAATGAGCTTGTAT
TTTGCAGAAGCCCAACAAAAAAAAGTGATAAAAGTGTTGTTGGTATNNNNNNNNNNNNNNNNNNNNNNNNNNNN
NNGTCATAAGACTACTAGTAAAAAATGTTCAATCAATGCCGTCACAAAGACAGTACAAAAACCAAGTGCCCAAAT
AGAAGGAGCAGCGAACTTGCCCAAACAGAAAAGCTCTAAATAGAAGTTTAGTATATACAAAACCACTCGGTAGAG
TTTTAGAAGTTTCTTCCATGTAAGTGAAGCATCTTGAGTCACTCAGACTT

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FIGURE 1380

MANSGPNSNRSQFFITFRSCAYLDKKHTIFGRVVGGFDVLTAMENVESDPKTD RPKEEIRIDATTVFVDPYEEAD
AQIAQERKTQLKVAPETKVKSSQPQAGSQGPQTFRQGVGKYINPAATKRAAEEEPSTSATVPMSKKKPSRGFGDF
SSW

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FIGURE 1381

GAGGCTTTTCAGCCTCATTGAGGTACAGTTACATATCTTTGCTTTTGCCCCGTGCATAGCTATCTACAGCC
AATCACAGATCACAGAGTCACTGGACTATAGAGCTGGAAGGAAGCTCAGAGACAATGCCAAGGGGCAGAAAATT
TATCAGAAGCCAGTCCCAGTGCCTTTCTCCATTCTCTTCTGCAGGAAGACTATTTGGGCTGCCTGAACATTGT
ATCAAACCTGCTACCTATACTATGGTCTACCTTTCTCCAGTGAATTACAAAGGCACTAACTGAAATGCCTTCT
AGAAACAGAGAAAACGAACTGTACTTATTTACTCTTGATACACAGATTATTTATAAAACAGATTGAAGTAACCT
GTTAACTGGCAAAAAGAGAATGAGATCGGATTTAAATGTATGGCAGTAAGTCCTATTGATCCCTCCAGTTATCTC
AGTATGACTGCAGTATATTCATTCACTAAAACCACTCACTAGATACCAACTACACATCTGGCACTGCAGATGTAA
AGGTCAGTCACACATGTTCTGACTTTACAGAGTTACAGTAGCAGTGGAGGATGATATATGTGGAAACAAAAAG
GCATTGATTCTATTACAGAGCACTGTTAGGGCTCAAAGGAGAGAGGGGTCTTTCCACCTAAGAAATGAGGAATAGG
GTCATCATAGAAGTGACCTTAAGTCTTAAAAATTAAGAAGGGGATTCCAAGCTGCTTCAGACAGAGACACATCGA
GCTAAAACACAGAGGTATGAAAGAGCACAGGGACTTTAGGAATTGCACAGTTTATTCTAACAGGAACAAAAAGCT
CAAGGGGGGCAAGAAATGAGGCTGTATGGAAAGAGATTCAATGTAAGCACTTTATAAAATAGATTAATTTCTGAT
TCAATGAAGCATTTCTTGATCATTGTGTACAAGGCACATACATGCATCATGGAAAATTCATTAGGATGCATTGCCA
GCACTTGCAAGACTGATATTATTCAGCCTCAAGCTTTCCAGTGGCCAAAGGGAAATGCTGACTGCTTTTCATATA
TTTGAGTCAAAGATTTTTTATATGGTCAATGAAGACTAATATAAGGGCAGTGGGATTTTCACAGATGCATGCCAT
GTTGTCGAGAGCCTCTTAGATTTTCTCACTGTGAGAAAGAAAAACGAAATGTTGAAGACGTTGAGTCTGGAGA
GGGGATACTAATCACTGTCCAGTTGGGCACTGGTGGGAATGGGGAATGGCACAGGAATGCAAGCCTCTCCACCC
TACCCCCGAACTCCAGCCATACACTCATCGTTTCACAAAATATAAATGAGTTAGCATTAAATGTTTCAGAGTAA
ATAATTCCTTTTCCCGAAATGCATGAAGATAGAGTAACAGACTTCTCACACTGTATTTTTAGGGTATGGAGAATT
TAGAAGGTTAAAGAATTACTGCTTCAATTTTTTCAAGTTAAAAAAAATCAGGAAGCTCTGTTTATTAGGCTATGC
ACCATGTGCACAGTCAAGAATTAGCAGAAACCTCTGCATTTACAAACACTTTGTGCTATAAAAAAGTAATTTTT
AAAAAGCCACGTGTGTGTGTGCTATATCNNNNNNNNNNNNNNNNNNNNTCTAACACGCCAAGGTTTTTGATACTT
TTTTACAAAACACTACAAGAGAAAACAAATATACCTGTCCAAACCATATACTTTTAAAGAGCATTTTTTTTTCCA
TACAAGCTGTTGTTAATTTGGGGGTAAAGTGCTGATTGCAAACCTTCATCAAATTGTTCCCAAGTGGATTCTCCT
TGTTTGCTCTCCCCCTACCAACCCCAAAGTTACCATATTTGATGTAAGAATCAGGCATGTTAGAATGTTGTGTCAC
ACTAACTGATTCTGCTCTTTTTGTCTTGTCTATTCAAGTTCCGTTAGCTTCTGTACGCGGTGCCCTTTGCAGTCTG
GTGTCTCTTCCAGAGGCGAGGGGGCTGAGGATGGGGTGCTGCATCTCACTAGCTATACTGGCATCATCTTGGTAA
ACATTCATTCCCATGCCATTGGGGTTGCTTTTGCCAAGGTCTCCAGGACCTCCTCGATTATAAATCTGGTAAAC
ATTTTCAGTCTTGCTCTTCTTGACCTGAAAGCTTTACAAAAGTACCAATGCCCAGGTCCAGCGCTGGAGATNN
NN
GAGAATTACTGCTCGGTAAGTGGGATGACTGGGGAGTGGGAGATCAAATACTCTAACGTCTCCCAGCACCTATTCT
TAGAGATCAGTGGGGCAGAAAGGTAGAAATAAAAGGTGGAAAGGGATGAAATGGGTAAGTGTGGGTGAATTAGTT
CCAGGAAAACGGCAATCTCCACTGTGGATTCAAGGAAGGCGTCACTGAGGAGGGCTTTCTTAACAGTTCAGGTCA
GTGGAAGCCAACCTGAGGCACACATCGTGCGCGGCATCCTCCGGGGAGGTGCGGTCAATTCACCCCATTTACTG
CCGAGATGACCTAGGTCCAGAGACGGTAAAGAGCGGTGTACGACTCACACAAGTCGGGGGTCTGTGAACCGAGG
TTGAGCCTGGCGGGCCTTCGGCCCGAGGTCTTTAAGCGAAGTCACCAGACCCGGGGTTCAAAGCCCAGAGGTAGG
CAGGCGGTGGCTCTCCGCCTCAGGCCTGGAGAGAACCCAGGGGTATGAACCTCAACCTCGCTCCCGCGTCCAGC
TGGAGGGGCGGAGCTGGCTGGCCCCGCCTCCGGGTAAACAAAGTTCTTTACAGACTAGGCGTGAGGGGATGTTG
CAGTCTTGTTGCCACTTCCGGGCGAAGAG

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FIGURE 1382

GFSASFEVQLHIFCLLPCCIAIYSQSQITESLDYRAGRKLKRDNAKGAENLSEASPSAFPPFPSAGRLF~~WAA~~

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FIGURE 1383

GCCGCATTCCCGGTGTCGACTTACTAGCTGCAAGCCTCTGCCTGCCTTCCTGCGCGCCGTTCCCGCTAGTCGCT
GCTGCTGGCGCGCACTCGCCGGGTTTTTCCTCCACGGCCTCGAGATGGTGGTGAATGTGGCACGGAGGAGCCGG
GCCTTCCAACCCGGTGGGCCCGAGCTCCGAAAGGCCCCCTCGGCAGTGAGAGGGGCGGGAGCCCGCGGGGGCCGC
GCCCTTCTCTCGCTTCGGACTGCGCAACGCTGCGCTCTGGGCTGACAGGCGGATTAAAACGGTCCCATCAAGACTG
AGAAAAAGCACACCAGCTATTGGCACAGCGTGGGCAGTGGGGCCTACAGGATGACTGACTTAGTCTACAGAGATC
CCGGCGTACTTAAGCAGGTAGTAATGATGGACAGATGAAGACTCTTAAGATGACAGAAGGTGATTTTTCTGGTGA
TCGAGGACTTCCGGGGTAATGACAGTGATGAAATGCAGGGGACCTGGTTGCCCCAAGTTTCCTGGCAGTGTGTG
ATACTGAGGAGGTGAGCTTGTTTTCTGGAGCTGTGCTTTAAGGTAAAGTTGATCAGCTTAATCCTCCTGATCCCTT
TCCCATCGGATCTGAACACTGGTCTTGGTGGTTCGTAAGGAGGAAAAGTAATAGTGAAGCTGGCCTAAATGTTG
TAATCTGGTATATGGCATGTGGGCTAGTTTCAGACAGGTTTCAGAGATGGTTGGATCTCTGAAATTGTAAATGA
AGTATAATCTTAGGCTAAGGGAAGGATGCGTGTGAAGCTCTGGAGATTCATGTTACATGTAAAGCTGTCCTCATT
TGTGACTATGGACCTATGGAGTTGGGACAATCTCTATGGGAAGCAGAAGGCAAGGACCCCGGTCATTTTAGGTAG
AAACAACAGCATGCTAATGCAAAAATTATGCAGTGTGCTACTGAACTTCAGAGGTGATCAATAAAAGAAGAATA
AAAAGACT

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FIGURE 1384

RIPGVDLLAASLCLPSCAPFPASRCCWRALAGFFLPRPRDGGECGTEEPGLPTRWARAPKGPLGSEGGSPRGPR
PSLASDCATLRSGLTGG

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FIGURE 1385

GGCTCCTCCTTGAGGGAGAGAGCTGAGGAGGTGGCATTCTTGCTTCCCTGACTCACCCAAAGGAAGATTTACAG
 CCCCTTGGCTGGGTGGGGAGTTATGCTGGGAAGTCTTCCAGGCCCCCTGGGGGTGGGAAGATGCTCAATGTTCAA
 AGGAGATGGAACGAGGAAAACAGTTAAGCAACGATGGACTCCAGGGGGAAAACCGGAGAAGAAGAACTGTAATT
 CCAGTCCGTCCACATGGCCCAGCAGTGAACGACAATTGCATGGTCAGAGAGAGCAAAAGCACCACGCCGACTGAA
 AGCAGCTCGAATGTGGTGGGGCAGTGGGAGATAATGCCCTCATCTACCAAAACAAGATCTGCCACCTTCGCAGAC
 CACTAAACCTCATTCCTCCAGCCAGCTCCCCACCCCATGAAGGCCAACTGACCAGAGAGCAGGGCTCCCGAGGG
 TCGGGTCGGGTCGGGTCGGGTGGGTTCGGGTGGGTGCCTCTTACCCTGAGGCTCTGCCCTGGACTCGGAGTCCAC
 TTGCTGTCAAAGCATGCGACTCTTCTTTCTGATACTTGACATATTTCTTTTCCCGTTCAATTCATGGTTTTCTGCC
 CAAACGGAGCCACGTGAGGACGTCTTTGGGGATGTGTCTCCAAGAAAAGTGTGGGCTGCCTTCCTCACCCCTGGAT
 GCCTGTGGGCTGCCTTCCTCACCCCTGGATGCCTGTGGGCTGCCTTCCTCACCCCTGGATGCCTGTGGGCAGCCTTC
 CTCACCCCTGGATGCCTGTGGGCTGCCTTCCTCACCCCTGGATGCCTGTGGGCAGCCTTCCTCACCCCTGGATGCCTG
 TGGGCAGCCTTCCTCACCCCTGGATGCCTGTGACTTGGTTTCCATGGGGGCTTCCTAAGCTCAGGGACCCCAAGCC
 TCCATCAAATCTAATGACCCGCCTTGTCTCTGAACACACCTGTGTTGTCCCGAGCCCCCTACCAACCCCCCTCTG
 CAACCCGGCCCACGCATTTCCCATCCTGAAGGGTCCAGCTCATAGGCCGGCCCATGTGTTCCCTTTACCCCTGCT
 TTGTCCCTACCTGGTGGGGAGCTGTCCCTTCTGGGCCCTAGTGTGGCACTTCACACACAAATGTGTCTCTGTGGGT
 GGTATCTGGGCCTCCCCCTGCAGTGAGGGGATTGACCAATGTGCAGAGCTCACTGGGCCTGGATATGGGCTCGGGT
 GGCACAGAACAGAGAGAAAGTGCTCCGTAAAAGTGAGCTGCGATGCGGAGGTGGGCAAGCTCTTCCCTGGAGGGG
 GAAGAGCTCTCAACCCAGAGGGATCTGACCAGGAAGGTTACCCCCCTCCACCCAGGAAGCCCCTGCAGACAGT
 ATGTGTTTTAGGCTTTGCTGGCCAAATGGTCTCTGCCGTGACTACTCAGCTCTGCCATTGTGGCTGCAGAGTGAC
 CATAGACCTTCTGAAAGTGAATGAGTATGACTGTGTTCCAATAAACTTTATTGACAG

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FIGURE 1386

MRLFFLILDIFLFPFNSWFLPKRSHVRTSLGMCLQEKGLPSSPWMPVGCLPHPGCLWAAFLTLDACGQPSSPWM
PVGCLPHPGCLWAAFLTLDACGQPSSPWMPVTWFPWGLPKLRDPKPPSNLMTRLVSEHTCVVPEPLTNPLCNPAH
AFPILKGPAHRPAHVFLPLLCPYLVGSCPFWALVWHFTHKCVLWVVS GPPPAVRG

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FIGURE 1387

TCGCATTTCTGCAGTGTTTGCACCTCTCAGGCCCCACCATTTCCCCGCATCTCTTAGGGAGAAGTTCTCGACGTCC
CACCTCCCCTGGAAGGGTGCTGCTCCCAGAGACCTTCAGGCCAATGGCCCAATCTCAGTGCCCTCAGGGGAGAGG
GGGGTGCAGAAAAACAGCCTGGGTACAAAAAGAGGTGCGAGGGCTGTGAGATCCCGGAGGCACCGACGGGAAGCG
AGACGGAGAACAGGAGGGGACGAGCGGGCTGGAGGTGGGGGATACTGCAGATGAGGGAGCCACGGTGGGGGAGGG
CGTGAGACCTGACCGTCTTGGCACAAGGCGGTTCGGGTGCAGACCTCCAGGCCCTCCGGGTAAAGGTGCCGCCAGGA
GCCCTCAGGCCGGGGGCGCACGGAACACAGGCAGGGTGCCTGGAGGGACGGGGAAAGCGGGGCGGGTTGGG
GAAGGCGCCCCGGGAACCTGAACCTCCCACCCCGCCTCAGTCTCGACCACTCCTTAAGCCCCACCCGCCCCAGG
TAAGGCGCAGTCCACCCCCATTCCCAGTAGATTAACGCACAGGTGGGGGCGCGCTCGGGACATAGCTGCGCTAGG
GGACAGCGCGCCAGCCAGTCCGGGGGCGAGGAGCAGGGCGGGGCCAGCAGGAACCCAGCTTTGTTAGCGAT
GCTCCCCGTGAGCCACGCGCCACGCTACGCGCTTCTCAATGGGGCCGGGCGTGGAGCCGCGCCCTGCGCGATT
GGCCAAACGGGTGGCCACGATTGGCTGAGACCTTGGCCCCCGCTCCTCGGCCCCAGGAGGGTGGGGCGTGGGT
GTGGGCTGCGCGGCGCGTGTGCCCCCGGGGATCTTGCCTGCGCTTCCCGAACAGCCGTGTTGTCGCCAGGGCCGCG
CCTTCCCTCCCACAGCGCGCGTGCCTGCGCTGCGAAGGTCTGGCGGCTCTTGGGACTGGCGGGGCTGCGCGCGGGGT
TAGGGTGGGGGTACGGGAAGGCTCAACCCAGGACCTGCGTACCTTGCTTTGGGGGCGCACTAAGCACCTGCCGGG
AGCAGGGGGGCGACCGGGAACCTCGCAGATTTGCCAGTTGGGCGCACTGGGGATCTGTGAGTGCCTCCGGGGGA
TGGGCTAGGGGGACATGCGCACGCTTTGGGCCTTACAGAATGTGATCGCGCGAGGGGGAGGGCGAAGCGTGGCGG
GAGGGCGAGGCGAAGGAAGGAGGGCGTGAGAAAGGCGACGGCGCGCGCGGAGGAGGGTTATCTATACATTTAA
AAACCAGCCGCTGCGCCGCGCTGCGGAGACCTGGGAGAGTCCGGCCGACGCGCGGGACACGAGCGTCCCACG
CTCCTTGGCGGTACGGCTGCCACCCTAGGCCTCTATCCCCGGGCTCCAGACGACCTAGGACGCGTGCCTTG
GGGAGTTGCTTGGCGGCGCGTGGCAGAAGCCCCCTTGGGGCGCCACAGTTTTCCCGTGCCTCCGGTTCTCT
GCCTGCACCTTCTGCGGCGCGCGGGACCTGGAGCGGGCGGGTGGATGCAGGCGCGATGGACGGCGGCACACTG
CCCAGGTCCGCGCCCCCTGCGCCCCCGTCCCTGTGCGCTGCGCTGCCCGGCGGAGACCCGCTCCCGGAACCTG
TTGCGCTGCAGCCGGCGGGCGGCGACCGGCCACCGCAGAGACCGGAGGCGGCGAGCGGCCGTAGCGCGGCGCAAT
GAGCGCGAGCGCAACCGCGTGAAGCTGGTGAACCTTGGGCTTCCAGGCGCTGCGGCGAGCAGTGCCTGCGCGGCG
GCCAGCAAGAAGCTGAGCAAGGTGGAGACGCTGCGCTCAGCCGTGGAGTACATCCGCGCGCTGCAGCGCTGCTG
GCCGAGCACGACCGCGTGCCTAACGCGCTGGCGGGAGGGCTGAGGCCGAGGCCGTGCGGCGCTGCGCCCCGC
GGGCGGCCAGGGACCACCCCGTTCGCGCCTCGCCCTCCCGCGCTTCTTCGTCCCGGGCGCGGGGGCAGCTCG
GAGCCCGGCTCCCGCGTTCGCGCTACTCGTTCGACGACAGCGGCTGCGAAGGCGCGCTGAGTCTGCGGAGCGC
GAGCTACTCGACTTCTCCAGCTGGTTAGGGGGCTACTGAGCGCCCTCGACCTATGAGGTAACAGCCGGGAGGCGAG
GGAGGAGGGAGGGCCGGGGCGGGGTGGAGGGACGGGTGGGACAGGCCCGGCGGGTTCGCGCCCCCAGGAGCCCC
CGGAGCCGAGCGCCAGGCCGAGCGATGGCTTCGATTTCGCTCACTCTTCATTTCCCCCAAAGTTTTTCAAGCCC
GTGCAAGACCGCGTTCGTTTGTCCGGGATTGCAAACTTCCCCTCGCGGCTCAGCCGCCGACGAGGGAGGGGTA
GACGAGGGGAGGGGAGCGGCCGTTCGGGCCGTTGAGGTCTCTAGTGCTGGCGGATCCTGGGGCAGATTGGGGTGT
GGAGGCGGGGTGACTTTGCATTGCAATCGCGCTCCCGGGCGGGGCGGCAGAAATGAGTCGGCGGGCGCGGAGC
CCTGACTACCGCGGCTCCGAGCGCCCGCCCCGCCCCGCGTGTCTCAGACCGAGTCGCGGCACCCACGGACTC
AAGACTCCAAAACCAACCGAGCAAACGAACTGCCGAGTTTCGCTTGGGGGAGGTGCGGGCAGGGCCGGCCCCGGC
GGGGTCTGCCCCGGGCGCGCGCGCTTGACGCGCGTTTGGTTCCCCACCTTCCCCCGCAGCCTCAGCCCCGG
AAGCCGAGCGAGCGGCGGCGCGCTCATCGCCGGGGAGCCCGCCAGGTGGACCGGCCGCGCTCCGCCCCAGCG
AGCCGGGGACCCACCCACCCCGCCGACCGCCGACCGCCCTCGTTTCGTCGCGCCAGCCTGACCAATGCCGC
GGTGGAAACGGGCTTGGAGCTGGCCCCATAAGGGCTGGCGGCTTCTCCGACGCGCCCTCCCCACAGCTTCTC
GACTGCAGTGGGGCGGGGGGACCAACACTTGGAGATTTTCCGGAGGGGAGAGGATTTTCTAAGGGCACAGAGA
ATCCATTTTCTACACATTAACCTTGAGCTGCTGGAGGGACACTGCTGGCAAACGGAGACCTATTTTGTACAAAGA
ACCCCTTGACCTGGGGCGTAATAAAGATGACCTGGACCCCTGCCCCACTATCTGGAGTTTTCCATGCTGGCCAAG
ATCTGGACACGAGCAGTCCCTGAGGGGCGGGGTCCCTGGCGTGAGGCCCCCGTGACAGCCACCCCTGGGGTGGGT
TTGTGGGCACTGCTGCTCTGCTAGGGAGAAGCCTGTGTGGGGCACACCTCTTCAAGGGAGCGTGAACCTTTATAAA
TAAATCAGTTCTGTTTACCAGTGGCTCCTATCACCTACACTTCCAGGTGACGGCCAGACTTCCGTGGTCACTAC
TCCTCAAACCCTGCTGCCTCCTCCGTAGGGTGGGTCTGGGTGAGATCTGG

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FIGURE 1388

MEGATVGEGVDLTVLAQGGRVQTSRPSGLRCRPEPSGRGRTEETTGRVVRVEGRGKRGGLGKAPREPEPPTPPQSRP
LLKPHPAPGKAQSTPIPSRLTHRWGRARDIAALGDSAPSPVAGARSRAGEPSRNPALLAMLPVSHAPVRVRASSMGP
GVEPRPARLAKRVAHDWLRPWPPPPRPQEGGAWVWAARRVLPPGILRASRTAVLSPGPRLPSHSARCACEGLAAL
GTGGAARGVRVGVREGSTQDLRTLLWGR TKHLPGAGGAPGTRRFRLGALGICGLRPGDGLGGHAHALGLTECDR
ARGRAKRGGRARRRKEGVRKATAAARRRVIYTFKNQPPAPRLRRPGRVRPHARDTSVPRSLARTACHH

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FIGURE 1389

AAGCTTTCCTCTTTGCATTTTGGCATTGAAAACCTCCGAAGAGCGGTTTTTGTTTTTTATTTAAAGAAGATGATA
CATATGTGTACCCGATTCAAAACTAGAGAATAGAATTTAAACATAATTTTCAAAGTCTTCAAATATGCCTAAAG
GTAACAATGTCATCTTTTAATTGCCAATTTCTCTACCACCTTTCAAAAAATTACTTCCAAGGATTTAATGAGCTCC
TTCCTTTCAACAGAAAATGGACTATTTTCCTTTTCAGATTTACTATATGCTGTCACCTCCAGCTTTATAACCGCATG
TGCATACACAAACATTTCTTTCTCTCTTGCAGGTGGCACAACAGGAAGGGGAAATCTGTGGTTTTAAATTCCTT
ATGCCTCATCCTCTGAGTGCTGAAGGCTTGCTGTAGGCTGTATGCTGTAAATGCTAATCGTGATAGGGGTTTTTG
CCTCCAACCTGACTCCTACATATTAGCATTAAACAGTGTATGATGCCTGTTACTAGCATTACATGGAACAAATTGC
TGCCGTGGGAGGATGACAAAGAAGCATGAGTCACCTGCTGGATAAACTTAGACTTCAGGCTTTATCATTTTTCA
ATCTGTTAATCATAATCTGGTCACTGGGATGTTCAACCTTAACTAAGTTTTGAAAGTAAGGTTATTTAAAGAT
TTATCAGTAGTATCCTAAATGCAAACATTTTCATTTAAATGTCAAGCCCATGTTTGTGTTTTATCATTAAACAGAAA
ATATATTTCATGTCATTCTTAATTGCAGGTTTTGGCTTGTTTATTATAATGTTTATAAACACCTTTGATTCAACTG
TTAGAAATGTGGGCTAAACACAAATTTCTATAATATTTTTGTAGTTAAAAATTAGAAGGACTACTAACCTCCAGT
TATATCATGGATTGCTCGGCAACGTTTTTTAAAAGATTTAGAACTGGTACTTTCCCCCAGGTAACGATTTTCTG
TTCAGGCAACTTCAGTTTAAATTAATACTTTTATTTGACTCTTAAAGGGGAACTGAAAGGCTATGAAGCTGAAT
TTTTTTAATGAAATATTTTAAACAGTTAGCAGGGTAAATAACATCTGACAGCTAATGAGATATTTTTTCCATACA
AGATAAAAAGATTTAATCAAAAAATTTTCATATTTGAAATGAAGTCCCAAATCTAGGTTCAAGTTCAATAGCTTAG
CCACATAATACGGTTGTGCGAGCAGAGAATCTACCTTTCCACTTCTAAGCCTGTTTCTTCCTCCATATGGGGATA
ATACTTTACAAGGTTGTTGTGAGGCTTAGATGAGATAGAGAATTATTCCATAAGATAATCAAGTGCTACATTAAT
GTTATAGTTAGATTAATCCAAGAACTAGTCACCTACTTTATTAGAGAAGAGAAAAGCTAATGATTTGATTTGCA
GAATATTTAAGGTTTGATTTCTATGCAGTTTTTCTAAATAACCATCACTTACAAATATGTAACCAACGTAATT
GTTAGTATATTTAATGTAACTTGTTTTAACAACCTCTTCTCAACATTTTGTCCAGGTTATTCACTGTAACCAAT
AAATCTCATGAGTCTTTAGTTGATTTAAAAAA

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FIGURE 1390

MSSFLSTENGLFSFQIYYMLSLQLYNRMCIHKHFFLSCRWHKPGRGNLWFKFFMPHPLSAEGLL

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FIGURE 1391

GGCCTCCGCCGCCGCTCGGGAGGTGAGGACGAGGAGGAAGCGAGCAGCCCAGACAGCGGCCACCTCAAGGATGG
AATCCGACGTGGTAGGCCAGAGCAGATACTGTCCGCGATTTAATAAATGAAGGAGAGCATTTCATCCAGCAGAAT
CCGTTGTAACATCTGTAATAGGGTGTTCACGGGAGAAATCGCTCCAGGCTCACAAAAGGACTCATACAGGTGA
GAGGCCCTATCTGTGTGACTATCCAGACTGTGGAAGAGCCTTTGTTCAAAGTGGACAGCTCAAAACACATCAGCG
TCTTCACACCGGAGAGAAACCTTTGTTTGTTCAGAAAATGGCTGCCTGAGCAGATTACCCATGCAAACCGCCAC
TGTCGAAGCACCCTACGCCAGGCTGAAGAGAGAGGAGCCACGGACACACTCAGCAAACATCAGGCTGCCGAC
AACAAGGCCGCGGCCGAGTGGCTGGCGAGGTATTGGGAAATGAGAGAGCAGCGCACCCCTTTGAAAGGCAAG
CTGGTTCAGAAGGCTGATCAGGAGCAGCAGGACCCTCTGGAATACCTTCAGTCTGATGAAGAGGACGACGAGAAG
AGAGGGGGCCAGCGCCGCTGCAGGAGCAGCGGGAGCGCCTGCATGGAGCCCTCGCGCTCATAGAGCTTGCCAAC
CTGACTGGGGGCCACTCCGACAGTAGCTTGACACTGACTCTTCCACTGTACAAAAGTACTGCCCAGCATACTT
AAAAAGTAGATCCTTGGGCATAAGCTAAGCACCTTATTTGCTTATCATAGGCTGCTATTCTGTAGAAATTTATGA
AGAAATGTTATTGCCCCAGAATATGGGGTGAGAGAGAACTGCACTTTTTTAATATGGAATGAATTCATCGTAAAG
TTTAAATATTTTGTAAATATGGAAGTGCACAGTACAGGGTAGAAAACACTACATATTGTGGGAAGCTAGATTTTGCA
AGTTTAAATGCATTTCATTGGAAGCAGTTCTCAGAGGAAGCCTTTCTGAATAAGACACTTGTGTTGAAAAACAGAAT
GGTACAAATAGCCAAAGAAGATTAAACAGATTATTTATAAGATCATTTTTAACAATATATATTAGTATGTTTAA
CAATACTGTAAACACTGAAGCAAGCAAGAAAGTATAAAATATGTAAGATAGATAATTTTAATTGCAAAATACTGT
GCCCACTAAGGCTAGAGAAATGGGAGGCTATTTTGGAAGATGTTCTAAGTAATGGACTTAGAAGAAAATAGATAT
TTGAGGCTCTTGTAAGATGCACAATAGTTTCAAGATTTTGAATTTGGAGCAAATCAGTCTTATTCTATCTGGG
GCTTTACAACACTCAGTATAATGTTTAAAGTTTGAAGGCACTTGTCTATCCCTAGCATGTTAACTTGGGAACCTTTGC
ACATTTTCATATTTCTCATTGCTGAAATTTGAGTGATTAATCTTGCAAAGTCTAGGTAACATAGTAATTGGTAATT
TTAAAAATACATATTAAGGGCCCTGTAATGAGATTTGGCACTTGGATTTTTACTAAAGGGACACCTGCAGGGTTG
TTTTGTAGTGAAATGTTTTAGATCTTTTGTTAGCAAACTACATTTTAAATTTGACTGCTTGTGTTAGAAATTTA
GCAATGGAAGCCTCCATATTTATATTTTCACTGTCATAAAGCCACCTTCTTGCTTTACTTCAGAGTAACATGCCA
AGCTATTTTGTGTTCACTAAATTTAGCTATCAGTTAAACACTGCAGAAAATATTAGCTACTCAAATAAGTAGGCT
TCTGAAATAGTTTTAACTGCAAGTGTGTTAACTTGTGTGGTGGTTTGAAGCCATTTTTCCAAATAAAGTTATTAA
ACACCACCTTTATGTACTGAAGCATGAACAGAAAAATCAAGAGCTGAGCAGACCACCTCCTTTATGTAGGCAAAAC
TTCCATCATTTTGGCTTTTGTCTTAAACAGAACTAAATGACATGCATAGCATGGTAACTTACAGATCGCTTAATT
GGAGTAAACTCAGAGTAATAGAGGGAAATATGGGCTCTTCAGTGCCTTTTTAGCTTTTTTGAGTTGAAGACGTT
CCTACAGATGTAGTTTAAACATTACAAAGTAGGCTTCTTTATCCAAAATCCCAATGTGTCTAGTACACAGATA
GTTTAAATATGTAGCCACGGGAAGGGGAGGCATGTAATGTCTTGAAGAGGAGAAAAAGTATGAAAGAAGATA
CGATAGTTACGAATAATGTGTATGATGAGGACATACTTAAAAATGTAATTCCTCTGTACAGTAAATTACAAATC
TTTAGGGATTTTTTGTAAATAAGAGAATTTATATTTGTAATGGTCTAAGAATTTTTTGTAAATGTGGTATATAGA
ATTTTAAATTTGGAGCACTTATAAGCTGGTAAGAGAGACTATAGCATCTGAATTATCTTGGTTTATGTTTCAGCAT
TTCCTCTAGAATTTTTGCTCTCAAATATGTGATTTAATGAACTAAAAACAACACTCATCAGTCTTGGGAAATTTG
AACTTTGATCAACTTAACTAAAGAAGGAAGGGTAGTAAGAATTTTTCAAATACAAATATTTGCCAATTCACAGAT
GATAACATTTAAGGCCTTCAAAGTAAGGGTTTTCTTGTCTCCAGTCAGCTTTTGTCAACTCTAATAGTTT
TTTCATAAACATTTTTTATTTGTATAATTGCAACAGTTTAAAGAAATTATCACAACATTTAGAAACATTTAAAT
GTTCTTTTTGATATAAGCTATATACTTGGAAGAAATACATTGGTATCTAAAATTTGAGGTGTGTTAAGACTGCTTT
TTGTTTTAAAAATGGTTTACATTCAAATTTTTGAAGTGTTTATGCTTCATATGGCTAAGTTGTAGTTTGGCAG
AGTTAACAGCATAAGAATAAACATGCTGTAATTTTTAAAGATGCTTTGAATAAAAAATTTATTTTAAATTT

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FIGURE 1392

MKESIHPAESVVTSVIGCFHGRNRSRLTKGLIQVRGPICVTIQTVEKPLFKVDSSKHISVFTPERNLCLFRKWLP
EQIHPCKPPLSEAPLRQAEERGAHGHTQQTSGCRQQGRGVAGEVLGNERAAHPHFERQAGSEG

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FIGURE 1393B

ATTCAGATTTTGAATCTTTTGGTACCTTTTGGTTAATGACATAGCCTCCTGAAATTCTGGATGTCTTCAAAGTC
AGTTTTGCTTCTTTATCCTGAAAATCAGATTTACAATGCTGAAGGCATTTCTTGGGCCCAGTGTAGCTCACGCAA
TCTCTGCTACCCATAAGCCTTGATGAAGATGATACAGTCCGGACTGTGAGCATGGTGCTTCATGTATATGTGCTG
CCAGTAACAAGAATTTTTTTGTTTTGTTTTGTTTTGTTTTGATAAGGCATAAAAGAACTCATTCTTGACATCA
ACTGTAATCCATCATTCCATGTCTGCGGATACAGACAATAAAAAAATGTTGTGTAGTCAGTACTAATTACTGA
CATTATAAGCATTCTCAAATGCAATAAAAAATGCTGGTTGTTTCACGCTGGTAGTAAAAGTTGCCACAGCCTAAGTT
TGTTTCCCTTTCTGACCTGCTGATATTGTATGTTAGGCATATGCCTTAGGTTTATCACCAGCTGCTTCCAATGCA
GAATTAAAATCAATCTTAAAGCTTTTCATGATCAGGGAAGGCTGAAGCTCTTATCCTCAGGATTTCCAAGTGAAAG
TATCCACTTAGAGAATTGGGAAGTAAAAAAGAGCAAGAGATGTTATCTTTCTCTTGAGGAAGCACACTCT
TATTTTTTTCATCAAATTTTATAAAGAAAAACAAAATGTTTAAATAACTAGCATTAAAGAGCAAACCTAAAATTTAG
AGGAAAAGCAACTTTTCATGAATAATTCATTGAAAGATTTTCACAGTCTGGCAAGATTAGGTCATCCAAATAAAAGTG
CTAATGGTCAAAAACATGCACCGTCTATAATATTCTCATCAAGAAATCTTTTGCATATAATGATAAATGCTTAG
ATTAGAACAAATGATTTTATAAAATATTCTATCAAAAAGTATGCTAGATAATTGCATTTCATTGAAGAAAACAGAA
CTTCAGTACCTAAATATTCCAGAAAAACCATCTTAATTTTGGAGATTTTAAAAAATAATTAGATGCATTTAGGAA
ATGTGCTGTTTCTTTTTAATATTACTCTATAGTATATATTCTAGGGATTAATGAATTTGAGCATCACCTTTCAAT
AAAAAATTAAATTGCCAATATGAAAGCAGTATTTTAAAGTGGCCAAACCGTGGTAACATAAAACCATTACATATAT
AATTCAGAGCACATAATTCAGGGCAAAGGATGACTTGAAAATTAACCTCCAGTCTTTATTCTGCAAAACACCCA
CCGATGCTGAGGATACAAGTGAACATTCTTTCCAGCATTGTTTTGAAAAGCCCATATTAGCAAAGTNNNNNNNN
NNNNNNNNNNNNNNNNNNNNNNAACAAGTAGATTTTGCTATTAAGTTGCAAACTAGTGTCTCTTTGAATTAACAA
TTATGCCCTATCTAGAAACCCCTTAGTCTCAATAATTAGCAAAACATTTGAACCTTTAATTCTCACCTGGCTACT
GAGACTATAATCTTAGGGTTAATTCAAATTCCTGTAATTACCAGGCTTAAACCTAAATACTGCTTACAGCCTATC
CATTAGTAACCATTTAAAAATGTACAGATACTTCTTTTAACTCAACTGGAGGACCTAAACCAAGTATGACGATATG
TTAGTGAAGATTTTGCTGGTTGAGGCATAGTACATTTTAACTTATATTTTCAAGGAATTGTTCTCAAGCAGGAACAC
TCTTTTACATATTTATTTTCAAGGCTTGTCACCTCTCATAAACGAGGCAGCAAACCCAAAATATTGGCTCTTCTTATA
AATAGGCGCCTTTATATAAAGAACATAAAACTCTTAAGACTAATTTACACCAACACAGGCAGCTTCATAATAGT
AACCACCTCTCCCTCCCCACTAAAAAAGATAAAAAACAAAGTATAATTAGTCTTTCTTATTAGATTTTTGTCTTTG
ATGATATTACGTATTTAIGTGTAGGGTAGTAATCACAATTTATCCTTCATCTTCATTGTAGTTGAATCAAATAAA
AGTATTCTTTATTCAAATAATGTGAAGTTGGGTGCTCAAACTTCATTTAATGAATTGATGAAAGGTTTAAAGAC
AAAATTCAGCTTGAGGGAAATTAAGTTACATACAAAAACACTGGTTTTAACTGTGGGACAATATTTGGATTAGA
AAACCATCTCTAGATATAACCTACTTATATTTATTTTAAATGGTATTTTATTTTTTAAATAACAAAACCCAAT
GTTGTCTTATTTCCACTTTGATTGTAAAATGACATTCAATGCTTAATACCAAAATATATATCTATATTCACATTT

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FIGURE 1394

FQLGWRPLCVYWGEGLKNNYPKLFNVLPXXXXXXXXXHYTILSSDLRPPFGPMASWRLKVCTL

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FIGURE 1395

ACGAGGCTGAGCGGGACCTGCGAGCAGCGCGGGCGGCAGCCCGGGGGAAGCGTCCGGGACC**ATG**TCTGGAGAACT
ACCACCAAACATTAAACATCAAGGAACCTCGATGGGATCAAAGCACTTTCATTGGACGAGCCAATCATTTCTTCAC
TGTAAGTACCCAGGAACATTCTGTAAACCAACGAACAACTCGAGAGTGCAGAGAAAATAGTACATGATTACAG
GCAAGGAATTGTTCTCCTGGTCTTACAGAAAATGAATTGTGGAGAGCAAAGTACATCTATGATTACAGCTTTTCA
TCCTGACACTGGTGAGAAGATGATTTTGATAGGAAGAATGTCAGCCAGGTTCCCATGAACATGACCATCACAGG
TTGTATGATGACGTTTTACAGGACTACGCCGGCTGTGCTGTTCTGGCAGTGGATTAACCAGTCCTTCAATGCCGT
CGTCAATTACACCAACAGAAGTGGAGACGCACCCCTCACTGTCAATGAGTTGGGAACAGCTTACGTTTCTGCAAC
AACTGGTGCCGTAGCAACAGCTCTAGGACTCAATGCATTGACCAAGCATGTCTCACCCTGATAGGACGTTTTGT
TCCCTTTGCTGCCGTAGCTGCTGCTAATTGCATTAATATTCATTAATGAGGCAAAGGGAACCTCAAAGTTGGCAT
TCCCGTCACGGATGAGAATGGGAACCGCTTGGGGGAGTCGGCGAACGCTGCGAAACAAGCCATCACGCAAGTTGT
CGTGTCAGGATTCTCATGGCAGCCCTGGCATGGCCATCCCTCCATTCATTATGAACACTTTGGAAAAGAAAGC
CTTTTTGAAGAGGTTCCCATGGATGAGTGCACCCATTCAAGTTGGGTTAGTTGGCTTCTGTTTGGTGTGTTGCTAC
ACCCCTGTGTTGTGCCCTGTTTCCTCAGAAAAGTTCCATGTCTGTGACAAGCTTGGAGGCCGAGTTGCAAGCTAA
GATCCAAGAGAGCCATCCTGAATTGCGACGCGTGTACTTCAATAAGGGATTG**TAA**AGCAGGGAGGAAACCTCTGC
AGCTCATTCTGCCACTGCAAAGCTGGTGTAGCCATGCTGGTGAGAAAAATCCTGTTCAACCTGGGTTCTCCAGT
TACGGAAACCTTTTAAAGATCCACATTAGCCTTTTAGAATAAAGCTGCTACTTTAACAGAGCACCTGGCGTGGGC
CAAGTGCCTGATACTCCCTTACACTGAATCATGTTATGATTTATAGAAATACCTTTCCTGTAGCTTTTATAGTCA
TTGTTTTTCAAAGACGATATACCAGCCCTCACCAGGTTTTAAAAAAGCACTGGTAGGCATAGAATAGGTGCTCA
GTATATGGTCAGTAAATGTTCTATTGATTATCAATCAGTAAAAAAAAAAAAAAAAAAAAAAAAAAGGAGATTATAA
AAGGGATGATGAACATGGAGCTGCATCTTTTTAAACGTTGTTTTTGTGCTTCAGACTCTTAATGCTTTTATAT
AAAGCTATCAACTGTATGTTGATCACAGTTTATAAGAAAGAACAAATCAAGATTGGCAATCCTTGCCGATCTTTT
AGAAATACCTTTTCTGGAGAAAAAAATCCACATGAAGTGCAATAAGCTTATAAAGCTAAGTAGTTATTAATATT
TCTATTAACATGATACAAAGGATGATGATTGTAAGTGTTACTGACTGGCAGCTTTTATTTTCAGTATTAGCACAG
CGTCTTGCCAGTGTGGAGGCCATGTATTATTTAGTTCAACTGGATGAAATGTTAAATAAACTCAGAATGAAAA
AAAAAAAAAAAAAAAAAAAA

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FIGURE 1396

MSGELPPNINIKEPRWDQSTFIGRANHFFTVDPRNILLTNEQLESARKIVHDYRQGIVPPGLTENELWRAKYIY
DSAFHPDTGEKMILIGRMSAQVPMNMTITGCMMTFYRTTPAVLFWQWINQSFNAVVNNTNRSGDAPLTVNELGTA
YVSATTGAVATALGLNALTKHVSPLIGRFVPFAAVAAANCINIPLMRQRELKVGIPVTDENG NRLGESANA AKQA
ITQVVVSRILMAAPGMAIPPFIMNTLEKKAFLKRFPWMSAPIQVGLVGFCLVFATPLCCALFPQKSSMSVTSLEA
ELQAKIQESHPELRRVYFNKGL

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FIGURE 1397A

CCGGCCCCGGCCCCGGCCCCAGCCGCTCCTGCTGGGCGCCCCAACCAGGGTCCGGCCCCGGGGGGGGCGGGGGCCGC
GGCCGCCGAGGATGGGGAAATCCAACAGCAAGTTGAAGCCCCGAAGTTGTGGAGGAGCTGACCAGGAAGACCTACT
TTACCGAGAAGGAGGTCCAGCAGTGGTACAAAGGCTTCATCAAGGACTGCCCCAGTGGGCAGCTGGATGCGGCAG
GCTTCCAGAAGATCTACAAGCAATTCTTCCCGTTTCGGAGACCCACCAAGTTTGCCACATTTGTTTTCAACGCTCT
TTGATGAAAACAAGGACGGGCGAATTGAGTTCTCCGAGTTCATCCAGGCGCTGTCGGTGACCTCACGGGGAACCC
TGGATGAGAAGCTACGGTGGGCCTTCAAGCTCTACGACTTGGACAATGATGGCTACATCACCAGGAATGAGATGC
TGGACATTGTGGATGCCATTTACCAGATGGTGGGGAATACCGTGGAGCTCCAGAGGAGGAGAACACTCCTGAGA
AGAGGGTGGACCGGATCTTTGCCATGATGGATAAGAATGCCGACGGGAAGCTGACCCTGCAGGAGTTCCAGGAGG
GGTCCAAGGCAGACCCGTCATTGTGCAGGCGCTGTCCCTCTACGACGGGCTGGTATAGTCCCAGGCTGGAGCTG
GATGCCTGGGAACCACTCACCTCCTTCTGTGCCATGAGGCCACCTCAGCCCTGACACCAACCCCGTGCGTCCACC
CAGCCTTCTTCCGCATCCACACACAGCCGGCTGCCCTTGACCCGGGAGGCCCGGCTCTCCTCTCCCTGTCCCTG
CACCATCCCCCGCCTGAAGCCACCGGCTCCAATTGCCAGCAACCTCTGCTTGTCCGGAACACGACAACACGAAA
TGGAAAAGGCTACAGCCCTCTGCATAAACCAAGGACTTGGCTGCCTCGCAGGCAGCCTCCGTTCCCTCCCGCTCTC
TTGCGCGTGTGCTTTTGTTTTTTATTTTGAACAGACGTTTTTAAAAGAAAAAAACAACACTACCTTCTGTCTCTAG
AGACACAGACTGACAGATGGGGTGAAGGCCTGGGGACCTCAGAGAACTCTGCCTTGCCCTCGTCCCTCGTCCCTC
GGCAGCCGGAGAGGCTGTGGGTGGGCCGAGGGTGTCTAGGGGTTCTGCCTAGTCAACGTTATTTGTCTGCTCCCATC
TTTTGGCAGCAAAACCACCTGCGTGGCTAGGATGATTAATTATGAGGATGATGATTTTTTTTTGTGATAACAGTAT
TGTGCTTTTTGTGGGGAAAGTGAGGTTTTTTTTTATATACATATATAATTGATATCTTTAATTTATTGGTTGTT
AACTGTTGCTGCTGCCTGGTGTGTCTCAGCTCCCAGGGCTGCGGGCCACCGTTTACATGTGCACGCCCTGACC
CACCTGCCCACGCCGACTTGGGAGGATGGTGGCCTGCAGCGGCCAAGAAGCCAAAAAAATTTTTTTTTTTTTCAG
ATACTGTGCTTGATTTTTGGAGAGGGGAGAGGTGGAAATTCCTAAATGGCTAATGCACTGTTCCCTCCAGCCCGA
ATGCCTCCTGCCAAACCCCTTTTCCCTGCTGCCTCTGTCCCCGCATCCTTGTTCTCCCTGGGTCCGTAACATTT
TTCCGAGGATGAACAGGGGACATCTTTAGGTTTCTCAACTCTTGCTTTGGTGTGTTGCCGAGCATGGAAAACAG
GGCGCCTAAGGCTGGGAGCTGGAAGAAGGGGCATTGGGTACCCAGGCAGAGTCAGGAGAGGTGGTCTTTGAAGTA
AGTTAGCAGAAATCAAGGGGACCCCGCCTCCTTGGGCTGGGGAGGGGATTTCAAGATAGTTCATAACTCTCTCC
CGCTCTGCCTTCCCTCCTTCTATCTGCTTTTTTCCAGTAACTGCATGGTGTCTTCCCTGGCCTTCTCTGGCT
CAAAGGCTGGGAGGGAGGGAAGGAGAGAAGAGTTCCAGGCAATCCCATCAATATAGTCCCTACACCTGGGGCTGC
GGCCACATGTCTTACGGAGGCTTCCAGCGGTGCCTGCCACTGAGGCAGGTGCGGCCCCAGGACCATCACCAGG
AATGCGAGGCCACCCTGGACCAGAGGTAGGAGCCCCAAGTCCGGCCCTTGCTCTTTGATTGTGGGCAGCCTCCTG
CCCTCTCTGGGTCTCAGTTGCCCCATCTGCAGAGCGAGGAGGCCCGGGCTGGTTGGTCTTGAAGGCCCTTTTCCA
TGCCGACATCATGTCACTCTAGGCCTGGGGTTTCACTTCTGTGGCTGGTGATGCTGTGGTTAAGTTTGCTTGAC
CCCAGCAGCCCGAGGGACTGTCTGAGTCACAGCACAGCCCTATTGCGTGGCTGCTGGTGTGTGGGGTCACTTCC
AGCAGATGAATGTGTATGTGGCACACCTTGTCCCTTCCCGCAGCATTTCTGTTTCCCCCAGACCCCTTGAGCG
CTCTTTGGGACCCAGAAGGAGTCTTGCACAGGGAAGGCTTGAGGTGAGAAGCCGCTTCCCAGACTGTCAGGGCC
AGGCCTGGGTCTAGAATTCTTGCTGCTGCTTTGCAGAGTCAACAGCCCATCAGCCCATGTTTTAGAGGGGACACT
TTGGTCCTCGGTTCCACCCCTCAGCAAGCAGGCCTCCAGCCCAGGAAGGCCTCTGCCGTAGTGACGTTGCCGTG
TGGGGCTGCGTGGCTGTTCCCTTGGCTGGAGCATTAGCCCAACCCAGCGTCCCCCTGAGGCGTTTATTGGCA
GCCCCCTAGGACTGCACGCTGGCCCCACGGTAACCCCCCTCCCCACCAACATCTGCAGGGATGGGGTCACTG
GTTCCACCTTACAGGCCACTTTGAAGGGTGGATTCTTTGAGGCCCTGCCAGTCGGCTCCCTGCTCAGCTGCTG
GCCCCGGGCGACCTGGGACTCAGACCAACGGCTGAAGTTTCTCAGCTGGGCTCTGACCTGGGGTCTGGGGCAGGG
AACGAACATGGTGGCTTTGGGCTGAGAGGATGAGGGAGGTCTTTCCAGGTCAAATTACTTTCTTTGGCCTCTG
CCTGAGGCTCGATTTGCCTCTCTGGTCCAATGGGACTGACACTGTTGTACAACCTGACCTGTGGCTGAGGGTGTG
TGGGCTTAAGCATGTGGACCCCTTCGGTGTGTCTGGCCTTCTCCATCGTCTGCTTGGCCTTTTGGCTTTTGA
AGCCACAGGTGTGGCTTCTGGCCTTAGCAGATGGTATGCTTGGCGACCGCAGCCAGCATGCCGGTGGGCCCCACA
GCCCCAGCCAGCCAGAGCTGCCGGAAGGGCCGCCCTTCCCGGCCCTGGCGGGGTGCTGGACACTGGCCATTTTC
ACTAGAGTTTGCCTGGCAGGGACCGATCTCTGCCCCCTCCTCTCCCCAGGCCTCTGGCTGCAGTGATGCCGAGA
ATCCTGAGCCAGGTGCCTCCTGAGCAGCCCGTGCCTCTCCACAGCGGCGTTTGCCACCCAATGCGGCTCGCTT
CAGATGCTCTGATGCAGAGGGCACGCCCATAGTCCCTCTGCAGAGCCTCGCACTGGGGCCAGGGCAGGCACCAGC

FIGURE 1397B

CCCAGGCGGCCAGTCGGCCACGGCCTGTCCTCTTCCTCGTAGCGTCTGCTCCTCACTTTGTGTTGATGGTGACTT
AGGAGAATGTTCCGATTTTCCATGATCTAAGCAGGCCACGTTTAAAATAACATCAAGGCAAGCGTACGTGTCACC
CTCTGTACTGACATCTCCTCCCTGAAATGCTTTTCAGTTTGACAGCCCGTTTCCTAGACAAGTGCACCTGGGGT
TTCAGGAAC TTTGTGTTTTTTCGGAGGGGGTTGGTGGGGAGGTCGGGATGCCTGGGATCCCTTCCTGGAGAGGCA
GGCTGTCTCTGGAAAAAGCCTCCATTGCCCACCCGCCAGGCGGAAAGTCACCCTGTTCCCAGCGCGGTTTCAGCA
TTTAATTTTAAGGGAGCTAAGGAAGCGCGCGCGCCCCCTGGTGGTGGTAAGCCGCCAACGCACCTGGGGGCTGC
AACCCCAACGGACGGGTGGTCCGGAGGGAGGCTGGAGCGGGGAGGCGAGGAGGGGGCTGTGAGTCCTCAGAGGCC
CTGGGCCACCACATTTCTGGCAGCGTTTCCCAGACACCCCTCTGCTAGGCCATCCCTGGATAGCAAGTGAATTAA
CTTAAGGGCACTGTGATGGGAAGCCTTGCCCCCTCTTTTTTTTTTTTTTTTTTAATATCTGCGGAATAAACCCAA
TGGTTAATTTTGAATGAATAAAAGGCTTTTGTTGAATAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 1398

MGKSNSKLPKVVEELTRKTYFTEKEVQQWYKGFIKDCPSGQLDAAGFQKIYKQFFPFGDPTKFATFVFNVDEN
KDGRIEFSEFIQALSVTSRGTLDKLRWAFKLYDLNDGYITRNEMLDIVDAIYQMGNTVELPEEENTPEKRVD
RIFAMMDKNADGKLTLLQEFQEGSKADPSIVQALSLYDGLV

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FIGURE 1399

GTCACCCCCAGCGGGCGCGGGCCGGAGCACGGGCACCCAGC**ATG**GGGGTACTGCTCACACAGAGGACGCTGCTCA
GTCTGGTCCTTGCACTCCTGTTTCCAAGCATGGCGAGCATGGCGGCTATAGGCAGCTGCTCGAAAGAGTACGCG
TGCTCCTTGGCCAGCTCCAGAAGCAGACAGATCTCATGCAGGACACCAGCAGACTCCTGGACCCCTATATACGTA
TCCAAGGCCTGGATGTTCCATAAAGTGAAGAGAGCACTGCAGGGAGCGCCCCGGGGCCTTCCCCAGTGAGGAGACCC
TGAGGGGGCTGGGCAGGCGGGGCTTCTGCAGACCCTCAATGCCACACTGGGCTGCGTCTGCACAGACTGGCCG
ACTTAGAGCAGCGCCTCCCCAAGGCCCAGGATTTGGAGAGGTCTGGGCTGAACATCGAGGACTTGGAGAAGCTGC
AGATGGCGAGGCCGAACATCCTCGGGCTCAGGAACAACATCTACTGCATGGCCAGCTGCTGGACAACCTCAGACA
CGGCTGAGCCACGAAGGCTGGCCGGGGGGCCTCTCAGCCGCCACCCCCACCCCTGCCTCGGATGCTTTTCAGC
GCAAGCTGGAGGGCTGCAGGTTCTGCATGGCTACCATCGCTTCATGCACTCAGTGGGGCGGGTCTTCAGCAAGT
GGGGGGAGAGCCCGAACCAGGAGCCGAGACACAGCCCCACCCAGGCCCTGAGGAAGGGGTGCGCAGGACCAGAC
CCTCCAGGAAAGGCAAGAGACTCATGACCAGGGGACAGCTGCCCCGG**TAG**CCTCGAGAGCACCCCTTGCCGGTGA
AGGATGCGGCAGGTGCTCTGTGGATGAGAGGAACCATCGCAGGATGACAGCTCCCGGTCCCCAAACCTGTTCCC
CTCTGCTACTAGCCACTGAGAAGTGCACTTTAAGAGGTGGGAGCTGGGCAGACCCCTCTACCTCCTCCAGGCTGG
GAGACAGAGTCAGGCTGTTGCGCTCCCACCTCAGCCCCAAGTTCCCCAGGCCAGTGGGGTGGCCGGGCGGGCCA
CGCGGGACCGACTTTCATTGATTAGGGGTCTGATGACACAGGCTGACTCATGGCCGGGCTGACTGCCCCCTG
CCTTGCTCCCCGAGGCCTGCCGGTCTTCCCTCTCATGACTTGCAAGGCCGTTGCCCCAGACTTCCTCCTTTCC
GTGTTTCTGAAGGGGAGGTACAGCCTGAGCTGGCCTCCTATGCCTCATCATGTCCCAAACAGACACCTGGATG
TCTGGGTGACCTCACTTTAGGCAGCTGTAACAGCGGCAGGGTGTCCAGGAGCCCTGATCCGGGGGTCCAGGGAA
TGGAGCTCAGGTCCCAGGCCAGCCCCGAAGTCGCCACGTGGCCTGGGGCAGGTCACTTTACCTCTGTGGACCTGT
TTTCTCTTTGTGAAGCTAGGGAGTTAGAGGCTGTACAAGGCCCCCACTGCCTGTGCGTTGCTTGGATTCCCTGAC
GTAAGGTGGATATTAAAAATCTGTAAATCAGGACAGGTGGTGCAAATGGCGCTGGGAGGTGTACACGGAGGTCTC
TGTAAGCAGACCCACCTCCCAGCGCCGGGAAGCCCGTCTGGGTCTCGCTGCTGGCTGCTCCCCCTGGTGGT
GGATCCTGGAATTTTCTCACGCAGGAGCCATTGCTCTCCTAGAGGGGTCTCAGAACTGCGAGGCCAGTTCCTT
GGAGGGACATGACTAATTTATCGATTTTATCAATTTTATCAGTTTATATTTATAAGCCTTATTTATGATGTA
TATTTAATGTTAATATTGTGCAAACTTATATTTAAACTTGCCCTGGTTTCTAAAAAAAAAAAAAAAAAAAA

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FIGURE 1400

MGVLLTQRTLLSLVLALLFPSMASMAAIGSCSKEYRVLLGQLQKQTDLMQDTSRLDPYIRIQGLDVPKLREHCR
ERPGAFPSEETLRGLGRRGFLQTLNATLGCVLHRLADLEQRLPKAQDLERSGLNIEDLEKLQMARPNILGLRNNI
YCAQLLDNSDTAEPTKAGRGASQPPTPTPASDAFQRKLEGCRFLHGYHRFMHSVGRVFSKWGESPNRSRRHSPH
QALRKGVRRTRP SRKGKRLMTRGQLPR

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FIGURE 1401

GCTGTGGACGAAGAGGCGGCCTCGGTGGTAAGTGGCGGCCGCTGGGACCCAGCCAGGTACCGGTCCGGCTCGGCC
 CTGCCCCCTTTCCGGCCGCTCTCACTCCTTCCCTCGGCCTCGAGTTCCTCGTGGGCCCCGTGGGGGCCGCGCGGGG
 TCGGGGCTGCGAGGCAGCGCCCGCCGTTCCATGGTAAGCGGTGCTACGGGACGTTTCGGAAGGAAACCTCGCTAGA
 GCAGGGGACGCCTGGGCTCCTGGCTGACCACGGGGCCTTTGCACGGCCAGGGCTTTGCGACCGCAGTGTCTTCCT
 TCTGTCCCCGGTTCGTGCGCCGTGCCCCCTCAGCGCGGCTCACGTTTCGGAACACGTCTGCCTTTTCATGCCTCCCGA
 AGAGCCTCCCCGCATCCCGTGCCCCCTGCTCGCTGCTGCCGCTGACCCTTGGGCGCTGCGCTGGTCCAGAGCGTG
 TTGTCTCTGACGCCGTCAGAACCTGAGCTCCCTGCGAGCTGGGACTCCGCCGTGTCTTCATTGCCTCCAGTGCA
 AAGCAACTGCTTGCAAGAGAACAAGTGTGTTTCAGGTGCACAGAGTAGAAAATTCAAGGAGCCTGAAAGGGTAT
 TTGGTGAAGACTTGATGTGTTTTTCCCAGTCCTAACCTCCAAGGCCAGTTCTCCCCTGGGGCAGAGGGAAACCC
 GTTTCTTACGGGCTGTCAAAGAAAGTCTATGCAGGAACATCTACGTGCGTTTCTGCAAAGGTCAGTTACTTTAC
 TTGGGGCTCTTATACTTAACGTAGCTCGGAGAGCGCCCCATGCATTCAGATACAGGTGGGATTCCCTCCGAAACG
 GAGTTTTATAGCACCAGACTTTATCCCCTTTCTGTAGAAATTTAGGGTTTTTGCTGTCTTTTATAACGAACAAT
 GCTAGCTTGACTATTGCTTGTACAAACCGTTTTTGGCCCAAGTCGGACTATTTTCTTAGGTTAAATTCCTTGGTG
 CAGAAGTGCGAGGGCTGTATTTAGGCCCTAAAGGGGTGGTACCAAATCGCCCTCCCCCACCAGCATAAGAGGGG
 GCCGGCGACACCCTTGCCCAAGCTGGATTTTGCAGACCTGGTAGGCGTGAGATAGTATTTCACTGTAGCTTGTGT
 TTCCTGTAAGTATAGTCGAACGTCGTGATGTTTCTGTTACATCTATGTTACGTTGATCATTGTTACCACTGACAG
 TCGTTTCGAGATTGGAAATATGTTTATTATAAACGTTTGACTATTTAAAAGCCATTTGTATT

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FIGURE 1402

AVDEEAASVVSGGRWDPARYRSGSALPLSGRSHSFPRPRVPRGPVGAAAGSGLRGSARRSMVSGATGRSEGNLAR
AGDAWAPG

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FIGURE 1403

AACAAC TTTCTTTTATTAAAAATGTACATAAGTAAAAGGAACGTGGTTTAATTGTGCAAAGAGTAAGAAATACAG
ATGAGCAAATAACACGTATTAAAGCCACCTACGATATACCACCCAGAAGTAACCAGGCTGTTGAATTTTATAGAGA
CTGGGGTGCAAACACATTTTTTCACTCCCTTGTGCATATATCTGGGAGCTCTGCCATATACAGACACAGACGCGG
TGTCACAGGCGATGCCTCTGCTGGGAATGCTGCAAGCAGGAGTCTATCCTTTCCTGGTACTGGCTCGGGGGCCC
TCCTCAGCGCCCAGGTCACTCTAGCATCCAGGAGTCCAAAGGCCCCGGCTGTGCAGGCTGCAGAGGTGATCTTGGT
GTGTTTTCTCCAATAGGCTACAACTCTGGCACCCATGGCTGGTGGCTGGCATTCAACTCTCCAGCAGCCAGGG
AGTCCATTTTCTTGTTTCTCTGCTGGCCATCCTCAGGACTTGCGGCGGGGAGTGGGGGGCCCAGGGTGTGCTGCC
ACCTCGCCCGGCGCGGGTTGCGGCCCCAGGGCCCGCGCTCCAGGCTG

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FIGURE 1404

GCGCGGCCCATGGAGTCGGGGCTGCTGCGGCCGGCGCCGGTGAGCGAGGTCATCGTCCTGCATTACAACACTACACC
GGCAAGCTCCGCGGTGCGCGCTACCAGCCGGGTGCCGGCCTGCGCGCCGACGCCGTGGTGTGCCTGGCGGTGTGC
GCCTTCATCGTGCTAGAGAATCTAGCCGTGTTGTTGGTGCTCGGACGCCACCCGCGCTTCCACGCTCCCATGTTC
CTGCTCCTGGGCAGCCTCACGTTGTGCGATCTGCTGGCAGGCGCCGCTACGCCGCCAACATCCTACTGTGCGGG
CCGCTCACGCTGAAACTGTCCCCGCGCTCTGGTTCGCACGGGAGGGAGGCGTCTTCGTGGCACTCACTGCGTCC
GTGCTGAGCCTCCTGGCCATCGCGCTGGAGCGCAGCCTACCATGGCGCGCAGGGGGCCCCGCGCCCGTCTCCAGT
CGGGGGCGCACGCTGGCGATGGCAGCCGCGGCCTGGGGCGTGTGCTGCTCCTCGGGCTCCTGCCAGCGCTGGGC
TGGAATTGCCTGGGTGCGCTGGACGCTTGCTCCACTGTCTTGCCGCTCTACGCCAAGGCCTACGTGCTCTTCTGC
GTGCTCGCCTTCGTGGGCATCCTGGCCGCGATCTGTGCACTCTACGCGCGCATCTACTGCCAGGTACGCGCCAAC
GCGCGGCGCCTGCCGGCACGGCCCGGGACTGCGGGGACCACCTCGACCCGGGCGCGTGCAGCCGCGCTCGCTG
GCCTTGCTGCGCACGCTCAGCGTGGTGCTCCTGGCCTTTGTGGCATGTTGGGGCCCCCTCTTCTGCTGCTGTTG
CTCGACGTGGCGTGCCCCGGCGCGCACCTGTCTGTACTCCTGCAGGCCGATCCCTTCTGCGGACTGGCCATGGCC
AACTCACTTCTGAACCCCATCATCTACACGCTCACCAACCGCGACCTGCGCCACGCGCTCCTGCGCCTGGTCTGC
TGCGGACGCCACTCCTGCGGCAGAGACCCGAGTGGCTCCAGCAGTCGGCGAGCGCGGCTGAGGCTTCCGGGGGGC
CTGCGCCGCTGCCTGCCCCCGGGCCTTGATGGGAGCTTCAGCGGCTCGGAGCGCTCATCGCCCCAGCGCGACGGG
CTGGACACCAGCGGCTCCACAGGCAGCCCCGGTGACCCACAGCCGCCCGGACTCTGGTATCAGAACCGGCTGCA
GACTTGACACCCTCGGCCCACGACTGTCTTCCCAAGTTTACAGACTTGTTCTTTTTACATAAAGGAATTTGTAGG
AAATGCAGCCAAAGGTGCAGTCGGAAGATGCAGGGGAAATGTATTTATGCAGCGACACCCCAATGTGAACA
AAAGACAAAAAATCTGTGCCCTCGTGGAATTGACGTTCTGCTTGGAACACAGAAAAGAACTCGGTGATGAAAT
AATGGAGATGATTCCAGTGACAAACGACAGAGATGGTGATGGTGGTCAGGGAAGACCTCTCTGCAGAGGTAGTGA
CTTGATGTGAGCTGAGACCTCTGTCTGGAAGACCAAAAGAAAAGCATTTCAGGATGAGGGAATGGCATGCG
CAAAGGCCCTGAGGCTGAAATGTGCCATGTGTTCTAAGAAATGCAGCGATGCTGGTGTGCTGGAGCAGGGACG
GAGGGGGAGAATGGGAGGAGACAAGGAGCTGAAGGAGTAGTTCGCCAAGGACCTTGTTGGGTGATATAGAGGACTT
CGCTTTTGCTCTGAGTGAGGTGGGAGCCATAGAAGCTTCTAAGCAGAAGAGGGACTTGCCCTAATTCAGGTGATC
ACAGGTGTCTTGTTGGCCTCCAAGGGAGGTTGAAAACACAGAAGGTGAAGGGGGGCTGCACTGAGCCACAGGAAC
AATGATGGAGATTCCAGCTAAGCCCAGACCCCGTGGATTCTAGATAGATTTTAGAGGCAGCAGACAGAATTACTG
AGGAATTGAGTGTAAGAGTGGAATAAAGTTATCAAGGACAATGCCAAGGTGGGGCACCCCAAATTTGACTTTG
GGAGACTCAGCCAAATCCTATCTGGTAATAAAATTTCTTTTTTATTTTTCTTTTCTTTCTTTCTTTCTTTCT
TTTTTTTTTTTTTGTAGTTGGGATCTTGCTGCTGTACCCAGGCTGGAGTGCAATGGGCACAATTATAGCTCACT
GCAGCCTGGAACCTCCTGGGATCAAGCCTGGAGTTCTGCTTCAGCCTCCCTAGTAGCTGGGACTACAGGCATGCA
CCACCATGCCAGTTAATAAAATTTCTTCAAATGCAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 1405

MESGLLRPAPVSEVIVLHNYTGKLRGARYQPGAGLRADAVVCLAVCAFIVLENLAVLLVLGRHPRFHAPMFLLL
GSLTSDLLAGAAYAANILLSGPLTLKLSPALWFAREGGVFVALTASVLSLLAIALERSLTMARRGPAPVSSRGR
TLAMAAAAGVSLLLGLLPALGWNCLGRLDACSTVLPYAKAYVLCVLA FVGILAAICALYARIYCQVRANARR
LPARPGTAGTTSTRARRKPRSLALLRTL SVVLLAFVACWGPLFLLLLLDVACPARTCPVLLQADPFLGLAMANSI
LNPIIYTLNRLRHALLRLVCCGRHSCGRDP SGSSQASAAEASGGLRRCLPPGLDGSFSGSERSSPQRDGLDT
SGSTGSPGAPTAARTLVSEPAAD

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FIGURE 1406

ATGTATAGTATTGCTCACGTTAGCAGTTTTCTGTAAGGAGGGCAAGTGT CAGGATAATAGGTGGACTTTTTACTC
ACCTATTTTACCACAATCTCACCCTGCAGGTGATGGTCAATGCTTGCTGCTCCATCTTTATTCATCGTTAATGTT
AATTTATGACAACCTCAGGGGGAAAAACATAACAAGCCTAGTTTGGTTACAGGTACACACAAGCTTGAATATTTCT
CTGCACTGAAATGAAAGTGGCATAGTTCATCACCACCTGCTACATTTTGTAGAGCATCTTATCAGCCATAGAAAT
AGGACAATCTATAAACTTTGGGGAGGGTGGGGGAGGAAATGACAAAGTGTCTGTCAAAAACAGGCATAATCTAA
AACAAGGTGGATGTAGCAAATCTCTGTCACCTGCTTGAGAACTTTGAGCTTGTGGCAGTTTTGCAGACTTACATGA
CTTCAGCACTTTACGACATATTTTTTACTATGAATGTTCAATACAATTTAATATTTATAACTGATTTCTGAGGGA
TCTGCTCCATGTCTATTCTGTTATCTGCATGAAAACAAAATGTATGCCAATTT CAGTATGTCAATAATCAAGGTT
TTAAATGTTTGAAGAAAATACAAACAAGATTGCTGATCTGTTCTGTATTAGTGACATTCTGGTACTTCTAGATT
TGCAATAAATTTATGGATTTTTTATTTAAAGAGA

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FIGURE 1407

CIVLLTLAVFCKEGKCQDNRWTFYSPILPQSHPAGDGQCLLLHLYSSLMLIYDMSGGKT

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FIGURE 1408

GAAGTTTTACTATGTTTAATAATTTAGTGAAATTTGGGCTATGTGTTTATTGATTCAGCTCAATCCAGAGGAAAA
TTTTAAAGGCTTACAGCCTTAGGATTATAGGATACTATATAATACTTTTGGTACAGAGATAGAATTAAATAACAT
AAAAATCAAAAATTTATTAGGCTAAAATTTTGAGGGAGAAGTGGTATGAAAATACAAATTCAAGGAGTAAAGGA
AAAGTGGGGCATTCCCTTGCTACTAAAAATTGCCTTGTTCCAGGTAAGACTGATCATAAAAAAATGGCCCTGTTCA
TAAAATTTTTAAAAAGATCATAGTATCTATCAAATAACTTATATTAAGAACCTCCTGGGCTAAATTTAAAAAGTA
ATACAACAGTTTTATTTAAACATGTAGTGTCTACGGTATGCCAGCACTTTGCAGCTATTTATAATGAGAAATTTT
AGATGTCAATATAGCAATGTGCAAGAAGATAGAGATTTTCAAAATTCACCTAAGAGTATCTGAGCATAAAATGTT
AAGATTGCTGATCGGATGTGAGGGCGATCTGGCTGCGACATCTGTCACCCCATTTGATCGCCAGGGTTGATTGCGC
TGATCTGGCTGGCTAGGTGGGTGTCCCTTCCTACCTCACCGCTCCATGTGCGTCCCTCCCGAAGCTGCGCGCTC
CGTGAAGAGGACGACCAACCCCGATAGAGGAGGACCGGTCTTCGGTCAAGGGTATACGAGTAGCTGCGCTCCCC
TGCTGGAACCTCCAAACAAGCTTCCAAGATTGCTGATCTAGGGCCACTAAGTGATGAAGCAAAAAGGATGGCTAA
AAAGGACCTCAACCTTTTGACTTTAAAGGAAAATAGCTTAACCTTCAACCTGTGTGACATTTAACTTTTTGAA
CCCAACCGTAAAAGCTATCTTCTAACCAACAAAAAGTTAATAATTACATTTGGAATTATACAGAATTAGAAAATT
GGCATTAAAAAATACTCAATAATTTGTCCCTGGTTTTTAATTTTCAAAATATTTTCTTTTTGAAGAGCCAGATTC
CAGTGATCCTGCCTCTCAGAAATTTCCACATTTCTTATTTTTCATTAGGCCTTAAGAAGCTGCATTTGTAAACTT
GTGTTTCATTATTAAAGCTTAATTTATTTTTATATAAATAGTATGTGCTTTGTGTACATAGAGAATTAAGTGAA
TGAGTCACACAGATGTTGGCTGTTGTTAATGTGAAAATTAAACAGCTGTATCACATTTGAAAAATAAAAGTTTC
ATCTGAATGAATATAGCAAAA

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FIGURE 1409

SFTMFNNLVKFGLCVY

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FIGURE 1410A

AGAGCGAGCAGGGGAGAGCGAGACCAGTTTTAAAGGGGAGGACCGGTGCGAGTGAGGCAGCCCCGAGGCTCTGCTC
GCCCACCACCCAATCCTCGCTCCCTTCTGCTCCACCTTCTCTCTGCCCTCACCTCTCCCCGAAAACCCCT
ATTTAGCCAAAGGAAGGAGGTCAGGGGAACGCTCTCCCTCCCTTCCAAAAACAAAAACAGAAAAACCCCTTT
CCAGGCCGGGAAAGCAGGAGGGAGAGGGGCCCGGGGCTGGCCATGGAGCTGCTGTGCCACGAGGTGGACCCGG
TCCGACAGGCCGTGCGGGACCGCAACCTGCTCCGAGACGACCGCGTCTGCAGAACCTGCTCACCATCGAGGAGC
GCTACCTTCCGCAGTGCTCCTACTTCAAGTGCGTGCAAGGACATCCAACCTACATGCGCAGAATGGTGGCCA
CCTGGATGCTGGAGGTCTGTGAGGAACAGAAGTGCGAAGAAGAGGTCTTCCCTCTGGCCATGAATTACCTGGACC
GTTTCTTGGCTGGGGTCCCGACTCCGAAGTCCCATCTGCAACTCCTGGGTGCTGTCTGCATGTTCTTGGCCTCCA
AACTCAAAAGAGACCAGCCCCTGACCGCGGAGAAGCTGTGCATTTACACCGACAACCTCCATCAAGCCTCAGGAGC
TGCTGGAGTGGGAACCTGGTGGTGCTGGGGAAGTTGAAAGTGGAACTGGCAGCTGTCACTCCTCATGACTTCATTG
AGCACATCTTGCGCAAGCTGCCCCAGCAGCGGGAGAAGCTGTCTCTGATCCGCAAGCATGCTCAGACCTTCATTG
CTCTGTGTGCCACCGACTTTAAGTTTGCCATGTACCCACCGTCGATGATCGCAACTGGAAGTGTGGGAGCAGCCA
TCTGTGGGCTCCAGCAGGATGAGGAAGTGAGCTCGCTCACTTGTGATGCCCTGACTGAGCTGCTGGCTAAGATCA
CCAACACAGACGTGGATTGTCTCAAAGCTTGCCAGGAGCAGATTGAGGCGGTGCTCCTCAATAGCCTGCAGCAGT
ACCGTCAGGACCAACGTGACGGATCCAAGTCGGAGGATGAAGTGGACCAAGCCAGCACCCCTACAGACGTGCGGG
ATATCGACCTGTAGGATGCCAGTTGGGCCGAAAGAGAGAGACGCGTCCATAATCTGGTCTCTTCTCTTTCTGG
TTGTTTTTGTCTTTGTGTTTTAGGGTGAAACTTAAAAAAAATTCTGCCCCACCTAGATCATATTTAAAGAT
CTTTTAGAAGTGAGAGAAAAAGGTCTACGAAAACGGAATAATAAAAAGCATTGGTGCTTATTGAAGTACAGC
ATAAGGGAATCCCTTGATATGCGAACAGTTATTGTTGATTATGTAAAAGTAATAGTAAATGCTTACAGGAAA
ACCTGCAGAGTAGTTAGAGAATATGTATGCCTGCAATATGGGAACAAATTAGAGGAGACTTTTTTTTTTCATGTT
ATGAGCTAGCACATACACCCCTTGATAGTATAATTTCAAGGAAGTGTGTACGCCATTTATGGCATGATTAGATTG
CAAAGCAATGAAGTCAAGAAGGAATTGAAATAAGGAGGGACATGATGGGGAAGGAGTACAAAACAATCTCTCAAC
ATGATTGAACCATTGGGATGGAGAAGCACCTTTGCTCTCAGCCACCTGTTACTAAGTCAGGAGTGATGTTGGAT
CTCTACATTAATGTCTCTTGCTGTCTACAGTAGCTGCTACCTAAAAAAGATGTTTTATTTTGCCAGTTGGACA
CAGGTGATTGGCTCCTGGGTTTTATGTTCTGTGACATCCTGCTTCTTCTTCCAAATGCAGTTTATTGCAGACACC
ACCATATTGCTATCTAATGGGGAAATGTAGCTATGGGCCATAACCAAACTCACATGAAACGGAGGCAGATGGAG
ACCAAGGGTGGGATCCAGAATGGAGTCTTTTCTGTTATTGTATTTAAAAGGGTAATGTGGCCTTGGCATTCTTC
TTAGAAAAAACTAATTTTTGGTGCTGATTGGCATGTCTGGTTCACAGTTTAGCATTGTTATAAACCATTCCATT
CGAAAAGCACTTTGAAAAATTGTTCCCGAGCGATAGATGGGATGGTTTATGCAAGTCATGCTGAATACTCCTCCC
CTCTTCTCTTTTGGCCCCCTCCCTTCCCTGCCCCCAGTCTGGGTACTCTTCGCTTCTGGTATCTGGCGTCTTTGG
TACACAGTTCTGGTGTTCCTACCAGGACTCAAGAGACACCCCTTCCCTGCTGACATTTCCCATCACAACTTCTCA
GACAAGCCTGTAACTAAAATCTGTTACCATTCTGATGGCACAGAAGGATCTTAATTCCCATCTCTATACTTCTC
CTTTGGACATGGAAAGAAAAGTTATTGCTGGTGCAAAGATAGATGGCTGAACATCAGGGTGTGGCATTGTTGCC
CTTTTCCGTTTTTTTTTTTTTTTATTGTTGTTGTTAATTTTATTGCAAAGTTGTATTACAGCGTACTTGAATTTTC
TTCTCTCCACTTCTTAGAGGCATTAGTTAGCAAAGAGGTTGGAGCAACAACTTTTTTTTTTTTTTTGCACAA
TTGTAATTGACAGGTAATGAAGCTATTTGTTAAATATTTGCCTTTTTTAAGTAAAAAAGAAAAATCAGAACAGGG
CTATTTGAAGAATTATTTTATACACAGATTCTGCCTTGTTTCATAGTATGAGGGTTGAAGACGGAAAAACAATCTA
AGGGTCTCTCATTTTTTTAATTTTGTGTTTGTTCAGTTTGGTTTTTTTTTTTTTTTGGCGCTGCTAAGAAGCTAAAG
TCATCCATCCTTATTCACGTTGACAGTACCTAGCTGTAATGTTTCACAGAGTGCTGCTATTTTATAAACATTT
TTATAATATATTATTTTACTGCTTAAATTCCAAGTCTGAAGTAGATGGTTGAGATATGAGTTCTTCGTACTGGA
AAAGCCCTTCCGTAGTTTGTGTTTCTTCTGGTAGCATATTCATGGTTGTTTTTTTTTTTTTCTTTTTTGGTTTTTTGG
TTTTTTTTTTTTTCTCTGATCACATTCTTCAAAGACGGAGTATTCTTTACCTCAGGTTTACTGGACAAAATCAAT
AACTACAAAAGGCAATGATTACGCTTTTTGTTTTTATAATACCTCACAACCGTACAGTTTCTGCTTGGGAGCCCCA
TTCGCATGAGGAATACAGAAGCAGTGTGAGCAGGGCTGACTCCCTCTCAGGTGGAAGGCAGGGCGGTCTCACTCC
CAGGGACCTTTTTGGTCATGGAGGCCATCGGGCTCCAGTTAGACCCTGGTATCCTCATCATGATGGAAAAAATA
CATTGAACCAAGGGATCCTCCCTCCCTTCAAGGCAGACGTTAGTACAAACATTTATGCGGTAGGCTCAGATGT
CGTAATTTGCACTTAGGTACCAGGTGTCAGGAAACAGACTAAAAAGAATTCACCAGGCTGTTTGGAGATCCTCA
TCTTGGAGCTTTTTCAAAGCGGGGCTTCATCTGCAAAGGGCCCTTTCATCTGAAGTTTTTCCCTCCGTCTTT

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FIGURE 1410B

CCCCTCCCCTGGCATGGACACCTTGTGTTTAGGATCATCTCTGCAGGTTTCCTAGGTCTGAATCTGCGAGTAGAT
 GAACCTGCAGCAAGCAGCGTTTATGGTGCTTCCTTCTCCCTCCTCTGTCTCAAACCTGCGCAGGCAAGCACTATGC
 AAGCCCAGGCCCCCTCTGCTGAGCGGTACTAAACGGTCGGGTTTTCAATCACACTGAATTGGCAGGATAAGAAAAAT
 AGGTCAGATAAGTATGGGATGATAGTTGAAGGGAGGTGAAGAGGCTGCTTCTCTACAGAGGTGAAATTCCAGATG
 AGTCAGTCTCTTGGGAAGTGTGTTTAGAAGGGTTTCAGGACTTTGTGAGTTAGCATGACCCTAAAATTCTAGGGGA
 TTTCTGGTGGGACAATGGGTGGTGAATTTTGAAGTTTTGGAGAGGGAAGTGGAGCAGCCAGCAAGTAAGCTAGCC
 AGAGTTTTCTCAAGAGCCAGCTTTGCTCAGCACACTCTCCTGGGCCCCAAGGAGTCCCACGGAATGGGGAAAGTG
 GGAACCCTGGAGTTCCTGGGAATCTTGAGCCTAAAGAGAAACCGAGGTGCAAATTCATTTATGGTGAAGTACC
 CTTGAGCTTAAACAGAAAGCAGCAAATGAAAGAACCAGGACAAATAAGGAAGGGCACAAGCCTACCCGACTCTATTT
 ACAGTCTGTAACCTTCCACTCTTCTGTAGTCCCGAGGCCCCCTGGGTCTTCTAGCTTTTCTCTTTCCCATCCTT
 GGGGCCTTGTGTGATGATGGGTGTGGGGCTGCCGATGGGAAAGTGGGGGTTGTTAGGCTTTTCTGCCTGCTCCT
 GCTTAAACACAAGAAGGAATCCTGGATTTTGGCCTCTCCTTAGCTCTTAGTCTCTTTGGTAGGAGTTTTGTTCCA
 GAGGAGCTCTCCCCCTTGGATTTGAAGTGTCTTTTTTGTGTTGTTGTTCTTCTCTTTTCTTTTACCTCCC
 ACTAAAGGGGTTCCAAATTATCCTGGTCTTTTTTCTACCTTGTGTTGTTTCTATCTCGTCTTTACTTCCATCTGTT
 TGTTTTTTTTCTCCATCAGTGGGGGCCGAGTTGTTCCCCCAGCCTGCCAAATTTTGATCCTTCCCCCTCTTTTGGCC
 AAATCCTAGGGGGAAGAAATCCTAGTATGCCAAAAATATATGCTAAGCATAATTAAACTCCATGCGGGTCCATAA
 CAGCCAAGAAGCCTGCAGGAGAAAGCCAAGGGCAGTTCCCTCCGCAGAACACCCCATGCGTGCTGAGAGGCGAGC
 TCCTTGAAGAAGGGGCTGTTCTTCCAGGAGGCCTTATTTTGAAGTGCCTCAGGACCCCACTGGAGAGCACAGCAT
 GCCTTACTACTGGGTCATCCTTGGTCTATGTGCTCTGTACTGGAGGCTCTGTTCTGCCTCTTATCAGCCAGGTCA
 GGGGCACACATGGCTTAAGTGACAAAGCCAGAGGAGAAGACAACCCTGACAGCATCACGCTGCATCCCATTGCTA
 GCAGGATTGGCAACTCTTCAGACGGAGCTGCGCTTCCCTGCAGTCTAGCACCTCTAGGGCCTCTCCAGACTGTGC
 CCTGGGAGCTCTGGGACTGAAAGGTTAAGAACATAAGGCAGGATCAGATGACTCTCTCCAAGAGGGCAGGGGAAT
 TTTCTCTCCATGGGCCACAGGGGACAGGGCTGGGAGAAGAAATAGACTTGCACCTTATGTCATGTAAATAATTGA
 TTTTCTAGTTCAAGAAGATAATATTGGTAGTGTGGGAATTGGAGGTAGGAAGGGGAGGAAGTCTGAGTAAGCCAG
 TTGGCTTCTAAGCCAAAAGGATTCTCTTTGTTTATCTCTGAGACAGTCCAACCTTGAGAATAGCTTTAAAGGG
 AAATTAATGCTGAGATGATAAAGTCCCCTTAAGCCAACAAACCCTCTGTAGCTATAGAATGAGTGCAGGTTTCTA
 TTGGTGTGGACTCAGAGCAATTTACAAGAGCTGTTTATGCAGCCATCCATTTGTGCAAAATAGGGTAAGAAGATT
 CAAGAGGATATTTATTACTTCCCTCATACCACATGGCTTTTGTGATTCTGGATTCTAAACAACCCAGAATGGTCA
 TTTTCAAGGCACAACGATACTACATTCTGTGTGTCTGCTTTTTAAACTTGGCTGGGCTATCAGACCCTATTCTCGGC
 TCAGGTTTTGAGAAGCCATCAGCAAATGTGTACGTGCATGCTGTAGCTGCAGCCTGCATCCCTTCGCCTGCAGCC
 TACTTTGGGGAAATAAAGTGCCTTACTGACTGTAGCCATTACAGTATCCAATGTCTTTTGACAGGTGCCTGTCTT
 TGAAAAACAAAGTTTCTATTTTTTATTTTTTAAATTGGTTTAGTTCTTAACTGCTGGCCAACCTTTACATCCCCAGCA
 AATCATCGGGCCATTGGATTTTTTCCATTATGTTTATCACCCCTTATATCATGTACCTCAGATCTCTCTCTCTCTC
 CTCTCTCTCAGTTATATAGTTTCTTGTCTTGGACTTTTTTTTTCTTTTCTTTTTTTTTTTTTTGTCTTTAAAA
 CAAGTGTGATGCCATATCAAGTCCATGTTATTCTCTCACAGTGTACTCTATAAGAGGTGTGGGTGTCTGTTTGGT
 CAGGATGTTAGAAAGTGCTGATAAGTAGCATGATCAGTGTATGCGAAAAGGTTTTTAGGAAGTATGGCAAAAATG
 TTGTATTGGCTATGATGGTGACATGATATAGTCAGCTGCCTTTTAAAGAGTCTTATCTGTTTCAAGTGTAAAGTAT
 TTAATAAATAATAACCTGTTTTCTGACTAGTTTAAAGATGGATTTGAAAATGGTTTTGAATGCAATTAGGTTAT
 GCTATTTGGACAATAAAGTACCTTGACCT

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FIGURE 1411

MELLCHEVDPVRRVRDRNLLRDDRVLQNLLETIEERYLPQCSYFKCVQKDIQPYMRRMVATWMLEVCEEQKCEEE
VFPLAMNYLDRFLAGVPTPKSHLQLLGAVCMFLASKLKETSPLTAEKLCIYTDNSIKPQELLEWELVVLGKLKWN
LAAVTPHDFIEHILRKLPQQREKLSLIRKHAQTFIALCATDFKFAMYPPSMIATGSVGAAICGLQQDEEVSSLTC
DALTELLAKITNTDVEDCLKACQEQIEAVLLNSLQQYRQDQRDGSKEDELDQASTPTDVRDIDL

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FIGURE 1412

AAAAAAGAAAAAAAAAATAAGTGAGCTGAACTCACCTGAAAGTGGTTTACTTCTGTGGGTAAAGAAGTTCTAGTCA
GTGTTCA**TAG**TCGTTTTCGTTTTGATAATTGTTGAACCAATTTTGTTTTTAAACCTTTAGACTCTGAAAGTAATA
TTTTGACTAAGAAATGTAAATATTTCCAAACTAAATTACTCGGGAAGTAAACGCTTTTTTTAAAGTATTTTTACT
GGTTTTATACCAATATTATATGCAGAAATCACAGGATGAATTTAGAATTAAATCTCAATTAGTTCACTTTGGCCT
AGATTTATGAAAAATGCATGCCTCGTAAAGAGTCCACTGTATTCACGAGTAAAGTTGCTTTTAGTGTTCACTTGA
TGACTTGGAGAGTAGGAATTTGCAAAATCTGAATTTAAGGAAATCTTTAGGATAACCATTTCAAAAAATAAAA
TTGCTATGCAATCTTGAATATTTCTCTTTTGCCCTCGTAAATGAAAATGCATTACAGTTTCTGTAAATTATTT
AGCAGCCTTAAAGTTTATCAAAAAATTGTCCAGATTCCACGTGCAGCATGCTTGGCCCTGCATTTAATTTAAGAA
GGATTAATAATAATGCTCTGAATTTTTCGAAAGGGATTCTCCTAAACCCACCCACTTCTCTTGCCAGGCTGCTT
TTAAAAATATTTTTTTATTTTTTACTTATTTTTAAATTTTCTCTTTTTATTTATTTTTGGTTTTCTTGTTAGCC
CCCTGTTATATGGGAGAACGAAAATTGTTATATTTGAAAGTACTTATTACATTATTTTTATTTTAGTATCTTGA
TGCTCCTGTCAAAAGGGAAATGAGGCTTTTAAAAATAAAGTACCTTAATTCCTTTATTGACTTTTTGCCCTAAAT
GCTAGGTGTGACCCAGCAATCTTTTAGGAAGAGATTTTACAGTGGTGCTTTATTTATATCAATAATCCAGTATAG
TTAGGCTGTTCAATTCCTCATAATAGAGTACATAACAGAAAAGTGGGACTTTCACATTTTCATATTTAGGCACGTT
CCAATTTAATTCAAAAATACTCTGTAATTCTACATCTAAAAAAACCGATTCCCTAATTCGAATTTATTGGTACC
AAAGCTCTCTTTGGCTATAGACAATTAAGAGTTGACCTTTTAAAGTTAATGTATATGCTTAAAAACAGTTTTAGGA
AAATATTTGGTAGACAAAGAGTTTCAACTTTAAATGTTCACTATGTCATTTAGTGTCCAACCTTTACGGATAGGTT
GACTATCTAAATAGGCATTTTTAGTCATTAAAAAAATCTAGTCACCAGGAGGATCCCTATAACTCAAAATAACT
TGTTTGTAAGAAAATTTGTTTACTTACCCATTAGTAAGTTCCTGCATATTCATTATAAGATGGCAAATCAAAC
TTTTCTAGGATGAAGACAGCTTATTTTTAAGTTGTATAGTCTTAGTTGGTTTAGGGTCTCAATTTTAATTAATAA
AATACTTGGTTTTTATTTGCTTGTCTTTTTGAATTCCTGTTTTAATAATTTTAAATGAGCACAAAGAATGTTGA
AGTTCAGATTAATCTCTCTGAATGATGTTTTTTCTCTGTGATGAGTTGTTTCTGACTTTTTTCCTTTGTAT
TTGTAATGTTGATTAAGATGTAAATAAAAAGTGTGCCTGATTATTTTTGC

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FIGURE 1413

KKEKKISELNSPEVVYFCGLRSSSQCS

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FIGURE 1414

GCGAACTGGAGCGGGAGGCGGGCGGCCGGAGGGCCCAGGACAGCCCCGGGAGGGCGGGCGAGGCGGAGCAGGAGCGC
 CCCGGCTCCGGCCACATTCTCAGAGTCAGGAAAAGGGGCGAGAGGCCACATGTCTCCCTCTCGCCCAACTGAAAA
 CGAAACGGCGCTCCAGCAGATTGGGTGGAAAGAGCTGGGTCTCTTTTCTCTGTTTTTACGCTAGAAAGGGCTTG
 TAAACATTGTTCCCTTTTAAATGACCTACCCAGGCATTGTGTTGGGCACACTTCTGTCTGGGGTCATCGTTCC
 TAGGTGGCTTCGGACCTGGGACTTTTCCTGTATCTGCACATTGTCGTTTTATACACAATTGCCAAGGTGGGACTG
 CTTTCAACTTTACTGTGCTTGAAGCTGCAGAGGTTCTGCCCTGATGTTTCTGGAATAATGCTGAGGACTGCCTT
 TCGGGTAGCCGCCCTATTCAGTTCACCTTCATCTCGGAAATACCTGACCCCTGCCTTGGATCCAGCGGCCCTCCTG
 AGAGCTGAGGAAGGAGGAAATCCTATGTGTCTGCTCCCGGAGCTGCCACAACCCATCTTCCACAACCTCGGAACT
 TGGAAAAAGGAACCCAGGACACGACTTTGCTTTTCTTTTGGACCTAGTTGGTGATTATACTCTGTCTCCCATGGA
 GACCACGTCTTGCACTCTTCTTCTATATGGGATTTAGGATAGAAATTAAGAAACATATTATTTTGGAGTCT
 TGATTTGGAGAAAGGTAGTATTACAGGAGGAAGTAGGCTATGATACACATAGAAAATTTGAGGACAGTGTTACTTA
 ACAAGGACATTTCTGTCTCTGCAGAAGTCACAGCTTGGAGGAAACAGTTTGCACTATTTGATGAGGAATTTGGC
 CACCAAACCACTGATACTTTCCCAAAGGTTTGGCAGAAATTGTTTTTGGAGTGGCTCACCAGAGTACCCAGAAGA
 ATCAGTATGGAATTAGAGGACAGTGGCCTACCCTAAATAAGACATGAGTGATGTATAAAGTCTAGTGTCAATTT
 ATTCAGAAAATATCAAATTTATTCTGGGAGCTATGGGTCAAAGTTGATAGGCACAAACAAACAAAAACGAAAGGT
 ATTTTAAATTCACAGCTTGGATAAGTAAAAGGGAGATGTTGTCATTTCTTCTTCAATCCAACCTTTAGATTTTC
 AAGCCGGAAAAAGGTAATTAGAAGTTAGAAATTGTTATTGCCAGAAATAGCTCTAAACCCTG

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FIGURE 1415

RTGAGGGGRRRAQDSPGRAARRSRAPAPATFSESGKGARGHMSPSRPTENETALQQIGWKELGLFSLFFTLEAC
KHCSF

FIGURE 1416

TCACATTCTATCTGTTTATACGAAGGTTGTAGACACACAGCGTATGTACATATGCCTAGTTGCTCTCATTCCCTT
GTTTCACATCTCAAGCCTAACCCAGACTGAAAAGGTTTGAAGGCTGAGATTATTCATCACCCCATCATTATAGA
AAGCAGGGCTGGCCCAAGGTTCTCACAGTGGGAGCAAGGTGGATTTTAACTCTGATCAGTGTTGTAGCTCAAATA
TAAAAAGAACTGCAGCACAAAAGTCACAAGGATAAATGATCCCCTCGTTCTTCTCCATAAAAAATAAGCAGCCAA
TTGAAGGTGGAAGTCAGTACAGTGCGGCATTCCCAGAGGCGACAGAACCTAAGATTCCATTTCTAAAGACACTGC
TCAACAAGAAGACCACCTGGGATGTCTTACATAAAACCATTGGCCTGGCAGCTTTTGGCTGAGTTCTCTATTCTG
GTTCAAGCCAGCATCACAGCCTATCTGTGGTTTTAACAACCTGATGGAATTTGTATTTTGAGAACCCCTCATCCGTT
AGCATGAAGCAAACCTCAAAGCATTGTTGCTCATCAGTTGTCATCTGTTTGAGAAAGATTTTGATTGTGTTACTTG
TAGTGAAGCTTGACCATACTTCTCCAGGGGCTTTTTAAAAAGATGAATGTGTGAGCTTGTAGATTTGTCCCATG
AATGAAACCACAAGCAAATTCTCTTCTCTTCCAGCCTCCCTTCCCTCCTTGTGTTCTTCTCAGTGGCCATCTGT
GCATTATGTTCCCATTTGCCAGGCCCTCTTCAAGCAGCTTATCTATGAGTGAATTCAGAACTTCAAATTATAAAG
GACACCCAGATAATTGGCCTGTTCTCCAAAGTATCTGTCCCCTGTGCTGCTGCCAGATTTCCCTTCTTAATGAATA
CATCCAGTGACAGTGGGATTCTTGAGCTTGTCCGTATCTGTGAGAAAATGAGCTCTCCTGCTTTGTAACAGCTTG
TGGCTCAGGGAAAAAAATGACAGCCATTGCACAAGTTTCCTTTGAATGTAGTTTTCTTTCCCATAAATGATACTT
TGAGAATACAGTTAAGGGGTTATTAGTTTTCTATTTTCATGCTTGGCCTGTGTGTGAGAATAACACAAGCTGTCAC
TGCAAATCAGTAGCTAAAAATGCTTTGTCTGGTTAATGTGAACATTTAATATTTGGCTCAATTAATAATTAACCG
ATGAAAGTACATGTCATTGGAATTTGAAAATACCTTTTGTACGGAATACTTAAAGGGCATCACCCATGACTAAAC
CAGTGCTTTTAAATATGGAGAATATGGGGAAATTTAATATGAGTTGGGATACTTGACTCTTTTTTTAAACCTC
TCTACCTGTTTGGCACAAACAGGGTATTGATAAAGAGTGGGCTCATTGTTATGGCAAAGGATTCACTTGCATCTCT
GTGTTTTTAAGTGGGTAATTGTTTTTTTGCACCTCAGTCACATGATTAAAGCAGACAGAACAAGAGATCAGTTATT
CATTTATACCATACTTTTAAAAAATATTGAGCCAGGCCCTGGGGAAGTGGGAAGTGAGAGCCAGAGCGGCGTGG
CTGATAGTCTAGGGCAGTGCTATCCA

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FIGURE 1417

HILSVYTKVVDITQRMVICLVALIPLFHISSLTQTEKVLKAEIIHHPIIIESRAGPRFSQWEQGGF

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FIGURE 1418

CTTCTAATCATTCTAGAAATGCAAATTCCAAATTCAAATTGATAGTTTTATTACAGTTCTCTGTCTTTCCCATC
TATCTTAAGACAGGAGCTTTCCCTCCCTCCCTGCACCTGGCCCCCTTCTCAACAAAGATATTTCTACAATTATTA
CCACTTCAGCCACTGCTTCTAAAACAAAGAAGGAAAAAGAAAGTCATTCATGAAGATGTAACTTTGTCAGGGTA
AGAACATTTTTTACTCATGGCCAGGTGATAAGATATCAAGAGTTAGGGGTGAGGACAGATACCAAGGGTGGAGAA
TTTTCACTAAACTAGTAGGATTCTTGCTTAACTGGATTCTATAAGACAGAAAAGGAAGCCCAAGGTCAGGGTC
TAGTGGAAGAGAAGGCTCCGGGGAGCCCGACCTGAGTTTGATCTAGGAGAGTCTTTGTCAATATCCTGTAGAATA
TGACCTTCACCTCATTCTTTCTTCTCAAGTGTATCTGGACTGTATTTGGCCTTTTGGGCTTCCAGGTGACTTTT
AGAGTAAAGTTTATCAAGATCTACAAAATAGCTACTGAGATTTTGATTTGAATAGTATTTCTTCCTGATAATTC
TGAGTAAATTCATTTTAAGGAAGTAGGAGGGGCAGTGGCCTGATGAAAAGCAAAAATGAAGAAAAGAATAAGGA
AAGACACAGTTTTGCCATCACCAGCCAGTGTTTAGTGATCTTAAATAGCTGCTTTTGTTTTTGAGCATCATTTG
TTGGGTATGGAGTTGCAGAAGTTGGGTTGAGGGACACTGGCTTCTAGAATCAAATATTGGCCTCCATAGAGTGTT
TCTGTACAGTGAGTTGGGAGGATGGGCAGGGGCCACTGAGGACTGTGGCGTGTCCCCACGTTAGAGTGATCTCA
CACAGAGCCTGTCCTGAAAATATAGTTATTTTTAAAAAGTGTTTCCCCCTCCTTTTCATTGGCCATTTTCTCTTT
TACTACTCTTTACCTAGCAAAGGGTGGGCATGAGAAACCTGGTCAGTGGAAGAGAAAGCCATTTTGCAACAGTGG
TTATAGGGGTGGGAGAGTAAAATTTCTGGTTTCTGGGGAAGCTAAGCCCATTGGTAGGACCAGACTTTTGTATG
TGTGTTTCTTCCTTTAGTCATCTACTAAGGTTAATAAATACCTT

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FIGURE 1419

MCVSSFHLLRLIN

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FIGURE 1420

GTGTTTGTAGTTCTGTCCAGCTCACATTTTATCTTCATACTTTGAGTAGCCTCCTTCCATGAATGGATCATCCAG
TGGCCGCACTTAGGTTCTCCTATGAAGATTTTTGTTGTATTGTACCTCAGAACCATCTCCATATTCTCTANNNNN
NNNNNNNNNNNNNNNNNNNATTGAATAGAAGTATTTACTAGATGAGGAGGAAAACCTAAAACAAAACATGAACAT
AAAATATTTTTTAAAAGGAAGACATACAAACAGACACTATAACCAAATAAGATGACAGAATTAAGGCCTTATGCCA
CAGCCAGAGTTGAAAAATGCAGAAAAAAGTTTAAAAACAAGGAATTAAAGCCAAACCTAACTTTTATCAAATA
AATGTAAAAGTGATGAAAGAATCTGTTAAGATATCAGATTGTAATATAAAAGATACTAGAAACAAATGCCAATAG
AACACTTAAGTACATTTTATATATTTCATCCATTAGAATATATAGCTGTCAGAAATGATAGAGAATTACATATGTG
TGCAAAAGTTTTTGTATCCATGTGGAAAACACAGGAAGCTAATAGTACTGTTTTTCTCTGGAGTGGGTGTAAGGG
TAGAGACTTAACCTTTTACATCCTTATGGCAGCCTTCGAATACCTTTTAACTCCCAGTTCCCTTAACTGGGGGTG
TGTATCCTAGAATCCTCGACCCATTAGAAAGTATATTGTAGACATCATACTCTTTACCCTTTAACTACACATG
CACTTCATAAGAACAAGCATGCTGTCTTACCCAAGTACAGCTATCAAGTTCAGAAATTTAACATTGCCATAATAC
TTTACAGTCCATATTTCAATTTCAATTTGCTGTTTTATTGGTAATTTTTTTCAGCTCCACGATCCAGCCTAGGATC
ATATGTTGTATTGCCATAACCCTCTAATCTGGAGCAGTTCCCTCAGCTTTTCTTTGTTTTTTATAATAGTAATATA
TTTGAAAAATACAGGACAGCTAAAGGATAGAGTATCCTTCTATTGTTGGTTTTTCTGATGTTTCCTCATGGTTAGA
TTGGGGTAGTGAGTGAGGGTTGAAATGCTGTAAGTGATATGTATTGCAGGTATACATCCAGATGCACAGAATGT
CCATTTGTCCCTTATTGGTGATGCTAATTTTGATCACTTGGGTAAGATGTCCAGTTTCTCCAGTGTATCGTTATT
GTTTTTCTTTTGAATTAGTGGGTAATTTGTGAGGAGAACTTTGAGACCTTGTGACAATTCTGTTCTCTCATC
AAATCTACCCCTCCTAGGTTTAGCATCCTTTGACGATTCTTGTCTGAATAAATTTTTACTAGGATGTTTCCAAAA
TTGTGATTGTTCTAACTCCATTATTATTTCTGTATTAATTAGTCATCATTTCTACTGTAAGGAAGAGGTTTCCCTT
TATCATCAACTTCGAGTAAGTACTTTTTTCTGAGCCATTTGAATATTCCTTACTAGATGTGGTGCCTCTTTACCC
CAATTACTTAAGTTTGTATTTCCAAAGAACAAGGGTGTTCCTGCATAGCCATAGCACAATTACCAAAATCAGA
AAATTAA

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FIGURE 1421

MIEELHMAKVFVSMWKTQEANSTVFLWSGCKGRDLTLYILMAAFEYLLTPSSLNWGCVS

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FIGURE 1422

AGTCGCTGTTTGGGACGCTGGGTGTGCGGTGTTCTGTCTCCGCTCCCGTTTCGCTGTCACAGCCCGTTCCCTCCC
GGAGCCCGGGACAGGCTGGGCGCGCGCCCGTGTGAGTGAGCGGGACTCAGGGCAGAAGTGTCCTTCACTGCGTT
TTTTTTTCTTTTATCCAAAGAACGGGGCAGTTAGTACGCTTGCCCTTCTGTCGCCCCGTTGGGAGCGGGGTGG
TGTGCGGAGTGGTTCGCCCTTTTTTCTTTAGAACTTGTGAGCCTTTTTTTTTTTTTTTTTTTTTCTTTCTTTTTTT
AGGCTCAGTGCTGTCCGGGCTGGTTTGCCCGGTCCCTGACTAACGGCTTCTGCCCCCTTCTCTCGCCACCCCTGC
CCAAGGTCGCCCCCTCTGCCCTTCGCCCCCTGTCCCGGGAGGGTGGGAAGCTTGACCCCGCCCTGCCACTCGCGTC
TCCGCAGCCGTAGCCGCGCCTGTCCCAATATGAATAGGGTCAACGACCCACTTATTTTTATAAGAGATATTAAGC
CCGGACTGAAAACTTAAATGTCGTCTTTATTGTCCTGGAGATAGGACGCGTGACCAAACCAAAGACGGCCATG
AAGTGAGATCGTGCAAAGTAGCAGATAAACGGGCAGCATCACTATTTCCGTGTGGGATGAGATCGGAGGTCTTA
TACAGCCAGGGGATATTATTCGGTTGACCAGAGGGTATGCATCCATGTGGAAAGGATGTCTGACACTTTATACTG
GAAGGGGTGGTGAACCTTCAAAAAATTGGGGATCTAGGTGCGGTGCAGGCAGCCGCAATGCGAGATTCCATACACT
ACTACCCTGGTAATGATCTCCACCCTGACCTGGAGGAGCCATCCTCTCTAGGGGTGTAAAGATTTGTATGGTTTA
TTCAGAAGTGCCAAATTTCACTGAACCCAACCCAGATTATCGAGGACAGCAGAACAAGGGGCACAGAGTGAACA
GAAGAATAATTCATGAATAGTAATATGGGTACAGGTACATTTGGACCACTGGGAAATGGTGTTCACACTGGCCC
TGAATCAAGGGAACACCAGTTTTTACATGCTGGCAGAAGCAATGGCCGGGGACTTATAAATCCACAACCTACAAGG
AACAGCTAGTAATCAAACAGTGATGACCACAATAAGTAATGGCAGGGACCCTCGGAGAGCCTTTAAAGATGACC
TATGCTAAATACTCATGTGTAGTTTTTATACTACATGCCCTACTTGAACACTTATTGCACTTTTATTTATTGTTA
ACTGTGAAAAGTACGTCCTTTATTGGGTTTCTTTTATATTCTTGGTTTGTTAAGAAGAATGGTTTGTTTTTATA
GCAAACTGTTAAGCTGCTCGAGTCTCCTGTTGAAGAATGGGAACACTGAAAAGTAGGGGCATTTATTTTTAGAG
TAAAAAGATTATTGGATAGCCTTTAAAAAACCTGCACCCATTTCTATGGGTGAGTTACTTAAGACATCAGCTTTAT
AGCCTCTATGAGTCTATCTTCTGTATAAGTTTTGTAAATTTTAACATAAGGCTTAATGGGAGATGTTCTTTTGTC
TTGTATTAGATATTGCCAACTAAAGCAATAACCATCAAAAAACACAAGAACTTGTCAATGCTAGCAGTAATTTT
TGAGTGTGTTGTGGCTCTCGGAATGATTGACTTCGTTCACTGACTACTATTAAGATTTTCCAAGGACTGACTCATC
CCAAATTTTTGTTGTATTACCAAAAAACAGATTTCCTTATCAGAAATTGGAATAGAATGTGATCTCTATTGCAAC
AAGTAATTTTAAAGAAAGCTACATTTATTTTAGAGTAGTGCTCCTAACATGTATTATCAACTTTGTGGATTACA
TTGGAGGAAAATTTAAACTGGGGCCTTGAATATTTATTTTTTGAACCTACCATGTTAAATACTGAAGTATAATT
TGGGGGAGTTATAAAGTTATGATAAACATTCATCTGATTATTTTAAACAATAGTTGTGGTAGATAAACATACTGG
AGGTGAGTAAATTTGAATTCATATAGTAACATGCAGTCTGAAGTCCTAGTTACTTAATAGGTACTCAGCCTGGAG
TGAAATCCTGGGTACTGACTTTGAGAGGAGTGAGTGTGCATGTTGTCAAAGTTTCTGAACACAGTTTACATAGC
CTTATTAGCAAAAGTTTTAAGAAATGGCTCTATCAAAGAAGCAATTGCAGCTTTATTAGAAATATAAAAGTGGA
ATTTATGTACATGTCATAAGTGGTACCCACTTCCCCTTTTACTGTAGGGTGGATAACTCTTAGGATTTAACTCT
TTGAATATTATCTCTTGAATAAAGCATGTGTTAATGTTAACAAACCTACGTAATTTTGGCCCTTCAATGACTTA
CAGTGGAGAGCCAGTACATCTTAACCTACTGTTGTAGTGATGGTATCAACCTCATGGTTACTTAGCTCTGCATTG
TTGCTTTGTTTTTTTTTCCACTTCAAATCACAAAATAAGTAGATTTTGTCTGAAAACCTCATAGCATTTGAAT
ACAAAAGTTGTGCCAGATTGTTTGCCCTAATTCAGTGTGTTTAAACAAATATTTAGTACACACTATGTATTAGG
CACTGTGTGGAAAGTGTAAAGGGTAGACAAGATACCGAATAATCTCCACAAGTTTATTTGTGGTCTATAGTACT
TTTGTAACTGGGGTTACAAAATTTATAGAAATTTTTTCTTTGTTTCATATGCATATTCATGATTATAATTTGGC
TTTGTGTTGTGATTAATGTTTTCTTAAGATTTTACATTATAGAATACCTCAAAGAAGTTGTCTAAGGACTGGGA
TAGAGAGTATGTTTCATAAAATTGTAGATGTTTAGAATTTTTAAAAACCCTACAAATTAGTATATGATTGTTTAA
TATAAGTAAGATAGGAGCAACACTTTAAATTATTTGTGGGAGAATACAGCATTAAAGGTGATTTTAAAGAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 1423

MNRVNDPLIFIRDIKPLKLNLVVFIVLEIGRVTKTKDGHEVRSCKVADKTGSITISVWDEIGGLIQPGDIIRLT
RGYASMWKGLTLYTGRGGELQKIGDLGAVQAAAMRDSIHYYPGNDLHPDLEEPSSLGV

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FIGURE 1424

GGTAGCGACTGGGGCTCCGTATTCTGTTCACTGGAGTGGGTTTTATATATACCCAATAAATAGAAGTGTGACTGG
CCTGTCCAATCTCGAAGTCAGAAAAGGGCCATGGGTAGCATCACATCCTTAGAGACTGGATGCAGTCACCAGACT
TTGAGGAAAGAGGGAAATTCATCCCAACCTGTCATGCTAGCTAAGAGAGCAAAAAGTCAAGAATATGAACAATGT
GACCTAGGCTCTGAAAGCTGACCAAGACACCATCTAAATAAACCTGGACTGACAATGAAAGGACTTTCGTTCTCC
CTTAAAATAATGTTCAAAATAGCAAGGAAATAGAGCTTCAGATGTGTCTTGTGTACCTGGTCTTTCATGTGACA
GTCAAAGATCCACAATGTGAAAGTGGGATTAACCCATCTGTGAAGTTCTAGTCTGTGCAGTCACAATTGACCACT
GCAGGTTTTAACAAGAGGACCCTGTGGGGACACAACAGACTTCAATTCCTTAGCCAGCTTTCCTTGGCTCAGAA
TATGGAGAGAGCTGGAGGCCCTCCAAACCAGAGGATGTTGCTGGTCTTCCCAGGAGAGAAATGAACTATCTTTT
GTAAAAGTAAGTTTCAAA

PC/US/BS

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FIGURE 1425

VATGAPYSVHWSGFYIYPINRSVTGLSNLEVRKGPWVASHP

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FIGURE 1426

GACTCTTACCTACTTCGGGGCCCACTTTGCTGTCATCCGCCGAGCGTCCCTGGAGAAGAACCCGTACCAGGCTGT
GCACCAATGGGCCTTCTCTGCGGGGTTGAGCCTGGTGGGCCTCCTGACTCTGGGAGCCGTGCTGAGCGCTGCAGC
CACCGTGAGGGAGGCCAGGGCCTCATGGCAGGGGGCTTCCTGTGCTTCTCCCTGGCGTTCTGTGCACAGGTGCA
GGTGGTGTCTGAGACTCCACAGCCCCACCCAGGTGGAGGACGCCATGCTGGACACCTACGACCTGGTATATGA
GCAGGCGATGAAAGGTACGTCCACGTCCGGCGGCAGGAGCTGGCGGCCATCCAGGACGTGTTTCTGTGCTGTGG
GAAGAAGTCTCCTTTCAGCCGTCTGGGGAGCACAGAGGCTGACCTGTGTCAGGGAGAGGAGGCGGCAGAGAGGA
CTGCCTTCAGGGCATCCGGAGCTTCCTGAGGACACACCAGCAGGTGCGCTCCAGCCTGACCAGCATCGGCCTGGC
CCTCACGGTGTCCGCCTTGCTCTTCAGCTCCTTCCTGTGGTTTGCCATCCGCTGTGGCTGCAGCTTGGACCGCAA
GGGCAAATACACCCTGACCCACGCTCTCCAGGGCAGAAGTCGCGGTGGGCTCAGTGGGTGCCCTGAGCGGGGTC
TCTCAGACTGACGTCAGGCCTTGGTGGGCTGCACTCTCACCTGGAGGCTCCGGGGAAGCATCTGCCTCCAGGACC
ATTGAGGCTGTTGACAAGTCAACTCCTCATGGCTGTAGGACTGAGGTTCCCAAGTCCTTGTCCTGGTCCTGTGG
TCCCTCCACCTTCAAACCAGCAATGGTGCATTGAGCAAATTGTGGTCAAATATACATCACATCAAATTTACCATC
TT

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FIGURE 1427

AGCAGTGGCCCCAAGAGGAGCAGCAGACAAGAGTGCAGTGGTGGCTGCCGCCGCACCAGCCTCAGTGGCAGATGA
CACACCACCCCCCGAGCGTCGGAACAAGAGCGGTATCATCAGTGAGCCCCCTCAACAAGAGCCTGCGCCGCTCCCG
CCCGCTCTCCCACTACTCTTCTTTTGGCAGCAGTGGTGGTAGTGGCGGTGGCAGCATGATGGGCGGAGAGTCTGC
TTGACAAGGCCACTGCGGCTGCAGCCTGGCCTTCCCTGTTGGCCAATGGGATGACCTGGCGGCGGCC**ATGG**CGGT
GGACAAAAGCAACCCTACCTCAAAGCACAAAAGTGGTGCTGTGGCCAGCCTGCTGAGCAAGGCAGAGCGGGCCAC
GGAGCTGGCAGCCGAGGGACAGCTGACGCTGCAGCAGTTTGCAGCAGTCCACAGAGATGCTGAAGCGCGTGGTGCA
GGAGCATCTCCCGCTGATGAGCGAGGCGGGTGCTGGCCTGCCTGACATGGAGGCTGTGGCAGGTGCCGAAGCCCT
CAATGGCCAGTCCGACTTCCCCTACCTGGGCGCTTCCCCATCAACCCAGGCCTCTTCATTATGACCCCGGCAGG
TGTGTTCCCTGGCCGAGAGCGCGCTGCACATGGCGGGCCTGGCTGAGTACCCCATGCAGGGAGAGCTGCCTCTGCC
ATCAGCTCCGGCAAGAAGAAGCGGAAACGCTGCGGCATTGTGCGCGCCCTGCCGGCGGCGCATCAACTGCGAGCA
GTGCAGCAGTTGTAGGAATCGAAAGACTGGCCATCAGATTTGCAAATTCAGAAAATGTGAGGAACTCAAAAAGAA
GCCTTCCGCTGCTCTGGAGAAGGTGATGCTTCCGACGGGAGCCGCCTTCCGGTGGTTTCAG**TGA**CGGCGGCGGAA
CCCAAAGCTGCCCTCTCCGTGCAATGTCACTGCTCGTGTGGTCTCCAGCAAGGGATTGGGGCGAAGACAAACGGA
TGCACCCGTCTTTAGAACCAAAAATATTCTCTCACAGATTTCAATTCCTGTTTTTATATATATATTTTTTGTGTGTC
GTTTTAACATCTCCACGTCCCTAGCATAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 1428

MAVDKSNPTSKHKSGAVASLLSKAERATELAAEGQLTQQFAQSTEMLKRVVQEHLPLMSEAGAGLPDMEAVAGA
EALNGQSDFPYLGAFPINPGLFIMTPAGVFLAESALHMAGLAEYPMQGELPLPSAPARRSGNAAALCAPCRRRIN
CEQCSSCRNRKTGHQICKFRKCEELKKKPSAALEKVMLPTGAAFRWFQ

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FIGURE 1429

GAGGCTACTAAGGTATTTGGCTATTATAAATAAAATAGTGATGAACACGTGTACAGGTGTTTGTACGGACATAAG
TTGTCATTTCTCTTGAGTAAATACCTAAAAGTGGGCTTGCTGGAGTTTTACTACCCTTGGATGCTGCTGTTGACA
TGGAAAAGATTGAGGAACAATTTGCTAATCTGCACATTGTTAAATGTTTCCTTAGGAACCAAAGAGCCCACTTACC
TTCTTGGTATAGACACATCAAAGACTGTCCAAGCAGGAAAGGAAAACCTTGGTTGCTGTTTTATGTTCTAATGGAT
CAATCAGAATATATGATAAAGAAAGGTTAAATGTACTACGAGAATTTAGTGATATCCTGGACTTCTTAATGGAG
TCAGATTTGCAAATTCCTGTGACAGTGTATATTCAGCATGTACTGATGGCACTGTGAAATGCTGGGATGCTCGAG
TAGCCAGAGAAAAACCTGTTCAAGGTTACCCCTCCAATATTTTTATCAGTTTTGATATTAATTGTA
ATGATCATATTATTTGTGCTGGTACAGAAAAAGTTGATGATGATGCATTGTTGGTGTGTTGGGATGCAAGGATGA
ATTCTCAGAATTTATCTACAACCTAAAGACTCACTTGGTGCATATTCAGAGACACATAGTGATGATGCTCACTCAAG
TACGTTTCCATCCCAGCAATCCCAACATGGTAGTCTCAGGTTTCATCTGATGGCCTGGTAAATGTATTTGATATTA
ATATTGATAATGAGGAGGATGCACTGGTTACAACCTGTAACCTCAATTTTCATCAGTAAGCTGTATTGGTTGGTCTG
GGAAAGGTTATAAACAGATTTACTGCATGACACATGATGAAGGATTTTATTGGTGGGATCTTAATCATCTGGACA
CTGATGAACCAGTTACACGTTTGAACATCCAGGATGTCAGAGAAGTAGTTAACATGAAAGAAGATGCTTTGGACT
ATTTGATTGGTGGCCTATATCATGAAAAGACAGACACATTGCATGTTATTGGAGGAACAAACAAAGGAAGGATTC
ATTTGATGAAGTGCAGCATGTCAGGACTGACCCATGTGACTAGCCTTCAGGGAGGGCATGCTGCTACAGTCCGTT
CTTTCTGTTGGAATGTGCAAGATGATTCCTTTGTTGACTGGAGGAGAAGATGCACAGTTGTTACTTTGGAAACCTG
GAGCTATAGAGAAGACCTTTACAAAGAAAGAGAGTATGAAAATAGCATCCTCTGTGCACCAACGAGTACGAGTTC
ATAGTAATGATTCTTATAAAAGAAGGAAAAAGCAGTGAATAATGCATTTGGCACTTTGTTTGGTAGGTTTTATAGT
TTCAAATAGTCCTTCTGTTTACTACCCATGGTAGACATGTTTAAAGCTTTATGTAAAAACAAGCCAGTTAGCAA
ACAGTCCTGGAAAAATATGGTGAGAATGGTTAATTCCGGTCTTCACATATTCTAAAAAATTTTAAAGCCTCTAA
GTATAAAATCAGTGAGTTGAAAGTAAAATTTCTTATTTAAAGAACCCATCTGTTAATGTAGTAAATGTTGGCTTT
AAAGAAATAGCTCCGATAAGGACTTTTTAGAAGGAAATACTTGGTAAACTTAATAAAACAGGTGGTTGGCTGCA
TTTTTTAAGCCCAGTTTTTTACATTTTAAATTGCTTTTATTGTGTATAAAACCAGATTAGACTATATTCTTCATC
TGAGGAGCATCTATATGTTTAATACACCTAATGTATTATGCTGGAGTATTTAAATGTAAGTATTTTAAATGAGTAA
ATAGAATTAACCTTTTTTACAATGAAATGATAGGCATCTATGTAAAGTGAGAAAAATATGTTTCGTAAATATTT
GCATCTTTAATATTGTTAGTAAGTAGTAAACAGGTGTTTTGCTGATTGAAAGGAAGTTATCTTGGTAAATTGAGA
CTCAAAGTGAAATACAAAAATGAAAATATTTATAATAGGACTCGACTTGGAGAAATGCTATTCTTCCTGTTGTC
CAAACATAAATCTGAGGATAACCTGGGCTTTTCTCTTTCTCTCTCTAACCAGTTTTTACCAAGTCCTGTG
CCATTTACCTCCTAACGTCTGTCTAGCTATCCTTTTGCTTTACCTCACCCTATTACCCTAGAGAAGACTTTTCA
TTATTTCTCATCTGGATTACCAGCTCGATCTCTAATCTGCTTCAGTTTCATCCTTCTTGCTACTTCTAGGCTAAAC
ATCAAAAACAGATCTGGTAGGGGCGGGGAAATGAGGGGGAAGAAACAAAAACGTGATGGTGCCTCATGCTGCTTA
AAATCTTCAGTACATTGATGTTTTGATGGCGGACTACATAAGCGTTAAAAATTGTGTTTTTTCAGAACTTTTAAAA
TATAAGACAGTGCTATCTAGTGAATAAAAAAATTAGTTTTGAAAGATATCTGGAGAAATCGCATTCTATAAAACAAT
TGGAAGTGAACTATTTAAACAATAGGGCTTTTTAAATTTAAAAATATTTAAATTCAAAAGTAATTAATAGTGT
TGGAAGATGTAGGTGAGAAAAATATCCTGAAAGTAGAACTGAAAGAGACAAAGAGAAAAGATGAAAGCCACAGAA
GATAAATACAGGGGTCAAAACCAGACTAACAGTTTTAGAAAGTGAAAAAAGTTAAAAAGAAATGGGGGCAGTGG
GTTATTAGAAATAACATAAATGGCTGGTATGGTTTGTCTGTGTCTCCTCACCCAAATTCATCTCGAATTGTAATCC
CCATAATCCCCATGTGTCTAGGGAGAGACCTGGTGGGAGGTGATTGGATCATGGGGGTGGTTTCCCCTACGATGT
TCTCCTGATAGTGGGTGAGTTCTCACAAGATCTGATGGTTTTATAAAGGGCTCTGCCCTTTAACTCCTCACTCT
TTCTCCTGAAGCCTTGTGAAGAAGGTGCTTTGCTTCCCTTTGCGTTCCCCCATGATTGTAAGTTTCTTGAGGCC
TCCCTGGCCATGCTGAACTCTTCAGTCAATTAACACTTTTCTTTATAAATTAATAAAAAAAAAAAAAA

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FIGURE 1430

MEKIEEQFANLHIVKCSLGTKEPTYLLGIDTSKTVQAGKENLVAVLCSNGSIRIYDKERLNVLREFSGYPGLLNG
VRFANSCDSVYSACTDGTVKCWDARVAREKPVQLFKGYPSNIFISFDINCNDHIIICAGTEKVDDDALLVFWARM
NSQNLSTTKDSL GAYSETHSDDVTQVRFHP SNPNMVVSGSSDGLVNVFDINIDNEEDALVTT CNSISSVSCIGWS
GKGYKQIYCMTHDEGFYWDLNHLDTDEPVTRLNIQDVREVVNMKEDALDYLIGGLYHEKTDTLHVIGGTNKGRI
HLMNCSMSGLTHVTSLQGGHAATVRSFCWNVQDDSLLTGGEDAQLLLWKPGAIEKTFTKKESMKIASSVHQVRV
HSNDSYKRRKKQ

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FIGURE 1431

GAAAAATGAAACGTCTTTGTGGTCCGGGGCTGAGACCCACGAGGAGACTGGGCGGGATTCTGGCGTTAGGAGGC
GGGGCCTTTTCGGCTTTGGGCGCGAGTGGTTAAAAGACAGTTGGTGTTCGGTTCGGCTTCTCGGGTCGGATTCCGCG
GTCCCAACCCCTTCCCATGGCCGACCCTGAGGAGTTGCAGGTTTCTTCGCCGCCCCCGCCGCTCCCTCTTCTCC
CTCCTCTTCAGACGCCTCTGCAGCATCTTCCCCGGGCGGCCAGTGAGTTTGGGCTGGCCAGTTCCGAGCAGGAG
CAGCGGCCCCAACGGTGGACCAGCTGGAGGAAGTGGAGCTGCAGATCGGAGACGCAGCCTTTTATTAAACAAACT
TCTTGAAGCCACATCTGCAGTATCAGCTCAAGTGAAGAAGTTGCCTTCAAATGTACAGAAAATGCAGTTTCCT
TAAAACGTGGCGGGACCTCTTGAAAGAAGGCTATGATTCTTTGAAACCTGATGACTGATTGTGGCATACTTCGTTG
TTTAATAATGACTGCAATAATTCATACTTCTTATGTCATATTTGTACATGTACCACACATATAGGATGACCTCT
GTCCAGCAGTTCTGTATATACTCAGAATGAAATTTTCTTGGTTTTCTTGGTTTTGTGAAAGCAGAATACCGAT
GCTATTTTTGTTGCGGACCAGTACTTGTTCCTTAAATACTTTATGCCTCTGAACTTTCATAGAATCCTTTAT
GAAAGTTAACTTCATCAATAGACGGTTAATATTAATAGAGCCACAGTGCTACCAGTAGCAAACCTAGGTAGACCAT
TATTTGTTTTGCAACAAGATGCTAAGCATGGCAGACTTTGAAGTTGCGTTTTCATCTTAAGGACCAAGGGAGGTAA
CTTTAAGGTTGCCAGTGGTGGATCCAGCTCCGTTAGGCTAAGTTGTCTACAGCTAATGATTGTGTCTTTATTCTA
TATCCCCAGCACCTAAAACAGGGTCACACAACATTCACTAAATGTTTGTGTAATAAAAGAGTTAACAACATAAT
TGAAAGCTTTTTTCTTCCATATTTTAGCATGAAGACTGTCATTGTTTCTCTAGGAAATGTATGAATCTGAACCT
TTTTGACTTGAAGAAAAACATTCTTTTTTACAGAGATTTGGACTTTGATGATAGGTTTTAAAAATATATGATAA
ATATTTTTTGTACTTGTGTTGATTTTTTTTTTAAAGACTTTACTTCAGAAAGGGAAAGACTGTTTAGAAAGAATGC
ATATTTTTTCCCTATTTATTTCTGTGGTTACTGCTTTTGCAGTTTAAACAGTGTGTTGATTTGATATTTGTATATG
TTTGATTGCTATCTTAAAGTGCCTTATCAGATTTATGGCTCTGTGCTATTACTTTTTGAGCTTTGCAAGTTGTG
TACATAATAATTCTAAAGAAGTTACTTTGTTTGCAATGCATCAAATTTAAATGATGTGATTTTTTTTTGTATTATT
TGATCTTAGTGACAGTGTCTATTTTGCACTCTGTATCTTATGTTGCTTTTGGTGTGTTGTGTGTGTCACCG
ATTAAGCCAATAATTCTCTACCATATATAACTTCTGGACATTTTTGATACAACATCTTAATTCTTTGTAGATAT
GGAGATAGGTACAGAACTATATTCTAATGCCCCACAATGGGGCTATGAGAGGGGACAGATGGATGGGCAAAGAAT
AGTTTTGTTTAAACATATTAGGTCATAGTTCTTGATTAGTTTTTTTTTAGTTAAAGATAAACACATAGGGTGTGATTT
CTATACCAAAGATATGCTTATTTTCAGTATTAGAAAAATATTCTTCTTACATCTCCTGAAAATTGCAATTTTTTAA
ATGTGTAAAAATAAATTATTATTAAAGCACATTTTATTTCCATTTGTTTGGATTCACTTAAACTTTTATT
GACATATTTCAAAGATATAGGAAAGGTAAATGATTTCAAGAAAATCCGTGTATTTCTACCATGCAGATGTAATAA
ATGTTAGCATTTGGCTATATTTTCTTCAGACACACATATGCATGTAATTGCAAATGTTAGATACATTTGAAGTTT
GCTTTGTTACCTGTTTGATCCTGTCCCCTTCCCTCCCTCCCGAGTCCCCAGAGGTAACCACTAGAGGGGGCATA
ATATAGCATGTGTTTTATATTTTTAATACAAATATATTTTTTAAAGCGCTACAAAATATTGTTTTATATATGT
GGTAGCCAGCTTCAGATGGCCCCAGTGATCCCTGGCCTCCTGGTGTTCATGCCCCAGTATAGCCTTCTCCTGCA
TTTTACAGTGCTGACTTTTGTAACTACCAGGATATTGAGCAAATGCAGTGTGTGATTCTGAGGCCATANNNNNN
NN
NN
TTTTTGCTCATTTTCTATGTTGTTTTTTTTTACTTGTCAGTTTTTAGATATTACATATTTGAATACTAATGATC
TGTTATGTATGTTCCAATTATCTTTTTTAGTCTGGTTTGTCTTCATATTTGGTTATGAAATCTGAATTTTTAA
AAACGTAATTTTACCAATCTTTCATAATGATTTGCTTTTTCTGGTTTTTGTATAGGAAATGTCATAAAAAATAGTC
CTATTACAGCTTCCAAAAGTTACAAAATTTTTGGTTTTAACATTTAGATGTTTAGTCCAACCTGAAATTGTTTTCT
TTTATGGCATGATTTTGGAACTTGTTTTAATTATTTTACATATTTATAGCTGTTCCCTCCAAGTATCAATTTTT
CAAGTGCAACATCTGTGATGCAGTTACTATGTAAGGGCCAGATTCTGACCTTTCTGTTCTTTTTATCTGAAGGAA
ATTTGAACATGCCACCCCCAAATATGCCGATTTGGCATACTGATTATTTTCGAGCTAAAGGTGCTTGACTAACAGT
AGTTGCAGAAATGGCTATTTTAACTGTCCTTTTCTACCTGTAGCAAGCCATACAAACTTCTTTGATAAAGATGCT
TTCTGATACCAAGATGAGAAGATGGCTCTAATCAGCTGAGACAGCACCAGAGGAATCTACAAACAAGAACTAT
TAGTTTCTTAACATATATTTACCTTCCACAGTTTCTGCCTCTGGAAGCCTAAAACCTGCTTTCCTTCGTCTTGTC
CACTTCTCTGAAATGTATTCTTTGTGGAAGATGCTATATAGTCCAGAGTTGTAAGCCACTACTTGTGTTTACCTT
TTCATTGAGTTTTCTCCTGTGTGATGTACGTTGCATATATTAATAAAATTACTTGTTTTTCTCTT

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FIGURE 1432

KMKRLCGPGLRPTRRLGGISGVRRRGLSALGASG

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FIGURE 1433

GTAAAGCATTGCTTGAGGTTGCCCAGGTAGTTTCGCCTTACACTTCTTGTCCTCCAGTGCAATTATTAGTAGAGCTC
CCTTTCACGTGTCAAATTTCCGGTTGGGGATAAATTGCATTGTCGTTTTGGTTTGAGATAGGAAGATGAGGGGAGG
AAGGAGGTGAGGCGGTAAGGGGCGTTCTCTCTCTTGGGTCCCGCGCCCAACTTCCGCTGGCCCAAGAACTATA
ATTTTGAACCAACAGACCTCTGCTGGCATCTGCGATTGCATTTTTCCTGTTTTAACAACGGCTGTGCTAGACGAA
GTGGTGAAGCCCAAAGACTTATTTTTGAGCTCGCTGTAAGACTGAGAAATCACGTAGTCCTTCCTGAAACCACTA
AGAGGAAAAATGCTCTGTGACACTGCATACAGATGTAGGTGATATTAATAATTGAAGTCTTCTGTGAGAGGACACCC
AAAACATGTGAGATGGAGTCTCGCTGTGTCCCCAGGCTGGAGTACAATGGCGCGATCTAGGCTCACTGCAACCT
CCGCCTCCTGGGTTCAAGCAAGTCTTCTGCCTCAGCCTCCCGAGAACTGGAAGAGGAGGCAACAGTATTTGGGGC
AAGAAGTTTGAGGATGAATACAGTGAATATCTTAAGCACAATGTTAGAGGTGTTGTATCTATGGCTAATAATGGC
CCGAACACCAATGGATCTCAGTTCTTCATCACCTATGGCAAACAGCCACATTTGGACATGAAATACACCGTATTT
GGAAAGGTAATAGATGGTCTGGAAACTCTAGATGAGTTGGAGAAGTTGCCAGTAAATGAGAAGACATACCGACCT
CTTAATGATGTACACATTAAGGACATAACTATTTCATGCCAACCCATTTGCTCAGTAGCTATGATAGACCTGGACA
AATAACTTGACAAATTGCTGGAACACACTTATTGTGGTTTACCCGGTTTTAATTATGAGCCAGCTTGACGTGGTT
GTGGCCGTTGGGCGAGATGAAGCTACACTGTGAGGTGGAGGTGATCAGCCGGCAGCTTGCCCGCCTTGGGGCTTAG
GAACCGGGGCAAGGGCGTCCGAGCCGTGTTGAGCCTCTGTCTAGCAGACTTCCAGGAGTCAGCCGCCGGTCCGAGC
CTTCTGCTCATCTCCACCCTGAAGGACAAGCGCGGACCCGCTATGAGGATTCCATATGGCTCTCATATCATTC
CATTCCATCTCTGCCAAGATTTGGATACCGCAAAAATTTGTGTTTGTGGAAGATTCTGTCTGAACTCTTTCATTC
AAGGAACTACTACCATGAATCTGCATTCTGTTGCCACACTGTGGTCTTAGTAGATAATTTGGGTGGTACTGAAG
CACCTATTATCTCTTATTTCTGTTCTCTAGGCTGTTATGTTAATTCCTCTGATATGTTAAAGTAATGGGTGAGAC
CAGAAAAAGAAATTTCAATAACAGATCAGTTTGGGGTGCATGTATGATTTTGAGCGTCAAATTGGAGTAAGGA
AGATTTCTGTATACTTGCTGGAGAGGAGGAATGTGTATAGTTACTCATTTAGATGACTCCAAAACCTTTATTAAA
ACCAATTTTAGTTTT

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FIGURE 1434

MSVTLHTDVGDIKIEVFCERTPKTCMESRCVPQAGVQWRDLGSLQPPPPGFKQVFCLSLPRTGRGGNSIWGKKF
EDEYSEYLKHNVRGVVSMANNGPNTNGSQFFITYGKQPHLDMKYTVFGKVIDGLETLDLEKLPVNEKTYRPLND
VHIKDITIHANPFAQ

FIGURE 1435A

CTTGGCTCTCTGTGCCTCAGTTTCTCATCTGTGAAGGTGGGGATAGATGATGGCAATACCTGCTTCAGAGAGTGA
AATTAGATGAGATGATGTCTGTAAAATTACGTAAAGACGGTACCCAAAAGTAGTACTATTTTTCCCTTTTCTTATT
AGAGCAGGTTGGGCACGTTTTGTATGTCCGTGGGAATGAGCAGGTAGAGAGGGTGGTATTGAGGCTGGAGGGGAGA
GAAGGGACCCACAGATGGGGAGAGAAGTCTTGGGTGCCTGTTTTATCCCAAACCAGGGGAAGGAGGGAACAGGTA
GGGCTGGCTGCAGGAAAGCTTGCAGGTATGGGGTACACAGTTAAAAGGGAGTGTCTTCTGATAGTCTTGATGCAG
GCCTGGAGGTGCTTTGTTATGGGGGTGGAGGTCTGTATGTACATTGTGGCGGTAAGATGCCGTGCTGTCTTTGCC
ACCAGCCTGTGGCAGCCCTGGTGTACACCAGGGCAGGTGGGCAGTTTAAATGTATCTCAGGCCAGATGACCTGCC
CTGCCCACCTGTTGAGGCTCCAGTAGATAGACGTGAAAGCACAGTATAAGCATAATGCACCACCTTAAATCCTTTT
CTCTGAGGAGCTGGAAGGCCTGTAGTCACCATCTGAGCCAAATGTCATTCAAGTACTTCACTTGGGTACACACC
ACACTTTGACCCACTATCTCATTTAGTCATCACAACAAATGGGTGAANNNNNNNNNNNNNNNNNNNNNNNNNNNN
NN
NN
CAGGATGGAAAGATGTGTAGGGATTGTCTTCTCCATTGATAGATGAGACAAGAGCTGGGTACTCTGATCTCCAT
CCCAAGCACACAGAGCTTGGGGCCCCACAGGCCTGGTGTGAATCCCACTCCACTACCAGAGGCTGTGTGCCTTTG
GACCAGGCATCTTGCTTCTCTGACCCTATATACAGCTGCAGAAAGAAATTCCTTGCAGGTTGCTGTAAGGATTGGA
GGGAAACTGTTGCCCAGCACACAGTACACATTCTGGGAGCCATCGTTTCCCAGTGCACTTTTCTGCAAATGTG
GATCTACATCCCACTTGATGCTGAGACCAGCTGCTGTGATCTTGCAATTGTTTAGCGCTTGTCTCCTTGAGG
CAGTAAAGTGGTGGCACCTGACCGGAGCATGTAGCCACCTATGACTTCCTGAGTGGGTGGTGTGGGGAGGGGCC
TGÀGGAGTCTGTGGTCTTAGGCCTTGGAATTCATCAGGGCTTTCCTGCTCCTTCTGGTTGCCTCAGTCCCAGGCA
AGATAGGGTCCCAGAATCTTACAGCCCAGAGGCCACCTGTTGCAACTTCTTTTTTACAGATGGAGTCATCAGAAC
CCACTGTGAGGAAGTGACTTCTCCTTGAGGTCACCAGACACTCCAAACAGAGCAGAGCAAAAGCGCCTAGA
TGAATTTTGGACCTGTCTCCAACACCCTGGGGATTTCACCAGGAAGCCTTCAGTCACCATCCAGGGGATTTTT
ATCGCCACAAAGGGTAATTCCTGCTCCATCCCTGCTGTGACTCAGCTGTGACGTTGAACCACACAAGCCAGAGAG
AAGAAGATAAAGTCATCAGAGCTCCTACTCACCAGAGAGTGAGGGCCAGGCCAGGACTCCACAAGGCTGGTCCCC
TGCCCTGGAGCAACTTAAACAGGGCCCTCTGCCCAGCCTGGAACCCCTGAGATGGCCTCCAGCTCAGGCAGAGTCC
TCGCCCCGGCCCCCTGATGAGAATGAGTTTCCCTTTGGGTGCCCTCCCACCGTCTGCCAGGACCCAAAGGAGCCAG
GGCTCTCTGCTGTGTCAGGCTGTCTCTCTGAGAACCCGAGGAATGGCGAGGATCAGATCTGCCCCAAATGCAGAGG
GGAAGACCTCCAGTCTATAAGCCCAGGAAGCCGTCTTCGAACCTCAGGAGAAGGCTCACCCGAGGTGGCTGAGGC
TGGAATTGGGTGCCCTTTGCAGGTGTGCGCTGCTCCTTCAAGGGAAGCCACAGTCTGTGCAAGAGCATGAGGT
CACCTCCCAGACCTCCCACCTAAACCTGCTGTTGGGGTTCATGAAACAGTGGAAGGCCCCGGCTGGGCTGTGGCCT
GGAGTCTGGGCCCATGGCCCTGGAGCAGAACCTGTCAGACCTGCAGCTGCAGGCAGCCGTGGAAGTGGCGGGGGA
CCTGGAGGTGATTGCTACCGGGCACCTGCTCCGAGAGCCAGGAGGAGCTGGCCCTGCAGCACTTCATGAAGGA
GAAGCTTCTGGCTGAGCTGGAGGGGAAGCTGCGTGTGTTTGAACATTGTTGCTGTCTCAACAAGGAGGTGGA
GGCCTCCCACCTGGCCCTGGCCACCTCTATCCACCAGAGCCAGCTGGACCGTGAGCGCATCTGAGCTTGGAGCA
GAGGGTGGTGGAGCTTACGAGACCCCTGGCCCAGAAAGACCAGGCCCTGGGCAAGCTGGAGCAGAGCTTGCCT
CATGGAGGAGGCCTCCTTCGATGGCACTTTCCTGTGGAAGATACCAATGTCACCAGGCGGTGCCATGAGTCGGC
CTGTGGCAGGACCGTCAGCCTCTTCTCCCCAGCCTTCTACACTGCCAAGTATGGCTACAAGTTGTGCTGCGGCT
GTACCTGAATGGAGATGGCACTGGAAAGAGAACCCATCTGTGCTCTTCATCGTGATCATGAGAGGGGAGTATGA
TGCGCTGCTGCCGTGGCCTTTCCGGAACAAGGTACCTTCATGCTGCTGGAACAGAACACCGTGAGCACGCCAT
TGACGCCCTTCCGGCTGACCTAAGCTCAGCGTCTTCCAGAGGCCCCAGAGTGAAACCAACGTGGCCAGTGGATG
CCCACCTCTTCTTCCCCCTCAGCAAACCTGCAGTCACCCAAGCACGCCTACGTGAAGGACGACACAATGTTCTCAA
GTGCATTGTGGAGACCAGCACTTAGGGTGGGCGGGGCTCCTGAGGGAGCTCCAACCTCAGAAGGGAGCTAGCCAGA
GGACTGTGATGCCCTGCCCTTGCCACCCAAGACCTCAGGGCACAAAGATGGGTGAAGGCTGGCATGATCCAAGCA
AGACTGAGGGGTGCACTTCGGGCTGGCCATCTGGTTAGGATGGCAGGACGTGGGTGGGCCCACAAAGGCAAAGG
GTCCAGAAGGAGACAGGCAGAGCTGCTCCCCCTGTCACGGACCATGCGACACTGGGAGGCCAGTGAGCCACTCCG
GCCCCGAATGTTGAGGTGGACTCTCACCAAATGAGAAGAAAATGGAACCAGGCTTGGAACCGTAGGACCCAAGCA
GAGAAGCTCTCGGGCTAGGAAGATCTCTGCAGGGCCGCCAGGGAGACCTGGACACAGGCCTGCTCTCTTTTTCTC
CAGGGTCAGAAACAGGACCGGGTGAAGGGATGGGGTGCCAGTTTGAATGCAGTCTGTCCAGGCTCGTCATTGGA

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FIGURE 1435B

GGTGAACAAGCAAACCCAGACGGCTCCACTAGGACTTCAAATTGGGGGTTGGATTTGAAGACTTTTAAGTTTCCT
TCCAGCCCAGAAAGTCTCTCATTCTAGGCCTCCTGGCCCAGGTGAGTCCTAGAGCTACAGGGGTTCTGGAAACAT
TCAGGAGCTTCCTGTCCTCCCAGCTCCTCACTCACCTTCAGTAACCCCCACTGGACTGACCTGGTCCACAGGGCA
CCTGCCACCTTGGGCTGGCAGCTCAGCTTCCCCAACACGCAGGAGCACACCCAGCCCCACATCCTGTGCCTCC
ATCAGCTAAACACCACGTCACCTTCATGCAGGTGAAACCCAGTCACTGTGAGCTCCCAGGTGCAGCCAGAGGCACC
TCAAGAAGAAGAGGGGGCATAAACTTTCTCTTCTCCTGCCTAGAGGCCCCACCTTTGGTGCTTTCCAGAAATCCCGTA
ACACCTGATTAACTGAGGCATCCACTTCTTTTCAGCAGACTGATCAGGACCTCCAAGCCACTGAGCAATGTATAAC
CCCCAAGAAATAATTTTTAGAACTCTCTTTTCGAAGTTTTCTTAAAGTGATGGTTTGGGAGTTGTTTGTACTGAGC
CAGGTTTGAAGGAGCCATTGCTGAGTTTGGGTGGTGCCACCAGTTTTGCAGGTGGCATCAGAGGCTGGCATGCT
GGCAGGAACATCCCCTCTTAGCCCCAGTCTTCTCTTTCTATAATGAGACCCACCCAGCTTGCCTCCCTCCCTG
GCTTCTCTGACCCTCAAAGGAGATGCCACGCAGGACAGACTGGAGAGAGAAGCCTGGGCAATACTGCCCGCTGT
CATGGCCTGGTGGTGGCCACACCTATCTTCTCACCTTGGAGGCCACACCCAACCTTTCCAAAGACCCTGAGACAA
GTCAGGACCTACTACTCTCCCTGCTGCTTTTCTGACAGCTTACTCTTCTCCACCTGCTGAGCCTGTGCCAGA
CTCCATTGCTCAAATCGTTAGGGTTGCTTCTATAAAAATGGGTGAGTAGCCCTTCTGTTCTCTCCAGCCCAGCA
TACAGGAGGATCAAAGGAGGTGACGGAGCATCGTGGCACGGCAGTCTCAATGGGTGAGAAACCCAGGCCAGCTGG
GCTCTAAGCCTGGCATCCTGTCTATGCTTAGTCTTCAGCTGAAGATCAGAGGAAGCCTCTCCCTTGCCTCTCTCCA
GCTCTAGGGGTTTTTTCAGGAGGCCCAACTGCAATAATGGAGCACTAGTGCTTTTATGTGCAATGGTGTGCTCCATG
CACGACAGCAGCAAACATTCTGGGGCTGCTTTTTATTGTTCCACGGCTGACAGCGTGGCAGCGGAGACTGTGGA
GGCAGTGGAGACTGACTTCTTCTGCTGACAGCTGGATGTCACACATGAAGGTCTGGCCTAGCGAGTGATGGGTC
TAGGCCCTGAACTGATGCTCTAGCAATAACCTCTTGATCCCTACTCACCGAGTGTTGAGCCCAAGGGGGGATTT
GTAGAACAAGCCCCCATGAGAAACAGCTGTTACTCTACACTTTTGATTGCCTATTTCTGATGGCAAGAGATACAT
ACTCTCTTCAAAGAGCATGAGATGCAGCCATTCTTTCAGCAAAGCTTCATTGACACCTGCACCTGTTAACTGTGT
TCGACATTGAAGGGAGAAAGGCAAGATGTGCACTCTGGACTCAAGAACTCTTAGTTCACTGGAGGAAATGAGCA
GATAAGTAGATCATTATGATTGAGAGTAGGAGAAGCTTAGAGAAAGCACAGAACCCAGATCCAGCTGGTGAAGG
AGGGAAGGCTTCAGGCCTTTAAGCTCAGCCTGAGAATATTGTGAAATGCAGAGGATGGGGAAAGGGAAGAGTAC
CGACTTGAAAACGGAGAGCTGTCTTGGCTGAGGGCAGGGTCTGTGTGGCAGGATGGGGGAGGGAGTCAGAAGGGT
CAGATGAACTGGAGTGATAGACAGCATCAGATGCAGCAGTGCCACCGCCCCCCCCCAACCCCCGCCCTGCCCCA
CAGAGCACCTGCTGGTAACCTGGGCCTATTGAAAGCAGGATGAGATGATAATTTAAGACACTGAATGATTTCTT
TTCCAACAAAGCTCTATGTTAAGTGCATCAAAGATGTGACATTGCATCTTTTACAGGTGATTCAAGGGTGGGGGA
GGCAAGATGCAGGCAAAGCCACCGTTTCACTGGGTGGATTCACTAGGTCCCCACCCCAAGCAGTTCCCGAAGGT
GCTGGGGAGATTTTTAAACACCAAGTGACAGAATCTCACCCCGTAAGTGATAAAGCCTGAGCATCAGGATGAAG
TCTCCTGCAGGGGAAGGTTCTGATGCCCCAGTCAAGTCTGACTGGCCGTTGGGGGCGAAAGGTGTGACTGAAGCA
CTGACAAGGTGGGTGGAGGCACTAACCTGTAAACACCTCCTCTGGCTTGGAAAGTTTTGCTTCACTCACTACAGCT
GGAACCTCCGGGGGCAAGGCAGAAGGGCCAGAACAGGGAGGTCTTCTACTGAGGGGCTGTCTCATCGATGTCCTGAG
ACATTTGTGGAGCTTCTGGTATACACAGTGACAGACAGTTTCCCTTGAGAAGCTGATTGTCTAAAAGTGACACAAA
CCCTCTTCTGCCACGTGCCCCCGAAAAGCCCATCAGAAACCTGAATGGCTTCCCGTTGCCAACTGAAGCATCCT
CACCTGTACATTAGAACCCCTGCGGAGACTTCATCCTGATGCTCAGGCTTTATCACTTAACAGCCCCTGAAGT
GCACTTAGAATACCAGGTGCTGCCGGCTCCTGGGTCTGGCCATAAGGTGCGCTCCTTACTTGGTTTTCTCTGACTC
CTAATCCAAATGAGCCAAGGGTCTGAGGGGCTGCACAGGCAGTAGGTGTGGAGCACAGCTCTGAGCCCAAGCCTG
GGCCTCCAAGCTGCGCTGCTGCTGTAGGGCCTGATCTCCACCTATCCCTTCCCTGCAGGTACCTTCATGCTGC
TGGACCAGAACAACCGTGAGCACGCCATTGACGCCTTCCGGCCTGACCTAAGCTCAGCGTCTTCCAGAGGCCCC
AGAGTGAAACCAACGTGGCCAGTGGATGCCACTCTTCTTCCCCCTCAGCAAACCTGCAGTCAACCAAGCACGCCT
ACGTGAAGGACGACACAATGTTCTCAAGTGCATTGTGGAGACCAGCACTTAGGGTGGGCGGGGCTCCTGAGGGA
GCTCCAACCTCAGAAGGGAGCTAGCCAGAGGACTGTGATGCCCTGCCCTTGGCACCAAGACCTCAGGGCACAAAG
ATGGGTGAAGGCTGGCATGATCCAAGCAAGACTGAGGGGTGCACTTCGGGCTGGCCATCTGGTTAGGATGGCAGG
ACGTGGGCTGGGCCACAAAGGCAAAGGTCCAGAAGGAGACAGGCAGAGCTGCTCCCTCTGCACGGACCATGC
GACACTGGGAGGCCAGTGAGCCACTCCGGCCCCGAATGTTGAGGTGGACTCTACCAAATGAGAAGAAAATGGAA
CCAGGCTTGGAACCGTAGGACCAAGCAGAGAAGCTCTCGGGCTAGGAAGATCTCTGCAGGGCCGCCAGGGAGAC

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FIGURE 1435C

CTGGACACAGGCCTGCTCTCTTTTTCTCCAGGGTCAGAAACAGGACCGGGTGAAGGGATGGGGTGCCAGTTTGA
ATGCAGTCTGTCCAGGCTCGTCATTGGAGGTGAACAAGCAAACCCAGAGGGCTCCACTAGGACTTCAAATTGGGG
GTTGGATTTGAAGACTTTTAAGTTTCCTTCCAGCCCAGAAAGTCTCTCATTCTAGGCCCTCTGGCCCAGGTGAGT
CCTAGAGCTAÇAGGGGTCTGGAAACATTACAGGAGCTTCCTGTCTCTCCAGCTCCTCACTCACCTTCAGTAACCC
CCACTGGACTGACCTGGTCCACAGGGCACCTGCCACCCTGGGCCTGGCAGCTCAGCTTCCCCAACACGCAGGAGC
ACACCCAGCCCCCACATCCTGTGCCTCCATCAGCTAAACACCACGTCACTTCATGCAGGTGAAACCCAGTCACTG
TGAGCTCCCAGGTGCAGCCAGAGGCACCTCAAGAAGAAGAGGGGCATAAACTTTCTCTTCTGCCTAGAGGCC
CACCTTTGGTGCTTTCAGAATCCCCTAACACCTGATTAAGTGAAGGCATCCACTTCTTTCAGCAGACTGATCAGG
ACCTCCAAGCCACTGAGCAATGTATAACCCCAAAGAAATAATTTTTAGAATCTCTTTCGAAGTTTTCTTAAAAA

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FIGURE 1436

MASSSGSSPRPAPDENEFPFGCPPTVCQDPKEPRALCCAGCLSENPRNGEDQICPKCRGEDLQSI SPGSRLRTQE
KAHPEVAEAGIGCPFAGVGCSFKGSPQSVQEHEVTSQTSHLNLLLGFMKQWKARLGCGLESGPMALEQNLSDLQL
QAAVEVAGDLEVDCYRAPCSESQEELALQHFMKEKLLAELEGKLRVFENIVAVLNKEVEASHLALATSIHQSQLD
RERILSLEQRVVELQQTLAQKDQALGKLEQSLRLMEEASFDGTFWKITNVTRRCHESACGRTVSLFSPAFYTAK
YGYKLCLRLYLNGDGTGKRTHLSLFIVIMRGEYDALLPWPFRNKVTFMLLDQNNREHAIDAFRDLSSASFQRPQ
SETNVASGCPLFFPLSKLQSPKHAYVKDDTMFLKCIVETST

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FIGURE 1437

GGGGGCGCGGCCGGTTACTCGCTTACCGGAGGCTTCAGTCCCCGGCGCGCGGCGACAGCTAGGGTTCACGGCCA
CTGGGGCAGAGGAGCCGCGAGAAGATGTGGGTTTTTGGTTACGGGTCCCTGATCTGGAAGGTGGATTTCCCTAT
CAGGACAAGCTGGTCGGATACATCACCAACTACAGCAGGCGCTTCTGGCAGGGCAGCACGGACCACCGCGGGTC
CCCGGCAAGCCTGGAAGAGTTGTGACTCTTGTGAAGATCCTGCGGGATGTGTATGGGGTGTGTGCTTACAGATTG
CCAGTAGGAAAGGAAGAAGAAGTAAAAGCATACCTTGACTTCAGAGAAAAAGGAGGCTACAGAACCACAACAGTC
ATTTTTTATCCAAAAGATCCCACAACAAAACCATTCAGTGTATTGCTATATATTGGAACATGTGATAATCCTGAT
TATCTTGGTCCTGCACCTCTGGAAGACATTGCTGAACAAATTTTAAATGCAGCTGGTCCAAGTGAAGAAATACA
GAATATCTTTTGAACCTTGCAATTCTATTAGGAACCTTGTGCCAGAAGAAGCAGATGAGCATCTTTTCGCTTG
GAAAAATTAGTAAAGGAACGTTTAGAAGGGAAACAGAACCTCAATTGCATATAATTTAGTCTTCAGAGAATTAAC
TTCAGTGCACAATGACAATATGATTGGAAATACGTTTACTTAAAGATCTTATTTTTAATGTAGTGAGGATATTA
TTTAAACTTTTATTTTAACTGGAAATGTCCTGAAACACATATTTAAAAATATTGGGATACAGTGAAAGAAAAATTC
AAATTTTAATAACATAAAGATTTCTTAACTTTATGTTATTGAACACTTACTACTAGAGTGAGTTCTTTAGAAA
AATACAGTGAAGGACTCAGTTCAGTCTTGTTTTTATCAGAGTGATAATCATCCTGTTTCACATCCCAATACTATT
TTGAAATTCTAAACAATTAAACCAAAATTCCAATAAATATAAGGTTATGCCTTCAATATATTCTATACAATTCT
GTAACCATGGTTTAAATAACACAAGCTTAAATAACATGCTTAGAAATACACAATAATATGAACAGTATTTTCAGC
CTTAATTGTGAATTTCTTGTTATTCAAGTATTAAATGAAATCTTTTGAGTTTTTAGCCAAAAATTGGCATT
AAAATACGAAAAATTCCTTGAATTATAATGTACTGTACCTCTCTTTTTTAAATAAAGGCATTTTACTATATGG
AAACTAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 1438

MWVFGYGSLIWKVDFPYQDKLVGYITNYSRRFWQGSTDHRGVPGKPGRVVTLVEDPAGCVWGVAYRLPVGKEEEV
KAYLDFREKGGYRTTIVIFYPKDPTTKPFSVLLYIGTCNPDYLGPAPLEDIAEQIFNAAGPSGRNTEYLFELAN
SIRNLVP EEAD EHLFALEKLVKERLE GKQNLNCI

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FIGURE 1439

GCTCAGTGGGGGCGGCTACTGCTCATGTGATTGTGGAGTAGACAGTTGGAAGAAGTACCCAGTCCATTTGGAGAG
TTAAAACTGTGCCTAACAGAGGTGTCCTCTGACTTTTCTTCTGCAAGCTCC**ATGT**TTTTCACATCTTCCCTTTGAC
TGTGTCCTGCTGCTGCTGCTGCTACTACTTACAAGGTCTCAGAAGTGAATACAGAGCGGAGGTCCGGTCAGAAT
GCCTATCTGCCCTGCTTCTACACCCAGCCGCCCCAGGGAACCTCGTGCCCGTCTGCTGGGGCAAAGGAGCCTGT
CCTGTGTTTGAATGTGGCAACGTGGTGCTCAGGACTGATGAAAGGGATGTGAATTATTGGACATCCAGATACTGG
CTAAATGGGGATTTCGCAAAGGAGATGTGTCCCTGACCATAGAGAATGTGATTCTAGCAGACAGTGGGATCTAC
TGCTGCCGGATCCAAATCCCAGGCATAATGAATGATGAAAAATTTAACCTGAAGTTGGTCATCAAACCAGCCAAG
GTCACCCCTGCACCGACTCTGCAGAGAGACTTCACTGCAGCCTTCCAAGGATGCTTACCACCAGGGGACATGGC
CCAGCAGAGACACAGACACTGGGGAGCCTCCCTGATATAAATCTAACACAAATATCCACATTGGCCAATGAGTTA
CGGGACTCTAGATTGGCCAATGACTTACGGGACTCTGGAGCAACCATCAGAATAGGCATCTACATCGGAGCAGGG
ATCTGTGCTGGGCTGGCTCTGGCTCTTATCTTCGGCGCTTTAATTTTCAAATGGTATTCTCATAGCAAAGAGAAG
ATACAGAATTTAAGCCTCATCTCTTTGGCCAACCTCCCTCCCTCAGGATTGGCAAATGCAGTAGCAGAGGGAATT
CGCTCAGAAGAAAAACATCTATACCATTGAAGAGAACGTATATGAAGTGGAGGAGCCCAATGAGTATTATTGCTAT
GTCAGCAGCAGGCAGCAACCCTCACAACCTTTGGGTTGTGCTTTGCAATGCC**ATAG**ATCCAACCACCTTATTTT
TGAGCTTGGTGTTTTGTCTTTTTTCAGAACTATGAGCTGTGTACCTGACTGGTTTTGGAGGTTCTGTCCACTGC
TATGGAGCAGAGTTTTCCATTTTCAGAAGATAATGACTCACATGGGAATTGAACTGGGACCTGCACTGAACCTTA
AACAGGCATGTCATTGCCTCTGTATTTAAGCCAACAGAGTTACCCAACCCAGAGACTGTTAATCATGGATGTTAG
AGCTCAAACGGGCTTTTATATACACTAGGAATTCTTGACGTGGGGTCTCTGGAGCTCCAGGAAATTCGGGCACAT
CATATGTCCATGAACTTCAGATAAACTAGGGAAAACCTGGGTGCTGAGGTGAAAGCATAACTTTTTTTGGCACAGA
AAGTCTAAAGGGGCCACTGATTTTCAAAGAGATCTGTGATCCCTTTTTGTTTTTTGTTTTTGAGATGGAGTCTTG
CTCTGTTGCCCAGGCTGGAGTGCAATGGCACAATCTCGGCTCACTGCAAGCTCCGCCTCCTGGGTTCAAGCGATT
CTCCTGCCTCAGCCTCCTGAGTGGCTGGGATTACAGGCATGCACCACCATGCCAGCTAATTTGTTGTATTTTA
GTAGAGACAGGGTTTCACCATGTTGGCCAGTGTGGTCTCAAACCTCCTGACCTCATGATTTGCCTGCCTCGGCCTC
CCAAAGCACTGGGATTACAGGCGTGAGCCACCACATCCAGCCAGTGATCCTTAAAGATTAAGAGATGACTGGAC
TAGGTCTACCTTGATCTTGAAGATTCCCTTGGAATGTTGAGATTTAGGCTTATTTGAGCACTACCTGCCCAACTG
TCAGTGCCAGTGTCATAGCCCTTCTTTTGTCTCCCTTATGAAGACTGCCCTGCAGGGCTGAGATGTGGCAGGAGCT
CCCAGGGAAAAAGGAAGTGCAATTTGATTGGTGTGTATTGGCCAAGTTTTGCTTGTGTGTGCTTGAAAGAAAATA
TCTCTGACCAACTTCTGTATTCTGTGGACCAAACCTGAAGCTATATTTTTACAGAAGAAGAAGCAGTGACGGGGAC
ACAAATTCTGTTGCCTGGTGGAAGAAGGCAAAGGCCTTCAGCAATCTATATTACCAGCGCTGGATCCTTTGACA
GAGAGTGGTCCCTAACTTAAATTTCAAGACGGTATAGGCTTGATCTGTCTTGCTTATTGTTGCCCCCTGCGCCT
AGCACAATTTTGACACACAATTGGAACCTTACTAAAAATTTTTTTTTTACTGTTAAAAAAAAAAAAAAAAAAAA

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FIGURE 1440

MFSLPFDVLLLLLLLLLRSSEVEYRAEVGQNAYLPCFYTPAAPGNLVPVCWKGACPVFECGNVVLRTDERDV
NYWTSRYWLNDFRKGDVSLTIENVILADSGIYCCRIQIPGIMNDEKFNKLVIKPAKVTPAPTLQRDFTAAFP
MLTTRGHGPAETQTLGSLPDINLTQISTLANELRDSRLANDLRDSGATIRIGIYIGAGICAGLALALIFGALIFK
WYSHSKEKIQNLSLISLANLPPSGLANAVAEGIRSEENIYTIEENVYEVEEPNEYCYVSSRQQPSQPLGCRFAM
P

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FIGURE 1441

TCGACCCACGCGTCCGACTTCGGAAACTGAATAAGGTGATTAGTGACCTGACTCCAGTCAGTGAGCTTCCCTTAA
CAGCCCGACCAAGGTCAAGGAAGGAAAAAATAAGCTGGCTTCCAGAGCTTGTCGGTTAAAGAAGAAAGCCCAGT
ATGAAGCTAATAAAGTGAAATTATGGGGCCTCAACACAGAATATGATAATTTATTGTTTGTAACTCACTCCATCA
AGCAAGAGATTGTAAACCGGTACAGAATCCAAGAGATGAGAGAGGACCCAACATGGGGCAGAAGCTTGAAATCC
TCATTAAAGATACTCTCGGATTTGTCCTACAGCTTAGTATTGTGGTTGACAGCGATACTAGGGCTGACAGCACAG
AAGTCACAAGAGAAGAGTGGAAGGGCAAGAATTCAAAGCATTGTTCATACAATGTGGCAACCTCTTTTGCATAG

TTGCGTAGGATCCTGTTTGTAAATGCTATCATAAATATTCTGTAGTTTTTTTTTTTTCTCTCCCAACTGGAGCTAT
GACACTTTTTATTGGATTCAGTCTTGCTCTTGCTAGAAAGAACTTTATCTTGTTGACGCATGAGCTGTTTAAA
AATTATCCTATTAAATGTTGGTTAATAGTTGTGCAGTTTTTCATTCAGATGGAAAGGCAATGCAAATTTGCCT
TTGTTTTCTGTACCTTCCAACCCCTGAGCACTTCTAGTCAGATACAGATTCATCAGTGTATGCAACATCCTTTG
TAATTTAAATAAAAAAAGATGAAAAAAAAAAAAAAAAAAGGGCGGCC

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FIGURE 1442

MREDPTWGRSLKSSLKILSDLSYSLVLWLTAILGLTAQKSQEKSGRARIQSICSYNVATSFA

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FIGURE 1443

AAATTTTTTCTACTAGCTACTGAGGCTGCCACATCTGGATGGAAGTGAAGTGGAGGGGGAAAAGAATGAAAAAC
TCAAAAGAATTCCCATGAGGGTGTCTTGCTTTCTCTCCTGAGTTACAATACTTTAGCAAAATCATGAGGCTTTAG
AGATATGGTGTAGTCTGCAAACCTTCTTAATGCCCTTACCCACATTTACCATGTTTCCTGGCCTTCCTCTGTGTCA
ACTCTTAGCTCTTCCTAATCATTATTTAATACATGAGTGAGTTTAGTAGTGATCATATTTCTCAGGTCCTTTAGA
AGCTGGAATTTTAAAAGAATTAGAAGGAGGAGTATGTGAATTTCTTTGGAGCTCACTGCCTGACTTGCTTATGACC
AGGAAAATCTATCCCCTGTATCTAATTTTAATTTTCATGGTTAAATTTGAGAATTGTGGAACCAAGTTCACAAG
GCTATTCTCATATTTCTCCCAATTTCTTTTTTCAGCCAACTCCAAGGATATGTATCACCTTTGACTTAAATTTGCTT
TCTCTAAGGGAAAGGGGAAAAATGTTACATAGCTCCACTGCAATGTTTTTATAATAGAGGAGAGATATTGTA
AATAGAGACTGCCAGCCAGTTTCCACAAAAAACGAAGAGTTCATAAATTTGACATGTTTGAACCCATAAAGCAT
TTTCTTTGCTTGGAACCATTTATAAAAGTAAGTGAGTTTTTCAGGCTCTATATACATTTTAATTCCTCACGTTTTAT
ATTGGAGAGTTTCGGTACAGACTGTCCATTACTGCACCAAAAGAATGAGTGAAGTGTACCTATAGGGAAAGAACA
CTTCTTCTTCTGCTGTTTGGGAACCATCTCAGTGTGGCGTAATGGTTAGGAGTACAGATTCCAGATCCTGTTTC
TTAGATTTAAATCTTGACTCTGCCACATACTAGCTGTCTGACTGAACCTTGGNNNNNNNNNNNNNNNNNNNNNN
NNNNNNNNNNNNNNNNNNNNCAGTACTTACCTCATAGAGCTGTTGTGAAAAGTGATGACTGAATATGTAAAAGCAC
CCTAGAAACAGTGCCTGGCACATGCTAAGTGCTTTGTTTCATTATTGTTGTTATTATGTAATTTTCTCTCAGACTG
AGAGCACTGTTAGTGACCCAAGTAAATTTATAGTTTTTAAGTACAGAGGAAAAATAAAGCCTATTTTTTGTAAAC
AGTCTTAATAAATAATAAAATGGAATAAAGAAACCAAGACCCCAAAAAA

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FIGURE 1444

MTRKIYPLYLILISWNLRIKETKFKAILIFLPISFSANSKDMYHL

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FIGURE 1445

[illegible]

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FIGURE 1446

MFCHLGDKSSCXX
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXQ

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FIGURE 1447

TCATCAGCACAGCAATAGATCTAACGTTCCCGCCAGGGGTACTGGTCAGCGTTGGTTCTTTAGAAAGCCTGTGTA
GAATCGATTAAAAATTGCTCAGCACTTACTACAGCCATTTTCAACCAAGAAAAAATAATTTTCGGGACTCACTT
ATATTCCACAGTTTAAATATGGACAATTAATAGGTCAAGGTCCAGGCTGGAAGGGGACCACTTCGAATCTTGAAT
GCAGGGGCAAACAGCTCAAGACACCATGGCTGATGAAGACGCTATGTACACGCTTCCAGTATGAAAACCAATGA
GCTACATGGGGCTGGCGAACAC

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FIGURE 1448

MKTNELHGAGE

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FIGURE 1449

AAAACCTTGAGGTGATTCACTTCCAGGCTCTCCTTCCATCAAGTCTCTCCTCCCTAGCGCTCTGGGTCTTAAT
GGCAGCAGCCGCCGCTACCAAGATCCTTCTGTGCCTCCCGCTTCTGCTCCTGCTGTCCGGCTGGTCCCGGGCTGG
 GCGAGCCGACCCCTCACTCTCTTTGCTATGACATCACCGTCATCCCTAAGTTCAGACCTGGACCACGGTGGTGTGC
 GGTTC AAGGCCAGGTGGATGAAAAGACTTTTCTTCACTATGACTGTGGCAACAAGACAGTCACACCTGTCAGTCC
 CCTGGGGAAGAACTAAATGTCACAACGGCCTGGAAAGCACAGAACCCAGTACTGAGAGAGGTGGTGGACATACT
 TACAGAGCAACTGCGTGACATTCAGCTGGAGAATTACACACCCAAGGAACCCCTCACCTGCAGGCCAGGATGTC
 TTGTGAGCAGAAAGCTGAAGGACACAGCAGTGGATCTTGGCAGTTCAGTTTCGATGGGCAGATCTTCCTCCTCTT
 TGA CTCAGAGAAGAGAATGTGGACAACGGTTCATCCTGGAGCCAGAAAGATGAAAGAAAAGTGGGAGAATGACAA
 GGTGTGGCCATGTCCTTCCATTACTTCTCAATGGGAGACTGTATAGGATGGCTTGAGGACTTCTTGATGGGCAT
 GGACAGCACCCCTGGAGCCAAGTGCAGGAGCACCACTCGCCATGTCCTCAGGCACAACCCAACTCAGGGCCACAGC
 CACCACCCCTCATCCTTTGCTGCCTCCTCATCATCCTCCCCTGCTTCATCCTCCCTGGCATCTGAGGAGAGTCCTT
 TAGAGTGACAGGTTAAAGCTGATACCAAAGGCTCCTGTGAGCACGGTCTTGATCAAACCTCGCCCTTCTGTCTGG
 CCAGCTGCCCACGACCTACGGTGTATGTCCAGTGGCCTCCAGCAGATCATGATGACATCATGGACCCAATAGCTC
 ATTCAGTGCCCTTGATTCTTTTGCCAACAATTTTACCAGCAGTTATACCTAACATATTATGCAATTTTCTCTTGG
 TGCTACCTGATGGAATTCCTGCACTTAAAGTTCTGGCTGACTAAACAAGATATATCATTTTCTTTCTCTCTTT
 TGTTTGAAAATCAAGTACTTCTTTGAATGATGATCTCTTTCTTGCAAATGATATTGTCAGTAAATAATCACGT
 TAGACTTCAGACCTCTGGGGATTCTTTCCGTGTCCTGAAAGAGAATTTTAAATTATTTAATAAGAAAAAATTTA
 TATTAATGATTGTTTCCTTTAGTAATTTATTGTTCTGTACTGATATTTAAATAAAGAGTTCATTTCCCAAAAAA
 AAAAAAAAAA

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FIGURE 1450

MAAAAATKILLCLPLLLLLSGWSRAGRADPHSLCYDITVIPKFRPGPRWCAVQGQVDEKTFLLHYDCGNKTVTPVS
PLGKKLNVTTAWKAQNPVLREVVDILTEQLRDIQLENYTPKEPLTLQARMSCEQKAEGHSSGSWQFSFDGQIFLL
FDSEKRMWTTVHPGARKMKKEKWENDKVVAMSFHYFSMGDCIGWLEDFLMGMDSTLEPSAGAPLAMSSGTTQLRAT
ATTLILCCLLIILPCFILPGI

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FIGURE 1451

CTGGGGTTGGCAGTCTGCTTAACAAGAXGCTGGGACCACCTCTGAATTAGTGAATCAGGGAGCTGCTGTGTGATC
CCCTCCTCCAGGCTTTCTTGGAGTTTGTCTCTGCCACTTCCTCAAGCCCTTTAAAAAGGCTCCTGTGCTTTAGAG
AGTWAGGATGTAAATGACCGTTCTTTTTCTTGTACTTTATTAAGTACTAGTCTTACTAGACTAGTGCTTAAGTG
GCAGTGTCTGCCTTTGCCCTTCTCCCATCTCTTATGCTCCTTTCTTCCAACCTTCTCACGTTTCTGTTTCTCGCAC
GGCCAGGTGTCCAGCATCCCATGCTGACTTGCGGTTGGCCAATCCCTCCTCGTAGATTTCTCCACATTTTCCT
CTTCCTCCTTTTCCTGTGGGAAGTTCTTTTTCTGGGCTGTGGCTGGTCTTACGTAGTTCGGTGGAAGTATTG
AGGTAGTGTTAGATACTGTGCTGCACCTCCAGGAGTGTCCAATCTTTGGCTTCCCTGGGCCACACTGGAACAAG
AAGAACTGTCTTGGGCCACACGTAAAATACACGGACACTAACGATAGCTGATGAGCTAAAAAAAAAAAAAAAAAA

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FIGURE 1452

AACAATGGATATTCTGTAAATATCCTGTACAAAACAAGACTATTGCCAGTAATGTATACAAATTGTCTTTTGT
GTACTTCCAGCATAGGTTTGGATATATGAACATTTTTCTTTTATTGTTTTATCTTCACAGAAAATAAAAGGTGTT
AATTTGCTTTTTAAAACAAATTTAATTATCACATTTTAAATTACTTTGTGGACTGTGTTTTCAAACTTTGCAAA
TTCATCTGTTACACAGAAAATTTTGACTTAAACATCTGCTGAATTCCAAATTTCTGTAATAGCTACTGTATCTG
TGATAAACTTTTCTATATCTTTCTTGCCATTTCTATGGATTTTATAATGAAAGAAAAAGGCATTGGAGACTGAA
GGCAGAAATGGTTGTGACAGTGCTGTTTGGCTTTTTCAATCTTCAAATGCCAAGTCATCCACTTTGTTTTCTGT
TTAGGCTTTGCACAAATACAATTGCTTTTCCAGGAATCCTAAAGCAGCATTTTATTGAGTTTGAATTATTAAAGGTA
CAGAGGAAATGTGGTGATGTAGAATTTTCTAACACAGGTATCTAGGAAGTAAGTGCTGAGTTGATTTTCTAGG
TTCTTACGTATTTGAAAAATAAAATTGCAATTCGAGATAAGTGCTTGAGCACTCTACTTAAGTATTCTCTGTGTT
TTATGAAGAGAAAATGATCTGATTTTCCCTTATACTTCATTTTACAATACATATTCCTTTTAACTTAAAAAAT
TGTAATGTGGGAGAAAAACCCTGCAGGATGGAAACAATTATTAAGAATGTAGATCAATAAGTACTTTTTAGTG
ATGTGGCAGAAATCCCTGTTGATTCTAAGTTTTAGAGTGCTTTTCCCCTATTTCTGACCTACAACATAAACTA
CTCTCTATTAGGAGAACTAGACCACTTTCTTCATTCCTTTTCTAACTGCTGCAGATTGCCGTGAACCTCTATCAAT
AGTCTCTTTTCCGCAGGCAAAGTGCCATTTTCTAAACATGTTTGCTTACTGCCAGGTGGTTTGAAATCTATGATT
TACTGCAGTAGTATGTGCTTAAACAACCTGTTGAGGTCTTTAAGCAGGAAAGTTCAAAGGAAGTGTCCTGATA
ATGGTACTGGTTTTTCTACAAATATTAAGTAGTCATTAGAAGTTTGCAACCACCACCAAGTCTGAGAGAACTCTGG
GATATTCTGTGGGTTTGGCATATTAGATAGAGAAAATGACAGATCTAGATGAAGGGAGCTTTTGATGTGTGCCT
TTAAAACTGATTATGTATAAATACTGATATTTACATACGGAGATATTTGAAGACCCAAGTCTGCCTTTCACAG
AGCCCTCCATTCCAAGTTTAGTTTTTGTCAAAATATGAATCATTTTATTTGACTGTACTATCAGTACACAAATGC
ATGAGTATGTTTATACAGTGTTAGACTGATGTGAATTTGCATTTGTTACATTACATTGCCAGCGCATATCATTTA
GCAAGTTGGCATTAAACATTTATGCTTTAATTAAATGCCAGTATACCTATGTGTGCAGCAGTAAAAAATTAGTGAG
AAAAAGCAACTTTTTGTCACTCTTAGGAAATATTTGTCTTATTAGTGTTCTTGGCACATGTATATTACTAAAGT
AGATAATTCCAATGAGAAATACTACCAGATTATTGTTATAAAATTAATTTACAATGTCCCTGATATTGAGCTAAC
TCTTAAAAAAACCAAACAAACTCGTATCTGAGTGTAACTTTGCCAATATTTTAAAAGCCAAAATATTCTCTGGA
CAACAAATTTGIATTGCTCAGGGACAGTTTACCTTGCTGGTAAACCTTCCCAAACAGAAATATAGCTATACTAT
CTTTGGTTTTGT

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FIGURE 1453

MWQKSLILSFRVSFPLFLTYNYKLLSIRRTPLSSFFSKLLQIAVNSINSLFSAGKVAFSKHVCLLPGGLKSMI
YCSSMCLKQLLRSFKQESSKGSVLIMVLVFLQI

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FIGURE 1454

GAGAGCCAGAGGCCACTCTTTATTGCTTTTTTCTCAGGCTTCTGCTTGTGTGATCAGGGNAAGGGATCCACAT
ATGGGAATGGTTAGTGGCTTTTGGGACTCTCCAGGAGCCTCTGTTTTAAGAATGAGGCCAAATGTGCAGGCTCAG
GCCAAGCGGCAGAGATGAATGAGGTGATGACCACAGCCTTGATCCGGCAGGAGCTCAGAGATGCCCGGGAAGACG
GGGGGCCCCGAACGGAAGCAGAAAAACACTTATGGCCGCTGGGAAGTTGGGAGAGCGAGGCTGGGGCTCTGGCAGG
CCCAGGGAAAGTTCCCTGTCTAGGCTCTTTATTAAAAAATTTAAAAGGAGGAGTTGAGGCACCTTGAATATTCTT
TCGCGAGTCTTGGAGACTAGCCGATTTTTTCATGAAGCAAGCAAAGACCGCGGTCCCGGATCCTGCAACTTCTACC
TCATTTTCTCCAGGCCTCTCCACTTGCCCGAGCTCTCAGCCACCAGGAGACAGATGGAAGGGGCTTCTGGATTGC
GTTGGGAGCGGGCACTGTCCCCTACCCACTCCTGCTCAGTTTCCCAAAGTCCAGCGACTTCCGACCCTCCTTGGG
GGGAAAAATACCAGTACCCAGACACCTTTGCACCCTGTTATATGAAGTGGGCTTGCTTCAGGAATATCTTACAAAG
AAAAGAAGAAGAAAGAACGGCTTGGAGTCATGTTTACATCTAGTTCTACTGATCCGTTACATCTGGAGAGTTTA
TTTATAACTCCCTCTATAACTCTCTGTTTGGAGACACTGTGGCTCTATTGACAGACTGATATCTAGGAAATATTG
CTCTATGTCTAACCCTACCTAAATGTGCTGTGGTTGTATTTACAGATTTATGTTTGAGGGAAATATAACTATTTT
CATTGTATTTGTGCATATACAGTAGTTATAGGAGCAGATTTATATATGGGAAAATATACGACTCTCTTACAGCCA
TCCAGCTTTATGTACATTTGATATCCTGACAGATTTATATCTCTGAACAGCTATATTGATCAAAACGTATATTGT
TAGAATTAATGTGTCCGAAGATTTTTTCTTATT

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FIGURE 1455

MKQAKTAVDPATSTSFSPGLSTCPSSQPPGDRWKGLLDCVSGHCPLPTPAQFPKVQRLPTLLGGKNTSTQTPL
HPVI

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FIGURE 1456

CTGCGCCTGGCGTCACCGACCGGTGCGGACAGGAAGAGGCTCTGGGCTGGCACATGTGTATGGCGGTGAGGCGGG
CGGGTAC**ATG**GCGGGGCTCTGTGGGACTGGCGTTGTGCGGGCAGACGTTGGTGGTGCGGGGCGGCAGCCGATTCCCT
GGCCACCTCCATAGCAAGCAGTGATGATGACAGCCTCTTCATCTATGACTGCAGTGCTGCAGAAAAGAAGTCACA
AGAAAATAAAGGGGAGGACGCGCCCTTGGACCAGGGGAGCGGTGCGATTCTGGCGTCCACCTTCTCCAAGTCTGG
CAGCTATTTTGTCTTAACCGATGACAGTAAGCGTCTGATTCTTTTCCGTACAAAACCATGGCAATGTCTGAGTGT
CAGGACCGTGGCAAGGAGGTGTACAGCCCTGACTTTCATAGCCTCGGAGGAGAAGGTCTTGGTGGCCGACAAGTC
TGGAGACGTCTACTCCTTTTCGGTGCTGGAGCCACACGGGTGTGGCCGTCTAGAGCTGGGGCACCTGTCTATGCT
GTTAGATGTGGCTGTGAGTCCTGATGACCGCTTCATCCTCACTGCCGACCGGGACGAGAAGATCCGAGTCAGCTG
GGCCGCGGCGCCCCATAGCATCGAGTCCTTCTGCTTGGGGCACACAGAGTTTGTGAGCCGTATCTCCGTGGTGCC
AACTCAGCCCCGGGCTGCTTCTGTCTCCTCTGTTGGGGACGGCACCCCTGAGGCTCTGGGAGTACAGGAGCGGCCGCA
GCTGCACTGCTGTACCTGGCCAGTCTGCAGGAGCTGGTGGACCCCCAGGCCCCCAGAAGTTTGCCGCGTCCAG
GATTGCATTCTGGTGCCAGGAGAACTGCGTGCGCTCCTGTGCGACGGCACTCCTGTGGTCTACATCTTCCAGCT
GGACGCCCCGACAGCAGTGGTGTACAGGCAGCAGCTGGCGTTCCAGCACCAAGTGTGGGACGTGGCTTTTGA
GGAGACCCAGGGGCTGTGGGTGCTCCAGGACTGCCAGGAAGCCCCCTGGTGCTCTACAGGCCTGTGGGCGACCA
GTGGCAGTCTGTTCCCTGAGAGCACCGTGTTAAAGAAAGTCTCTGGTGTTCTTCGTGGGAACTGGGCCATGCTGGA
AGGCTCTGCCGGCGCAGACGCCAGCTTCAGCAGTCTCTACAAGGCCACGTTGACAACTGACCTCCTACCTGAA
GAAGAAAGAGGAGAGACTGCAGCAGCAGCTAGAGAAGAAGCAGCGGCGCCGGAGTCCCCCGCCTGGGCCCCGACGG
GCATGCCAAGAAGATGAGACCGGGGGAGGCGACGCTAAGTTGCT**TGAT**CGTGCGGTCTGTTTCTGTGCGACTGTGG
ACCACTTATGTGCGATCCGTGGACCACTTGCCTGCGATCTGTGCGCCGACGATGAGCTTGTTCGGATGTAGCTCC
ATCGTAAGTCGAGGAGCATCTGTGATTTGTCCTCTGCTTATGGGATATGTTTTCCGCTACTGAGTCTGTGTAGT
AAATTTTTGACTAGGAA

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FIGURE 1457

MAGSVGLALCGQTLVVRGGSRLATSIASSDDDSLFIYDCSAAEKKSQENKGEDAPLDQGSGAILASTFSKSGSY
FALTDDSKRLILFRTKWPQCLSVRTVARRCTALTFIASEEKVLVADKSGDVYSFSVLEPHGCGRLELGHLSMLLD
VAVSPDDRFILTADRDEKIRVSWAAAPHSIESFCLGHTFVSRI SVVPTQPGLLLSSSGDGT LRLWEYRSGRQLH
CCHLASLQELVDPQAPQKFAASRIAFWCQENCVALLCDGTPVVYIFQLDARRQQLVYRQQLAFQHQVWDVAFEET
QGLWVLQDCQEAPLVLYRPVGDQWQSVPESTVLKKVSGVLRGNWAMLEGSAGADASFSSLYKATFDNVT SYLKKK
EERLQQQLEKKQRRRSPPPGPDGHAKKMRPGEATLSC

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FIGURE 1458

GCTGACACCTGCCCAGTGGAAGCTGGCATCCCTCCCCTTGTGGGTTTCAGAGCTGCAAGAAGCACCAGGCTCGGCC
ACTTCAGAAGCCCCAGCCTCGACCTAGCCACCCTCTCAGGGCCACAGTGCAGAAGCCTGCACACCTGCCAAGTC
TCTCCGACTCCTTGCAGCTGCTGTTCAGCATGGGCCAGGCTCCTGCTGACCCGGGCAGAGAAGGCCACCTTGAACA
AAGAATCCTGCAGGTGCTGACAGAGGCTGGCTCCCCGGTGAACTTGCCCAGCTGGTGAAGGAATGCCAAGCACC
CAAGAGGGAGCTCAACCAAGTCCTCTACCGAATGAAAAAGGAGTTGAAAGTCTCCCTCACATCCCCTGCCACCTG
GTGCTTGGGCGGGACTGATCCTGAAGGCGAGGCTCCTGCAGAGCTGGCCTTGTCAGCCCTGCCGAGAGGCCCA
GCAACATGCAGCTACAATTCCAGAGACCCCTGGCCCTCAGTTCAGCCAACAACGGGAGGAAGACATCTACAGGTT
TCTCAAAGACAATGGTCCCCAGAGGGCCCTGGTCATCGCCCAAGCACTGGGAATGAGGACAGCAAAAGATGTGAA
CCGAGACTTGTACAGGATGAAGAGCAGGCACCTTCTGGACATGGATGAGCAGTCCAAAGCATGGACGATTTACCG
CCCAGAAGATTCTGGAAGAAGAGCAAAGTCAGCCTCAATTATTTACCAGCACAAATCCAATCAACATGATCTGCCA
GAATGGACCCAACAGCTGGATTTCCATTGCAAATCCGAAGCCATCCAGATTGGACACGGGAACATCATTACAAG
ACAGACAGTCTCCAGGGAGGACGGTTCCGCCGGTCCACGCCACCTCCCTTCAATGGCACCAGGTGATTCTCAAC
TTGGGGGACCCTAGTTGATCCCTGGGGGCCCCAGGACATCCACATGGAGCGGTCCATACTGAGACGGGTGCAGCT
GGGACACAGCAATGAGATGAGGCTCCACGGCGTCCCGTCCGAGGGCCCTGCCACATCCCCCTGGCAGCCCCC
AGTCTCTGCCACTGCTGCCGGCCAGAAGCTTCGTTTGAAGCAAGAATTCCCAGTCCAGGAACCTCACCTGAGGG
GGAAGCCGCCCAGAGAATCCACATGAAATCGTGCTTTCTCGAGGACGCCACCATCGGCAACAGCAACAAAATGTC
TATCAGCCCAGGGGTGGCTGGCCAGGAGGAGTCGCAGGGTCTGGAGAGGGGAGCCAGGGGAGGACGCAGGTGC
TCGTCCCGCAGACACACAATCCAGAAGTCACTTTCTCGAGACATTGGTCAGCCCATCACTCCCAGCCACTCGAA
GCTCACCCCCAAGCTGGAAACTATGACTCTTGGAACAGGAGTCACAAAGCTGCAGAAGGCAGCCACTATGTGGA
TGAAGCCTCACACGAGGGGAGCTGGTGGGGAGGTGGGATTTAGTGCACAGCCTCACGTGGGGCTTGACACAGGC
TGGGGGTGGGCGCATGCTAGGGAGACTAGCCTGCTGCTCTCTGCATTCTTAGCGTCTTGTGTTGACCTGCTTGCT
TCCAGACATAACCTGCATGAATCAGTTTTGGGGGAATGGACCTGGCATGGGGATGGGTTTCAGGCCAGGTCTTTTG
ATGGCCAGGAGTAGATGACAGGGAGTTGCCTTGGGGAACCTTTGGTGTGCCAAGAGGAGGTGGGTAGATGGGAGT
GGGGCTCGGTCCCCCAGGCCAGGGGACTCTCTCCACTCTTTCTGGGCTCGGGGCATCTGCCTGGAGTTACCTT
CCATCATGGCTACCTGCTGTGGTTTGAATGTTTGAAGTCCCAACAAAATTCATATCAAAACATAATCCCAACTGGG
TGCAGTGGCTCACGCCTGTAATCCCAGCACTTTGGGAGGCCGAGGCGGGCGGATCAATAGGTGAGGAAATCCAGA
CCGTCTGGCTAACATGGTGAAACCCCGTCTCTACTAAAAAAAAAATACAAAAAATTAGCCGGGCGTTGTGGCG
GGCACCTGGAGTCCAGCTACTCCGGAGGCTGAGGGAGGAGAATGGTGTGAACCCGGGAGGTGGAGCTTCCAGTG
AGCCGAGATCGCGCCACTGCACTCCAGGCTGGGCGACAGAGCGAGACTCCGTCTCAAAAAATAAATACATAAAT
AAAAAATAAACCAACCATAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 1459

MAQAPADPGREGHLEQRILQVLTEAGSPVKLAQLVKECQAPKRELNQVLYRMKKELKVSLTSPATWCLGGTDPEG
EGPAELALSSPAERPQQHAATIPETPGPQFSQQREEDIYRFLKDNGPQRALVIAQALGMRTAKDVNRDLYRMKSR
HLLDMDEQSKAWTIYRPEDSGRRRAKSASIIYQHNPINMICQNGPNSWISIANSEAIQIGHGNIITRQTVSREDGS
AGPRHLPSMAPGDSSTWGTLLVDPWGPQDIHMERSILRRVQLGHSNEMRLHGVPSEGPAHIPPGSPPVSATAAGPE
ASFEARIPSPGTHPEGEAAQRIHMKSCFLEDATIGNSNKMSISPGVAGPGGVAGSGEGEPGEDAGRRPADTQSRS
HFPRDIGQPITPSHKLTPKLETMTLGNRSHKAAEGSHYVDEASHEGSWWGGGI

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FIGURE 1460

GCAGAATCAATATGTGCACAGTTCTCTTTATCAGGCAAAAACACGTTTATTGAGACATGAAATGAGAATCAGGCT
GAAGGAATCATGCAGCTGAAGATGATTATATTCATAGAAATGAAGAGATGAAATATTCAAAGAAGATGGCTACT.
TTATTGTGAGACTTACCACTTTAACCTCATATGTTAACAGCACCTACCAAAAAATGATATGAGATAGAGCTAAAA
TACTGAAATTGCAAAATGGACAAAATAAATCATGAAATTTGTTTATTATTTCTTCAATAAAATATTTCTAGGTGCT
TTGTGATTCTTTCATTTAGTCATTAAAGCCATTGCTTTACTATATTGCGTTGCCACTTTAAAAACAAGTTACTTG
ACATTGTTTTTGACAGATTTCACTATATTCTTATGTAATTAATTGATTATTTCTAAAATGTTTGAATAAACTTTG
TACTCCCTCTAAGGAGTATTTTATTCATTCTTTAATTCCCAAATGAACTTTGAACTTACAGTGCTGTTGAATGC
CTTGGAAGGACTTCTTGAAATTGCATAAACTATTCTTGTAATGGTAACTTGAGAATTTTCTTTGTTTCTTTT
TTCTCTATGTCTTAAAGAATGCCTTTAGAATCTAATTCATGTTGTATCAGATAAGAATGTTTCTGTGGTTTCTCG
TATCAGATGTGTAAAGAAATTATTACTGGGATGCCATTGGCTATGTCTCTTTCCCCTTCATGTAAAAATCCAAG
TGTCAGTAAAACTTCTCTATAATATTTCTTAAACCATTATATAAATTTGTGTTATAATACTCCAGAAAATCAAT
GTAATAAGTGGTCATATATATCACCAACTATGGATATCAAAAAGTTGGGGTCACATCAGTGCTATTTATTTAATT
AAAATACATTGCATATTTCTATTAGCACAACTTCTCTCTAAAAGGTCTGTGTAAGTCTTCTCATCATTATTTG
ATTGCTGTTATGGGATCCTGTCAAACCTGTGTAATTGTTTATTCTCCATTCCCTCAAATACAAAATTGAGTAGGTT
G

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FIGURE 1461

QNQYVHSSLYQAKTRLLRHMRIRLKESCS

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FIGURE 1462

TCATTTTAAAGAGACTCCTGCTATGTTGCACAGACTTGTGAATTCCTGGTTTCAAGTTATCTTTCCCCCTATGT
CACTCAAGTAATGTGGACTACACTCATGTGACACCATGCCCATCTTTATGTTGTGTATCTTATTTTGTGTTTGT
TTACTCTTGAATCAGCTCAGTCTGAAATCTGTCTTTTAATTCATGGGATTTTTAGAAATGATTTCTTGGAGGG
TTTTGTCTTTGAATGTGTGGTCCCTTCTCTGCCTAGAACTTTTTTTTTGAATTGAGAC

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FIGURE 1463

MPIFMLCILFLFCFILESAQSENLSFNSWGFFRMISWRVLSFECVVPSLPRTFFFE

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FIGURE 1464

TGCCTGGCCTGACATTTTTANAAAAAGTTTTATTTTGACGGCTCTAAACCTCCATGTTATTTTCCAGTGGTGTA
GAAGGTACCAGCTAAAGTGAACCACTATGTAATATTAGGCCATTCTAAAGGAAAGATGTTCCATGTCATCAGAGA
TGGTAAAAATAGGCAGGGAAAAAAATCTTTGGTACCAAAGATTACACTTGTGTTTCTACACAGCAAACCATTTT
TCTTTCATGAAAATAATATATTATTAACATGAATATATTATTTTGCTATTAATGTGAAAGTTGTCTCTAAATATT
TTTTAATTTTCAAACTCATACTTTATTTTCATTTGAAATGTTTTTCACACCTTTTGCATTACATAATAATTTTGT
GGAAGCATTTTGGCCCTTTAGAATAAATATTAGATTGATATAGCTGAAATGTGACTTCCAGTTCTTTGATATTCCC
CTTGTTATTCAAATAGAAATATGGAAATGCTTTATATATTACTGTTAAATTTCTTAGTGCAGAAATAACATTATT
AATAGAGTATTGTTTTCAAACAGATGATTAATTTCAAGAGGTTTAAACAGTGAAATTGTGTCAATATTTTGCATT
TAAAATGAATTTAATTGACCGATATTTTCTGTAGTTAAATTTAGTCACAATATCACATATGTTCTTCAAGAAACA
CATGAAATTATTAATAAAGTAATTAATAAATTTTAAATGTATAACAGAATTGACCAATAGGCCAGTTTTCTGGTA
ACTTATGATAGTAGATTGTTTCTTTAGAACTGGGCAGAAAGCTCTGCATTCTCACTTGTTACTTTGATTTCTTATT
TCTTGGTCAGGCAATTTGAGGAAAGAAGAAATGGCATGGGGAATATATATGTTTTGTTTCTTAGGGAAAACAGTC
TGAGAAATGAATAAAAAGCATGAANNNNNNNNNNNNNNNNNNNTACCATGGAAAAGGATATTCACAGTAGTA
CAGTTCTCAATATTTTAAATTAGATGTCATATTTTTTAAATATAGTAAAACCTTGGGATATAGAATATTACATCT
TTTGAGAAATGTATGTGTCTCTAAGTAAGTAAATCTAATGCGTATAGGAGACTGATAGCTAAAAATGAATGGAAC
ATTAATGTACTTTTATAATTAAACCTCTTATCTATCAGAAATTGTAAGAGAATAGATACATGTTTTGAATGTAAA
GTTGAAAAGTCTGGTTTACTGAATAAATTGAAAGTGATTTATAAAATCTAAATTTGGACTACTTGCAAATGATAA
GCTATTCTAGTAGCCTTTAGTTTAAATCCAACAGAAATCTAGAAGTCACAAGCAAATATCTTAAAGGTAAATCC
ATCTGGGCACTCATTTAAAGTATATCTTAAAAAAGCAGCAGCAAGGTACCTTGCCATTTTTAGCATATTTCTTC
CTTTTCTTTTTCTTT

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FIGURE 1465

PGLTFLXKVLFTALNLHVIFQWCRRYQLK

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FIGURE 1466

GAC TTTGTAAACTGAT TTCAGAGAAGCGATTAAGGAATTGTACTGTCTTTAAACAATATTTAGAATGCTTCAGTA
AAAGCATT TTTTAAAAAAT TTTTC TAATGATGTAGTAAATGTACCTAATATAAAAGTTAAGTGGTTTTATTTAATAC
TTTTCACCTGACCATGATTATGTTATAAATAAGAGGATTTATAGTTTGCATGCCTGATATAATCTATTTAATTC
CTTTACAAAAT TTTTGTACATGAAAGATAAATGTCTTCATTTTACCAGCTACCTCCTTCCAGATTGAATGCTTCA
GTGCACTTTGAT TTTCAAATTGGCTATTAT TTTTAAATGTAATTAACCTTCACAATTTAAATTGAAGGATATTCT
GATCCTTAGGTTATAAATATGTGACTTGATGGTTTTATGTAACATTCAAGTAGCATGTTTTCTATAACAATATGAT
AAAAGTTTTGATACATACCTTGTATGTTGCTTGACAGATCTGTTTTAGAAAACATTCCTCTGCCTTTTGAAATGA
AGCCATGTATTTGAAATTATTTCCCAAACAATTATATCTTAAGCGTGTGCTACATAGTAATCATAGTCATTTTAA
TTTAGATTATAAAGCTATATTTTAACTTTGAGGTTTGTGAATTTTCTTAGACATATTAATGACTTTATAGTTAAT
GGTGCTCTCAGATTTTATTTTAAAGTTAAAAATTTGCCAGGCGCGGTGGCTCA

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FIGURE 1467

LCKLISEKRLRNCTVFKQYLECF'SKSIFKKFF

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FIGURE 1469

FPFFLNQRQISDFMNVCHCA

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FIGURE 1470

GTTTCAAAGGCACTCTGTTAGGTGGCATAACAGCCCTGATTAAAAACAGCACTGAACTTAGACATGTTTCATTTT
TTTCTCTAACCTTAGTACCTTTTTTACAGATTGCATATTAACAGCTTATTTTTGCATTTACCTCTGTAAACCCCTCA
ATCAAAATTTATTTAAAATATTGGGAGCTTTTAGTTTAAAGTGATACCTACTGGCCCCTCAAACATCCAGCATT
AAAAAACTAAGACTGGCAGTGAAATAATTATCAAAATTATAGGAAGAATTTTCATTTAGCCAGAAGTGAATTGAA
AAATCCATTTGGT

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FIGURE 1471

FQRHSVRWHTALIKNSTELRHVSFFSLT

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FIGURE 1472

ATGCTTCTTCCCAAGGCAGCATCAAATTTTGAATTAATTTTGTGCTTAATAAGGACTTAAACTGGTACCCAA
GTCAGAAAGACTCTGCCTCTAATTTTCTGGGGCTTGGGGATGAAGATAAAGTGTTACACCCAGTGTTTGTCCACC
ACAGTCTGTGGGGCAGAGAGACCCTTCCTGGGACTGAATTCTCAATTTGAAGCACTGTTGTTCAAAGATCTCCCT
TCTGGGTCTGACAAGAAGAAACATAACCCTTATTTATTGCATTCTTCTGGCTTACATACATTGCCCTCACTAATC
AATGGACATTTCAGCATTTCACTACTAATTTTGAGAGAAGGCCACCATGGAATTTTAATAAAAAATATTATTGAAGA
GAATTGCCATCATTCTCCATTTTCCCTGAACTACCACAAGCTTCTCAGAATTTTAGACAAATGTTTTTCCCCTCA
GAACTGAGCATCAGTGCTGCTTTGGAAAAACATTCCATGTGAATACTGTGGTTTCAGTGTCAGGACCTGTACTTG
GGCAGTTGGCAAGAGAGTGTGCCAGTTTTTTTATTGGGAGATGGGAACACCCAATTTAATTGATGCAATTAGGTTG
TAGGTTTTTTTACAGTTTTTCTTTTCTTTTCTTTTCTTTTCTTTTCT

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FIGURE 1473

MKIKCYTQCLSTTVCGAERPFLGLNSQFEALLFKDLPSGSDKKKHNPYLLHSSGLHTLPSLINGHFSISLLILRE
GHHGI

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FIGURE 1474

GCTCATGTCTAGGCTGAGAGTGAGATAGGAGCCACTGGAAGAATGAGATGATTCAGACAAGAGATTGTAGGAGAT
TGGCTTATTCTGTTGACAAGATGGTAATCCGACTTATTTTTTGGTTTTTGGTGTGGTGGTTTAGGAAGACAGG
AACTTCTCCACACCCGGTAGAGTTTCTGCTGCTTTTCATTAGTCAGCAAGCAGTTTTTCCTTTCTCAAGGCAGTC
CACATCCAGCAAAACATTTGATTAACTGGAAAGCAATACCATTCATGCCAGTGTACAAATTACATGAAAGAGC
ATCATTTTTCTAGTGTCTGAGGATTGGCTGCTTATGGCCAATTTTGGCAGCAAAACGATAGGATTAAAAATAGCT
TGAAGATGATCTAGTCTTAAATAATATATTTTCATGATGAACTTTCCTTGGGAAAGTGCATCTTTCTGCCTACAAG
AATCACATGACCCCTTTCAATAATTTATGTAGTAGAGAAAAACACACTATTTCTCÀTAGAGTTTTTCAGTCATGTG
CTGTGGTGTGATTGTTTTCTGGACATTCATAAAATTTTATAGTTAACTGAGTTCTCTTTTCTGTTTTGTTGCTATT
TAACGTCCATTGAAAACATGGCTTTCTTTTGCGCATTCTGTTACTTTTCAGCTGTACTTTCTAATAAGAATGGATT
GCCCTTTTAGCAATCTTTGATTGAACTGGTACATTTTCAGATTACTTAAATGTCATCAGGCCACACAGCATACCA
GGTAACAGAAAGCCATAAATTAATAAATAAAAAAAGGCAAGC

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FIGURE 1475

MSSGHTAYQVTESHLKIKKRQ

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FIGURE 1476

AGTTAAGTAAATCACCCCAATTTTTCTAATATTTAAGTGAACATTTAAAGATAAGCATTTCCTTAATGTTAATTT
CTTTTCTTTCATGTAATCTTGTGAGTAGACAAATGATGGTGACTATATTCTGTAATAAGTACATATATTATGATT
AAAAAAAAAAGCGTGACTATCTGCCCAAAGAGATCATAAGCACTTTGGAGCTATAAACTTCTTGTCTATTTCTA
CTCCATGGTACTGATATTCTTCTCTCAGATAACCAAACAAAAACAGCTGAATAAAATCAACCATTAATAGTAAA

A

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FIGURE 1477

MLISFLSCNLVSRQMMVTIFCNKYIYYD